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SENTIMENT ANALYSIS TO EVALUATE INFLUENCER MARKETING: EXPLORING TO IDENTIFY THE PARAMETERS OF INFLUENCE

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ABSTRACT

Influencer marketing on social media is trending and penetrating very well. The major challenge is the Influencer Marketing campaigns are very hard to measure and may have serious consequences. Sentiment Analysis can be used to evaluate such Influencer Marketing campaigns and help brands to take informed decisions. The purpose of the research is to evaluate the effectiveness of an influencer creating or boosting intangible assets like and take actionable insights for brands to choose the right influencer for its products. This study identifying the right parameters of influencer marketing through sentiment analysis. During the process the study also highlights the opportunities and challenges it possess. Research study is conceptual in nature. The researcher used secondary data from authentic secondary sources and conceptually demonstrating to analyse and draw conclusions. We will be able to use sentiment score to evaluate such intangible assets and make the right actionable decision. The research will have significant use for Marketing Managers to make sound decision regarding marketing campaigns and brand image. It will also be useful for influencers in order to keep themselves connected and relevant to their audience by knowing the effects of influencer's activities on emotional scale..

1. Introduction

Marketing campaigns are most effective when they are analysed and improvised. Influencer Marketing is proven to be an effective marketing strategy to boost sales, improve brand image or enhance marketing efforts and ROI. Analysing Influencer Marketing is not easy and all required KPIs are not

effectively measured. Hence, a branch of Data Science called Sentiment Analysis is used to analyse such campaigns. Sentiment Analysis is a form of text analysis where machine learning algorithm are applied to such text and audience sentiments can be measured for evaluating an Influencer and Influencer marketing campaign for taking actionable decisions.

1.1 Objectives

1. Study Influencer Marketing and its process as one of the emerging field of marketing in digital space.
2. Overview of Sentiment Analysis and its effects and consequence
3. Exploring the practice for deciphering the parameters of influence within the application of sentiment analysis to evaluate the effectiveness of Influencer
4. Explore the opportunities and challenges of using sentiment analysis to evaluate Influencer Marketing

1.2 Introduction to Influencer Marketing

Influencer marketing is a form of social media marketing through endorsements of products and services through industry experts having a high influence on the large number of the audience creating intangible assets like Brand equity or tangible assets like driving sales for a company (Nadanyiova, 2020).

In this digital powered era, consumers are turning towards each other while making a purchasing decision to ensure they buy a right service or product (Jiménez-Castillo, 2019). Consumers usually use Google reviews, Social Media reviews or review from other business directory listings for reviewing and sharing their experience after buying a product or a service. On the other hand, consumers research and get influenced by such reviews left by other consumers (one who had buying experience) and make their own decision to buy a product or not (Yuan, 2019).

1.2.1 Influencer marketing in digital space

Influencer marketing concept isn't new and have existed long back through impressive TV advertisements and celebrity endorsements. Today in a digitally connected world, everyone is connected to each other around the globe on their fingertips. Digital communication have bought the world closer. Everyone post their views on social platforms and influence each other's decisions to buy a product by commenting or writing an informative blogs reviewing a product .Now a person who is not a celebrity, but having a expertise in a particular field may also endorse a product/service (Kádeková & Holienčinová, 2018).

There 3 kinds of influencer Marketing types in digital space (Maden, 2018):

• Host Giveaways: This kind of Influencer Marketing is to motivate and engage the audience in a very short span of time. For example, an influencer may organise a small virtual competition around a particular brand and announce a gift card giveaway as a award for winners.

- Sponsored Posts: Brands and Influencers collaborate mutually and Influencers create or include a brand in their content in a very creative way. For example, an YouTuber may promote a brand in their creative videos where audience don't get irritated compared to forced advertisements shown to them.

- Affiliate Marketing: When an Influencer promotes a product and generate sales through promotion, they get a predefined commission on every sale which motivates them to promote a brand as much as possible in their own ways.

Today Influencer Marketing is at the peak of the discussion when it comes to marketing tools in digital space. It has been growing since 2012 and now it has established itself in the online marketing ecosystem creating a buzzword and has become a mainstream for advertisers. Influencer Marketing is a blend of old and new concepts giving rise to a new way to market a product or service.

