Big data impact of Social media marketing on consumer buying behaviour

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Abstract: In the digitized living of the modern era more than 60% of the world population is using social media sites in day to day life. Social media marketing plays a tremendous role in the field of digital marketing where companies can spread their product information to a wide range of consumers. Studies show that the marketing strategies are based on the demographic target audience so social media gives the chance for the organization to establish a relationship between the consumer to learn about their buying behaviour. Social media has an impression on the consumer decision-making process so the consumer can finish the check-out process and avoid shopping cart abandonment. Social media marketers can meritoriously use big data to judge forthcoming buying patterns and trends. There are numerous social media networking sites for learning and monitoring consumer buying behaviour and social trends.

Keywords: big data, social media marketing, social media, consumer buying behaviour.

I. INTRODUCTION

Digital marketing is the marketing process of building responsiveness and promoting a brand or product online using all accessible digital channels. Essentially, digital marketing attributes to several online marketing efforts or assets. Email marketing, pay-per-click advertising, social media marketing, and even blogging are some of the examples of digital marketing. Social media marketing is a method by using social media sites to reach the attention of people. It mainly concentrates on developing content that will attract the attention of the readers in social media and make them share the content on their social networking site. Any data that is shared in the social networks, which included short messages, information about a product or service, brand, or a company is termed as electronic word of mouth. When the information about a product or service, brand or a company is shared in a social media by a user, it is re-shared by many users in other social networks and when the information is shared by a trustworthy source, it becomes an appositive campaign for the product than the advertising done through paid sources. This indications the supremacy of social media marketing [1]. The majority of search engines search in terms of social media signals are the source’s authoritativeness and trust. Authoritativenss is different from Authorship. Authorship is a function released by Google in 2011, which authorise authors and publishers to add varied parts, including photos, ratings, and more details to search engine results pages. Trust is fundamental to social indicators being claim by the search engines. Those people, whose social media profiles have a reliance score, are entitled as influencers. Communication with customers plays a vital role and influence the psychological feature of the customer. It also has an impact on customer's attitude towards the product. Social media networking sites provide an environment that enables the consumers to communicate on the web which will have an important impact on the consumer socialization concept [1].

Big data plays an important role in social media marketing. Every day’s info shared digitally will increase considerable and it’s irreplaceable to each organization and business for their digital marketing strategies. With the help of big data, marketers can analyse every action of the consumer. It offers improved marketing insights and it helps marketers to make more accurate and progressive marketing strategies. There are numbers of social media platform available in the world which helps the institutions to monitor their customer behaviour pattern during the purchase in e-commerce. With the support of social intellect and monitoring tools, it’s possible to access and analyse these insights. Social media is an exclusive source of quality information as consumers tend to express themselves more freely.

II. SOCIAL MEDIA

Social media refers to websites and applications that are designed to allow people to communicate with people around the world in real-time, efficiently, and quickly.

1. Social media are collaborative Web 2.0 Internet-based applications.
2. User-generated content such as text or comments, digital photos or videos, and data generated over online communications.

3. Users build service-specific profiles and identities for the website or app that are designed and maintained by the social media organization.

4. Social media make straightforward that the development of online social networks by connecting a user's profile with those of other individuals or groups. Social media is an integral part of the digital marketing strategy usually see measurable results. Nonetheless the key to successful social media is to not treat it as an extra adjunct but to treat it with the same respect, maintenance, and consideration you do all of your marketing efforts. Figure 1 represents various social media options.

A. Facebook

Facebook was founded in 2004 by Mark Zuckerberg and was initially available only for the students of Harvard University. Later Facebook expanded for other university students and in 2006 allowed registration for anyone. People use Facebook to stay connected with their friends and family, share their content and thoughts, and stay up to date on what is happening in the world. The amount of active users has grown exponentially and today Facebook is one of the most popular social networking sites in the world. Facebook marketing can be divided into 3 elements: Facebook pages are companies owned media and Facebook ads serve as paid media. As a social network, Facebook users also share and create content themselves, which serves as earned media for companies. In 2012 Facebook acquired Instagram and they continue under separate brands [2].

B. Twitter

Twitter was founded in March 2006 by Jack Dorsey and launched that same year in July. Twitter has to get connected to the latest information on what they find interesting. User has to find the public stream that interests them and follow in the conversations. Through Twitter businesses now share their information or news faster to a large audience online following the company, and from a strategic standpoint, this has helped companies that use Twitter to position their brands and also collect business insight through feedback to enhance their market intellect to accurately target customers with relevant facilities and products or heighten business relationships [3].