Conceptually, Influencer Marketing is an endorsement given by a celebrity or an Influencer on content driven social media sites such as Facebook, Instagram, YouTube etc.

In a nutshell, Influencer Marketing means a collaboration between an Influencer and a company or a brand to promote, or boost sales of the brand's product. On a minor tangible scale, it can be also done to spread Brand awareness or improve Brand image (Trivedi, 2020). The main focus of campaign results lies onto the collaboration between a company and the Influencer to make it successful.
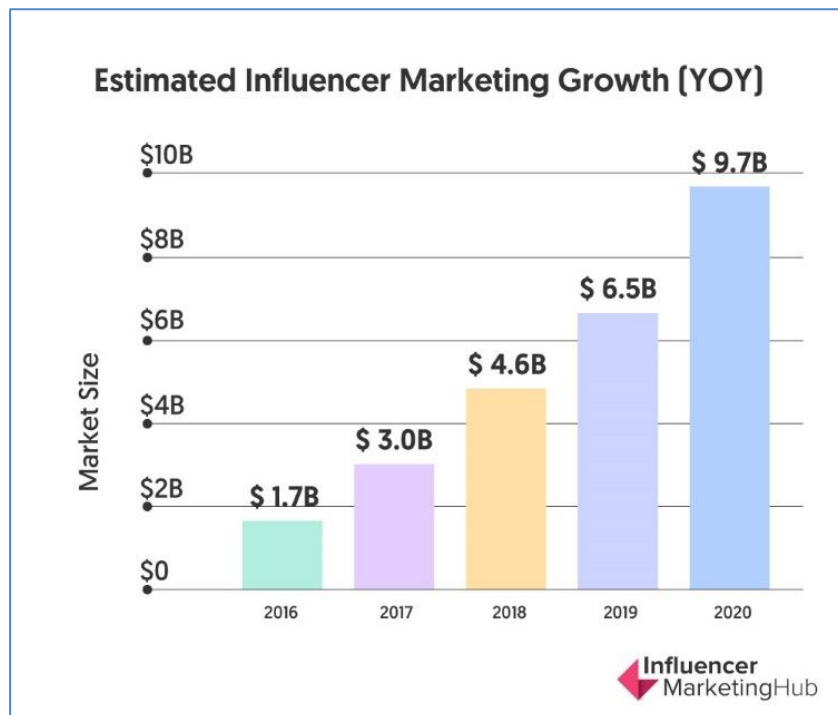

Figure 1: The State of Influencer Marketing 2020: Benchmark Report (Source: https://influencermarketinghub.com/influencer-marketing-benchmark-report-2020/ , Influencer Marketing Hub*)*
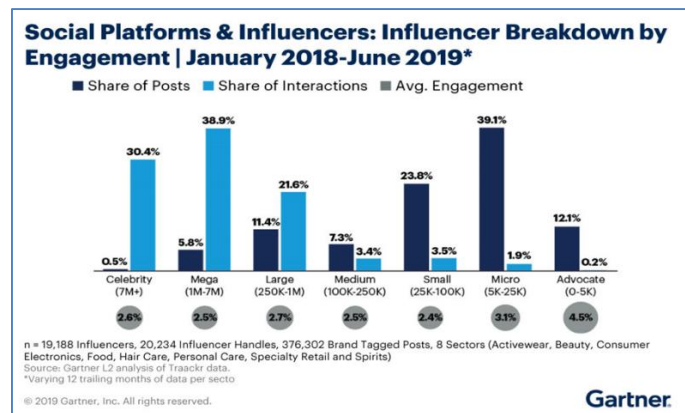
1.2.2.Influencer

Figure 2: Social Platforms & Influencers (Source: Gartner L2 analysis of Traackr data , https://www.gartner.com/en/marketing/insights/daily-insights/the-influencer-age-small-is-beautiful)

It is a term for a person or a group of people having a ability to affect or change the purchasing decision of its audience through fame, authority, power, expertise, knowledge or relationship with his/her/their audiences on social media platforms. An Influencer is also known to own a distinct niche and influence the audience following that particular niche by proactively engaging with them and sharing knowledge content with them (Kusa, 2020).

1.3 Introduction to Sentiment Analysis

Sentiment Analysis is one of the most powerful field to perform analytics on text or human's natural languages. Sentiment Analysis is a process of picking a group of text (sentences or paragraphs) and analysing the text in order to classify and categorize human emotions into positive, negative or neutral using text analysis (Qaiser, 2020). Importance of using this method is to get real insights from real humans which gets hidden midst of irrelevant KPIs a brand targets. As a result, brand may lose important information which might be critical and on a priority to address.

Sentiment Analysis is branch of Data Science in field of Natural Language Processing used to do qualitative analysis of language used by humans and providing insights about human emotions and feelings about a topic of interest. Microblogging websites such as Facebook and Twitter brought this platform inside everyone's pockets and made the platform accessible and available easily (Hajiali, 2020).

This method is critically important in order to know the customer's point of view, their feedback and sentiments (emotions) towards a brand, company, products services. It gives a unbiased and true picture of current situation. Brands can use this analysis to improve customer experiences and tailor their products and services according to their target audience (Alrumaih, 2020).

Sentiment Analysis can measure some of the important characteristics of human sentiments such as:

- Feelings: Angry, Happy or Sad: Feelings are defined as response to feelings generated by some external stimuli. Thus, feelings are outcome of an action which affects a human in conscious ways. For example, a customer feels happy getting an extra discount on a product. The action "discount" triggered the "happy" feelings in the customer.

- Emotions: Positive, Negative or Neutral: These neurophysiological changes in the form of biological states associated with thoughts, behavioural responses or degree of pleasure. For example, a customer may have positive emotion towards a brand due endorsement by a famous celebrity.

- Intentions: Interested or Not Interested: Intents are actionable outcomes of human beings as result in response to activities performed by an external entity. For example, a customer may be interested to buy a product in response to brands value proposition shown to the customer in a right way.

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1.4 Types of Sentiment Analysis

Sentiments refer to various feelings, emotions, opinions and intent which are subjective in nature. Different types of sentiment analyses gives out different outcomes which in turn can be turned into different strategies to identify the sentiments hidden in particular text (Qazi, 2017). Tuning in right sentiment analysis may impact a brand's digital reputation, identification of new opportunities, gap analysis and successfully market a product or a service

1.4.1 Fine-grained Sentiment Analysis

This type of Sentiment Analysis is performed on the feedback received from customer. The polarity of the emotion is extended in various categories as per requirement measured on a likert scale

1.4.2 Emotion Detection Sentiment Analysis

This method is purely based on machine learning algorithms. Emotion Detection performed with the help of Lexicons. Lexicons are the list of words which as categorized as positive or negative. When a brand analyse any comment or review from their customers, they can segregate the customer according to various issues and ensure tailoring their product and services according to issues.

For example: (Your product is very bad and I am facing issues)

The above example shows a negative emotion faced by a customer.

1.4.3 Aspect based Sentiment Analysis

Aspect based Sentiment Analysis is more product centric. It is an essential type of Sentiment Analysis used for product development. Here, "Aspect" means attributes and features of any product.

When a brand analyses the social media platforms and crawl reviews of their customers, brands can know which aspects of their products are creating positive or negative emotions. This might help to improve their products and keep the important aspect of their product intact.

For example: "The screen size of the laptop is too wide"

The above examples shows that a customer is facing problems due to screen size and the respective brand can work on their product for improvement.

1.4.4   Intent Analysis

As the name suggests, Intent Analysis means predicting the intent of the consumer by analysing his/her conversation. A brand can predict the buying stage of the consumer and advertise accordingly. This helps a brand to send right message to right consumer at the right time for the right reason. Sentiment helps qualifying leads and helps time, effort and money by marketing in a smart way.

2.   Sentiment Analysis Process

It is clear than sentiment Analysis is specifically a text classification algorithm used to discover opinions and emotions. Thus, Sentiment Analysis can be helpful to have more information at a company's disposal highlighting key information about the topic of interest (Lewis, 2020)

Before understanding the working of Sentiment Analysis, let's understand the actual meaning of "Opinion" or "Sentiment". Opinions are the result of subjective views and experiences of an individual towards a product, human or anything in this world. Sentiments are partially based out of subjective facts and partially rooted and rules by human emotions and feelings. Opinions are one of the dimensions in data which helps in signifying "Point of View" of an human towards a certain topic and highlighting opinions towards that topic (Wei Wei, 2020).