C. Blogs

Blogs allow merchandise or company to provide longer descriptions of products or services. The protracted characterization can include reasoning and uses. It can include testimonials and can link to and from many social media networks and blog pages. Blogs can be updated regularly and are promotional techniques for keeping customers. Other marketing uses are acquiring followers and subscribers and direct them to your social network pages [4].

D. Pinterest

Pinterest was founded in 2009 by Ben Silbermann and launched in 2010. Pinterest allows the users to share, and discover new interests by posting images or videos to their own or other boards and looking at what other users have pinned. Other social media networks like YouTube, LinkedIn, flicker, etc. also play a vital role in marketing.

III. BIG DATA

Big Data is a collection of data that is vast in capacity, however growing exponentially with time. It is a data with so enormous size and complexity that none of traditional data management tools can accumulate it or progress it efficiently. There is a continuous growth in the amount of people interacting with brands on social media platforms. This makes it crucial for you to be data perception to remain competitive and stay relevant in the social media. Seeing the enormous volume of data manufactured by these platforms, it becomes essential that you make custom of big data in your social media marketing campaigns. Big data will permit you to examine the behaviour of buyers and target a precise group of people. By giving you comprehensive perceptions, it will assist you in fine-tuning your social media communications and choosing the right platform to interconnect with the buyers. The more details you acquire about buyers, the better you will be able to target them through your social media marketing campaigns. Big data basically partakes three sources: social data, machine data and transactional data. Table 1 represents the big data sources.

<table>
<thead>
<tr>
<th>s.no</th>
<th>sources</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Social data</td>
<td>Is comprised of a consumer’s online behaviour. Their searches, likes, dislikes and other tractable activities provide insights into consumer sentiment.</td>
</tr>
<tr>
<td>2</td>
<td>Machine data</td>
<td>Is generated by machines, such as automobiles, mobile devices and other connected objects, and it is composed of actual human behaviours.</td>
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<tr>
<td>3</td>
<td>Transactional data</td>
<td>Is generated by online and offline transactions and records.</td>
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Table 1 Big data sources

Big data environment has to have these characteristics commonly called as 4Vs, table 2 represents the 4v’s of big data.

<table>
<thead>
<tr>
<th>S.no</th>
<th>4v’s</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Volume</td>
<td>It refers to a large amount of data (Size of data)</td>
</tr>
<tr>
<td>2</td>
<td>Velocity</td>
<td>It refers to the speed at which the data is generated, stored, analysed and utilized</td>
</tr>
<tr>
<td>3</td>
<td>Variety</td>
<td>It refers to the different sources of data as well as different types of data that is structured, semi-structured and unstructured data.</td>
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Big data source that captures real-world user behaviour would provide brands with the visibility they need into consumer behaviour. That data would spur on product development and provide marketing departments with a more precise marketing strategy. Table 3 represents the impacts of big data on social media marketing.

<table>
<thead>
<tr>
<th>S. No</th>
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<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>personalization</td>
<td>Big data allows the brand to approach their customer in a more personalized way based on their choices and like. With the help of big data it will became easier for brands to display only those advertisements which interest consumers. It will improve the relationship between the users and turn them into a potential client.</td>
</tr>
<tr>
<td>2</td>
<td>Decision making</td>
<td>Big data allows marketers to identify social media trends and gain insights, which can be used to make engagement decisions like which users to communicate with, which group of users should receive marketing emails, etc. It also makes it easier to keep track of the demographics to decide which social media platform to target.</td>
</tr>
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<td>3</td>
<td>Effectiveness of campaign</td>
<td>Big data is useful in tracking the performance of social media campaigns and finding out the gradual changes in ROI. It also allows marketers to test their campaigns before launching it, analyse the results, make changes in the campaign as required, and retest it. Predictive analytical tools enable businesses to take decision regarding when to pause the campaign to avoid losses.</td>
</tr>
<tr>
<td>4</td>
<td>Product insight</td>
<td>Social media marketers can effectively use big data to judge future buying patterns and trends. Big data increases the certainty regarding what consumer’s want, when they want it, and how they want it. This gives businesses insights into what their new products should be like.</td>
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Table 2 4’s of big data

Table 3 The impacts of big data on social media marketing.