- Extract opinions and sentiments from online platforms such as reviews, comments and customer feedbacks.
- Accurately determining the polarity of the opinion and sentiments.
- Getting more information about the subject that is being judged or talked about.
- Define and identify the buyer personas and opinion holder.

Sentiment Analysis can be carried out in 3 ways:

- Words or Sub-sentences
- Sentences
- Paragraphs
- Entire Document

2.1.Opinions in Sentiment Analysis

Measuring opinions and emotion can be difficult and tricky at the same time. Opinions are subjective and may vary from person to person and topic to topic(Papachristopoulos and Tsakonas 2020). Discussing about politics can be important and at the same time discussing about selecting a restaurant might not hold so much importance. Also, political view from an expert is important compared to a student who might not have right facts in front of him.

We divide opinions into 3 basic categories:

2.1.1.Direct Opinion

As the name suggests, these opinions are directly stated. For example, "The speakers of the phones are too loud". This means, opinion is directly stated and there is clarity between opinion and subjectivity.

2.1.2.Comparison Opinion

When 2 objects, products or services are being compared directly on some particular parameter comes under this category. For example, Colour of X product is much good than Y". This states that the product X's colour is differentiating and essential factor.

2.1.3.Implicit Opinion

These kind of opinions are not clearly stated and hence they might be tricky. Sometimes thee category also contain sarcasm, phrases and idioms should also be considered and interpreted right. For example: The engine started throttling within two days. Here there is no clear mention of engine problem and hence it should be correctly processed.

3.   . Literature Review

3.1.Influencer Marketing

With the advent of technology and digital transformation, the Internet has evolved from being an information exchange source from limited sources to an open platform where everyone on this planet can access and create user-generated content. Some user generated content gave rise to Influencers who assist certain marketing activities by promoting a product or services and influencing its audience (viewers) to buy/use the product or services (Duncan Brown, 2008). Influencer Marketing is flourishing and gearing up by giving out effective results and more marketing managers are opting Influencer Marketing as an alternative to reach a wider audience on social media with a very short span of time (Evans, 2017). However, it is important for managers to select right influencers for their products and services to broadcast a right image in the minds of the audience.

3.2Characteristics of successful Influencer

A successful and impactful Influencer marketing comes with certain characteristics such as authenticity, expertise, credibility, connectivity and enthusiasm (Eytan Bakshy, 2011).
When we talk about authenticity, it means a reliable and unbiased sources of information which are based on some facts and supporting findings. Authenticity is crucial for any Influencer and without authenticity, the effect of Influencer Marketing can be negligible.
Expertise is another important and must-have factor for an Influencer. Majority of audience follow an influencer due to his/her expertise in a specific niche. One of the major challenges of Influencers are their "credibility". It is tough to identify the credibility of Influencer as he/she may misguide their audience and break their trust. If an Influencer is credible, their effectiveness multiplies in

multiple folds. Influencers need to be connected and available on every platform. Thus, connectivity keep their audience stable and lessen the attrition rate. Finally enthusiasm is important to bring new information and resonate with audience in newer ways.

3.3.Evaluation of Influencer Marketing using Sentiment Analysis

An Influencers sharing of posts, network density and size, and membership duration were used to predict his/her ability to produce referrals for the brand. However, there is not much study done on evaluation of an Influencer and effects of an influencer's promotion of brand image and position in its audiences mind. Nowadays consumers don't trust a influencer due to a fact they learned about paid marketing a influencers is involved in and hence it may harm the brand image associated with the influencer (Moore, 2018). Certain KPIs are used to evaluate the effectiveness of Influencer marketing campaign such as number of views on posts, sales, revenue, coupon code used etc. Certain machine learning algorithms are also used to measure the Influencers (Arora, 2019).

Above metrics may yield partial results, a branch of Natural Language Processing called sentiment analysis is used to measure intangible assets like audience's emotions, sentiments, sarcasm and reviews etc. (Alatabi, 2020) (Ghiassi, 2013) (Kharde, 2016) (Nakov, 2019) (Nazir, 2019) (Paltoglou, 2012) (Papachristopoulos, 2020). (Gao, 2019) also suggested that certain models and algorithm to classify influencers into three different groups called opinion leaders, trolls and controversial figured which may affect the emotions and opinion of audiences in various direction and in various degrees.

4. Influencer Marketing Process

4.1Stage 1: Strategy

Whenever a marketing campaign is launched, its first stage is always to set goals and strategies to achieve from a campaign. To harness the power of Influencer Marketing. It is very important to plan and set objectives in order to get successful results (Biaudet, 2017).

- Following can be some of the objectives of Influencer Marketing Campaign:
- Brand Awareness (Raising knowledge about a brand)
- Marketing Pull (Raising the popularity)
- Driving sales or convincing audience to take some action (website visit or download application)

However, multiple marketing objectives can be achieved based on the relation a influencer have with its followers or the content quality through which the campaign will be delivered.

Hence, defining the objective and deciding major KPI's are important for an successful influencer marketing campaign.

4.3.Stage 2: Identifying Influencer

As Influencer Marketing as seen a massive growth in recent years, there are a lot of influencers on each social media platform. Hence, one of the major task is to identify a right Influencer for your brand, analyse the influencer and decide how valuable a specific influencer is for your brand. As we earlier said, a wrong influencer can hurt your brand ten times than it can promote it.

4.4.Stage 3: Analyse Influencers

Before diving into a contract with an Influencer, its very very important to analyse and study their profiles in depth. Sometimes their follower count and their content might look great and promising, but it doesn't really guarantee of success and certain KPI's can be manipulated for misguiding.

That's when Sentiment Analysis comes into picture. The sentiment score (result of sentiment analysis) cannot be manipulated because it is based upon real time reviews and comments of the audience or any interaction an audience has with its influencer. Hence, sentiment analysis can be used to analyse an Influencer in depth securing authentic results.

4.5.Stage 4: Campaign outcomes and KPI's

Once the campaign is over, it is advisable and important to evaluate the major KPI's supporting a brands marketing objectives. This gives you an clear idea about performance of the campaign and effectiveness of the influencer.

Some of the KPS's are as follows:

- Engagement (Likes, Comment Shares)
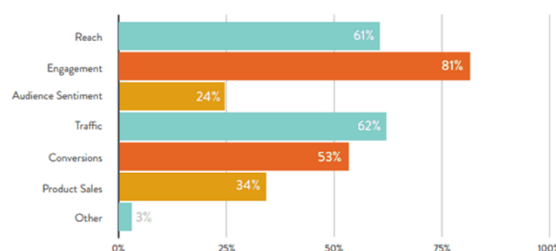- Value of Earned Media
- Follower growth
- Follower Vs. Engagement ratio
- Sales
- Traffic

Figure 3: 6 Important KPIs of Influencer Marketing That You Should Know (Updated April 2020) (Source: Shane Barker, https://shanebarker.com/blog/important-kpis-of-influencer-marketing/)

5. Challenges in Influencer Marketing

The rapid growth of Influencer Marketing due to inevitable power of social platforms and charm of content which adds value for the audience in some or the other way. Many brands have experienced the impressive results of Influencer Marketing. Majority of customers are more likely to buy a product or a service if recommended by an well-known Influencer (Markic, 2016). A study done by Influencer Marketing Hub reveals that companies earn 6.50$ on every single dollar spent on Influencer Marketing. This clearly shows the power of Influencer marketing. However, Influencer Marketing do not come easy. It brings along a lot of challenges so let's discuss some of the major challenges below (Conway, 2019).
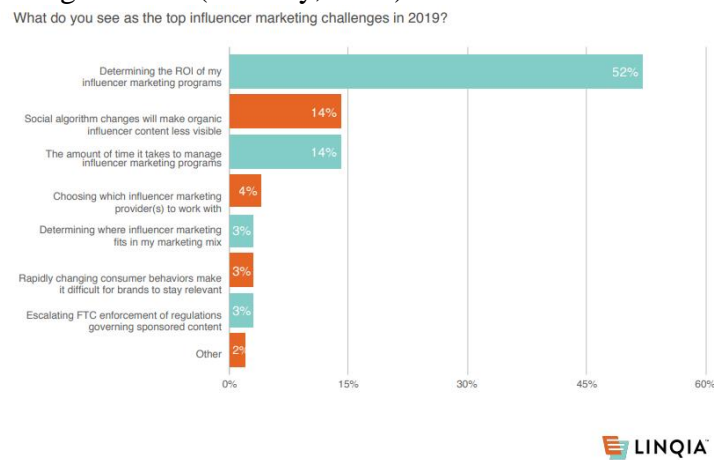
What do you see as the top influencer marketing challenges in 2019?