### IV. CONSUMER BUYING BEHAVIOUR

Consumers have to make numerous decisions every day to day life thereby have to cope with constantly increasing information. Due to this they develop certain habits and heuristics which are shortcuts and rules of thumbs. Which mainly leads to the shopping cart trafficking. The consumer decision-making process comprises various steps that attempt to capture the critical aspects of an individual's consumption behaviour. Table 4 represents the interpreted consumer behaviour into five stages.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>STAGES</th>
<th>DESCRIPTION</th>
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<tr>
<td>1</td>
<td>Problem recognition</td>
<td>Consumer realizes the need of the product.</td>
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<td>2</td>
<td>Information search</td>
<td>Consumer begins searching for the product in different ecommerce portals.</td>
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<tr>
<td>3</td>
<td>evaluation</td>
<td>Consumer evaluates the product based on their criteria.</td>
</tr>
<tr>
<td>4</td>
<td>Purchase decision</td>
<td>Consumer concludes what’s best for them based on the evaluation criteria and decides when where and how to purchase the product.</td>
</tr>
<tr>
<td>5</td>
<td>Post purchase evaluation</td>
<td>Consumer decides that the product meets their needs or not.</td>
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Table 4 The interpreted consumer behaviour into five stages.

There is numerous reason why a potential buyer starts a check out process for a product but does not go through with the transaction this leads to shopping cart abandonment. To check why the cart is abandoned can be done by looking at the analytics data and identifying drop-off points, conducting user research and survey, or comparing your checkout flow with other potential sellers. With the help of Google analytics the seller can keep track of the abandoning cart statistics. To reduce the abandonment rate there is numerous way the most important one is social media marketing which can influence on consumer buying behaviour.

A humongous number of conversations occur on the internet and a large part of this information is publicly available for access with the help of social intelligence and monitoring tools it’s possible to access and analyse these insights which lead to monitoring consumer behaviour. By Monitoring and analysing consumer behaviour we can find the anticipating trends available so the social media marketing strategies can be changed accordingly.

### V. LITERATURE REVIEW

Dr. Vinod S Chadwani. Wrote a book named social media marketing and consumer behaviour. The purpose of the book is to bring forth various aspects of social media marketing. The book is composed systematically of the introduction to the conclusion which is helpful for those who do researches in the area of social media marketing or digital marketing. Gulzar Asma et al., (2018) a study of the impact of social media marketing on consumer behaviour state that the current study is to investigate the potential of social media marketing as an
effective marketing tool that helps them to affect the perception of customers and ultimately influence their purchase decisions. **Rope Jaakonmaki et al., (2017)** their analysis state that the Impact of Content, Context, and Creator user Engagement in Social Media Marketing in their report on a quantitative study that applies machine learning algorithms to extract textual and visual content features from the Instagram post along with creator and context related variables and to statistically model their influence on user engagement. Their findings can lead to marketing and social media professionals in creating engaging content that communicates more effectively with their audiences. **Anthony Miles, D. (2014)** their study shows how social media influences consumer behaviour using a structural equation modelling for measurement. **Madni Ghulam Rasool (2014),** this study analyses the role of social media effectiveness on consumer's behaviour. **S. Balasubramaniyan and Sakkthivel, A. M.,** through a structural equation modelling approach discovers how social network influence over women consumers. **K. Kavitha et al., (2020)** their study mainly discussed the consumer's attitude towards shopping cart abandonment and provide a hypothesis development about the issue.

**VI. CONCLUSION AND FUTURE SCOPE**

Whether you own an individual, a start-up small business, or a large corporation an online presence and an ongoing conversation with the constituents is a baseline requirement. [5]. Most of the marketing strategies are applied to the target audience. Social media is gradually becoming an important marketing tool that offers the company’s a chance to engage with their markets and to learn about customer buying behaviour. However the allegation state that the stream of media is an uncontrollable environment therefore it needed a healthy social media strategy that manages consumer behaviour. Social media always allow the company to engage with the consumer based on contributing in the online conversation which helps to build a customer relationship between them [6]. For further study from company's perspective they can include online polling or blogs about their products which help the company to stay connected to their consumer even after their purchase.

**VII. REFERENCES**

[8] Roope Jaakonmaki (2017)- “The impact of content, context, and creator on user engagement in social media marketing”