Challenge	Percentage
Determining the ROI of my influencer marketing programs	52%
Social algorithm changes will make organic influencer content less visible	14%
The amount of time it takes to manage influencer marketing programs	14%
Choosing which influencer marketing provider(s) to work with	4%
Determining where influencer marketing fits in my marketing mix	3%
Rapidly changing consumer behaviors make it difficult for brands to stay relevant	3%
Escalating FTC enforcement of regulations governing sponsored content	3%
Other	2%

LINQIA

Figure 4: The Top Influencer Marketing Challenges in 2019 (Source: Digital Marketing Community, https://www.digitalmarketingcommunity.com/indicators/the-top-influencer-marketing-challenges-in-2019/)

5.1. Fake Followers or Bots

As social media technology is rapidly growing, there are some cons which come along. There has been a rise of small computer scripts called "bots" which adds spam to any social media platform. Bots are programmatically designed computer scripts to stimulate activity similar to real humans, which can be misleading.

5.2. Measure ROI

Measuring a marketing campaign holds a lot of importance for future tweaks and improvements needed. It gives managers the base to take actionable decisions and review the performance of the campaigns. Certain objectives such as website traffic, likes, shares , mentions , comments etc. can be easily measured. But, if a brand having objectives such as improving brand image, these metrics cannot measure such intangible goals and objectives.

5.3. Right Influencer Identification

Collaborating with the right influencer on the right platform at the right time with right product in front of the right audience is the key strategy to be

successful in Influencer Marketing. Finding a right influencer for your brand is challenging. Collaborating with a wrong influencer may lose a brands reputation and money. Reviewing content quality, follower numbers, followers' growth, share and like ratio, target audience analysis, daily growth rates are important. But these numbers cannot give a real picture as some of metrics can be controlled and might lead to misinterpretation.

6.   Sentiment Analysis Challenges

6.1.Context

When analysing any text, machines cannot understand accurately the context of certain words or adjective used in the sentence. This may give less accurate results. For example, "Your car has a killer colour". This sentence an example of natural language used by a human. The word "killer" is in the positive context here, but the system may show it as negative.

6.2.Subjectivity and Tone

Identifying tone and degree of tone is important to get fine and tuned output. Tone can be easily identifies using various verbiage and words. The real challenge is to identify the message is objective or subjective in nature. Humans express their opinions in implicit way and there are various ways to formulate the message. This forms one of the major challenge in Sentiment Analysis.

6.3.Sarcasm and Irony

The most difficult part of Sentiment Analysis to deal with is sarcasm and Irony. These kind of sentences may misguide to show a negative message into overwhelmed positive message and vice versa.

7.   Exploring Sentiment Analysis to Evaluate Influencer Marketing

Sentiment Analysis can go extra mile and provide a lot more than emotions and sentiment. Sentiment Analysis can be used to analyse and evaluate Influencer Marketing and Influencers which are one of the trending and important marketing channels in today's digital space.

Using Sentiment Analysis can be financially beneficial and can save your brand from a big hit. Using Sentiment Analysis a brand can pay attention to the latest trends of their respective industry and also keep an eye on probable influencers and evaluate them. A brand can evaluate a influencer and the emotion (positive or negative) they drive and then choose a relevant influencer and may avoid a potential problem which may harm the brand image (Burton, 2019).

7.1.Identify right influencers for a Brand using Sentiment Analysis

It is very likely that a brand may work with an influencer who isn't really what the influencer is trying to show. This may backfire and hit the brand in negative ways. Earlier we have mentioned some challenges in Influencer Marketing. For

example, an influencer may use "bots" and increase virtual followers on their social media accounts and might misguide brands to work with them (Vodák, 2019).

7.2.Topic Tracker

However, Sentiment Analysis can be helpful uncovering these frauds and help brands to take informed decisions based on data. One way it to set a Sentiment Analysis tracker on the topic of the interest. For example, if a brand is a "Organic Food" brand, then they can keep a tracker on word such as "organic foods" or "organic farming". After analysing results over time, brands can see the lists of influencers who contributed to this topic and received positive response.

7.3.Profile Tracker

Second way is to set a Sentiment Analysis tracker on potential Influencer's social media account. With help of web scraping and Sentiment Analysis on the scrapped data, a brand can to know some of the important indicators such as:

- Like and Share ratio
- Post Life
- Sentiments of audience
- What fan's say about them
- Any negative or controversial aspect related to influencer etc.

Such indicators further help brands to carefully select and influencer and making sure the campaign isn't a waste.

7.4,Evaluate Influencer Marketing campaign

Setting up and deploying a campaign isn't the last step of Influencer Marketing. There should be a KPI report after the campaign ends. These KPI's gives a real picture of the campaign success. The most challenging part of Sentiment Analysis is measuring the KPI. As mentioned earlier, KPI can be as follows:

- Number of Likes
- Number of Comments
- Number of Shares
- Number of Views
- Number of Clicks
- Sales
- Increase in followers

These KPI's are important but cannot give the whole picture. For example, audience must be liking the post due to influencer's looks and physical features. Also, there might be virtual bots liking and sharing the post. This is

where Sentiment Analysis comes in and act as a mirror. Using Sentiment Analysis a brand can see the following:

- What the audience is actually talking about?
- Reviews and feedback of company
- Sentiment towards brand and its product
- Reasons for liking/disliking a product

Such KPI's can only be possible with sentiment analysis which gives a real picture of the campaign success and details. This helps a brand to improve their products and services in extension with brand awareness. It also shed light on the decision of working with right influencer (Martínez-López, 2020).

7.5. Measuring KPIs using Sentiment Analysis

The above KPI's will act as insights for your next campaign and scope of improvement.However these KPI's are quantitative and may not give clear insights. For example, if an influencer's audience likes his/her appearance or some other attribute, they might like the campaign post, not because of brand, but an influencer itself. This means more "likes" cannot ensure increased likability for a product.

This is also where sentiment analysis plays a major role. Sentiment Analysis feeds in with comments and reviews of the audience, analyses and generate a sentiment score where a real picture of campaign effectiveness can be measure. Sentiment Analysis converts intangible assets like emotions, feelings and sentiments into quantitative measure called "sentiment score".This score can draw conclusion about effectiveness of the campaign and success of the objectives decided prior to the campaign.

8. Benefits of Sentiment Analysis used in association with Influencer Marketing

8.1. Influencer Assessment

Sentiment Analysis can be key tool for assessing an Influencer and help a brand to identify a right influencer aligning with their marketing goals. It can save a brand working with wrong influencer or get into fraudulent deals. This can also save a lot of efforts and money for a company, and more importantly it can save brand image which takes a long time to grow.

8.2. Measuring effectiveness of campaign

Marketing campaigns are successful only when they are measured. Sentiment Analysis can help measuring an Influencer Marketing campaign and evaluate the effectiveness of the campaign. The brand can take informed decision for further campaigns and justify ROI spend on marketing campaigns (Greff, 2018).

8.3.Measuring the right KPI

Sentiment Analysis can help brands know the target audience's sentiment towards their brand, product or service. This may help them to improve their product and services and drastically bring a positive change amongst the user in short span of time as the feedback is coming directly from end user.

8.4,Identify strengths and weaknesses

Sentiment Analysis also plays a key role identifying the key aspects of a product, service or a brand. This helps brand to identify their strengths and weakness and accordingly work towards it and make the better.

9.   Conclusion

Influencer marketing has seen a tremendous growth when it comes to selecting a channel for strategizing marketing for any brand. Influencer Marketing can boost's a brand's image, its sales or increase its credibility within a short span of time. However, to experience these positive effects on brand's successful marketing strategy, it's very important to choose a right influencer on a right platform with a right niche so that it brings a positive results on marketing efforts. If the selection of Influencer goes wrong, a brand may face a huge loss financially and in terms of brand image. Hence, Sentiment Analysis can be used for selecting a right Influencer and help in taking a right decision to pave way for right Influencer Marketing strategy. Another important aspect of Influencer Marketing is evaluating a campaign for further decisions. Sentiment Analysis also helps brands analysing the campaign and gives a real picture of the campaign which can be biased using other analytical tools. Hence, using Sentiment Analysis in association with Influencer Marketing can multiply the effectiveness of Influencer Marketing and evaluate Influencer Marketing campaigns.

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