

Use of Big-Data Analytics with the Interactive Advertisement for Product/Service Representation towards its Customers

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Abstract: On the one hand, big-data analytics has brought revolution in the predictive modeler by enabling the complex data sets getting structured. On the other hand, the interactive advertisement has changed the complete scenario of the advertising sector by making advertisements content structured in such a way that it is customer-centric. The paper helps to widen the view to explore the growing urge of customization technique in advertising sector with interactive enablers. The paper further examines that how interactive advertisement and big-data has helped to represent product/service from the view of a customer and also improved the product/service performance. In order of study, exhaustive literature reviews resulting in three hypothesis are developed to take on the above-mentioned concerns.

Keywords: Big-data analytics, Interactive advertisement, Customization, Customer-centric.

1. INTRODUCTION

The data is generated exponentially after the two decades of the internet revolution. The data are complex, and therefore it becomes hard to analyze and categorize in the form of data. Datasets whose size is too large and therefore it makes difficult for database software tools to capture, store, manage and analyze. McKinsey Global Institute [Manyika 2011]

Data is so voluminous and complex in nature that traditional data processing application software are not able to generate the actually required information. It extracts value from data and put them to a particular size of data set. The number of methods is evolved through continuous engineering leads to better analytical software which predicts the requirement of data and maintains the data transparency. Managers looking at the outputs of various algorithms available in the market and their decisions are highly dependable on these algorithms.

With the fast changing, users demand companies are continuously searching new modes to communicate with customers. As a new edge Strategy Company focuses on two-way communication which helps in improving their product/services as well as to better understand the customer needs. Interaction with the intention penetrates the idea in a swift manner and gives birth to Interactive communication which means influencing each other. Though, advertising is traditionally conceptualized as one-way communication, but the arrival of the Internet has opened newer avenues for advertising to change its way. It started becoming two way

systems from one-way i.e. interactive leading to change its media vehicle. Li and Leckenby (2000) have catalyst interactive advertising as the "paid and unpaid presentation and promotion of products, services and ideas by an identified sponsor through mediated means involving mutual action between consumers and producers of the product or service".

The basic reason for the need of interactive advertisement is the growing changes in consumer's lifestyle, attitude and preferences especially when they are online as they become demanding in their nature and requires more customized production while doing window-shopping. It is observed that Consumer's purchasing power has increased over a span of time and even the cash liquidity goes high in the market which has evolved with their desires changing with every second and with every new thing that they observe which goes online and/or offline.

The need of advertisement has become to understand the consumer's all activity going on online like what ad they see?, what ad they skip?, what ad they view again?, what ad they would not like to see again? etc. also their mail box, the pages they prefer viewing all this shows consumer interest and preferences which is the basic parameter of understanding consumer response towards advertisement. Literature highlighted that big data plays a great role in advertising research. The first one is by developing fundamental frameworks of advertising with new data sources and refining with existing theories. Second is by improving the delivery of advertisement message by

targeting a customized message to the target customer. The third is by sending messages to focus groups for developing new theories. (Sinanc S. S., 2013)

Normal advertisements are the ones that are advertiser-oriented and they lack in connecting customers with them. Their main aim is to sell the product/ service and generate profits. Whereas Interactive advertisements are the ones that are consumer-oriented and they try to link the customers from their ad towards their product/ service. The main aim is not only for sale but also the sustainability of their customer for long-term.

2. LITERATURE REVIEW

Big Data

Literature highlights that data alone is found everywhere but extracting useful information from large data requires analytical techniques. There comes the role of big data as today when we are talking about business, engineering, advertisement, etc. its huge data cannot be analyzed without big data predictable and analytical techniques. (Mauro, 2018). Data is found, everywhere and it becomes essential to extract useful information from large data which requires predictable and analytical techniques. For it, big data analytics are required which are nowadays used in bus, engine, etc. for converting the huge data into useful forms. For industrial upgrade, it has proved itself as a measure of high growth and tool for their competencies. For scientific research activities, it helps in re-examining, scientific thinking and methods. It is a tool also for emerging disciplines and for perceiving and predicting it is proving itself to one of the biggest tools. In ancient times, predictions were done more on institutions rather than using analytical therefore results cannot be considered as authentic. But big data analytics are the reliable and also perceives human insights as the important parameter for the result analysis. (Xiaolong Jin, Benjamin W. Waha, 2015)

It was seen that in older times predictions were done but at that time it was more based on intuitions, and therefore these were somewhere or other considered to be biased and not so clear indicator of future possibilities. But, Big data decisions are reliable as on one-hand as it is based on evidence rather than intuition and on the other-hand it also perceives human insights as an important parameter for analysis of data which helps to give a reliable and authentic result (Brynjolfsson, 2012). The growing importance of big data is not hidden anymore. Big data has brought revolution in every field it may be business, public administration and so on. (C.L. Philip Chen, 2014) Information, technology, methods, and impact are considered essential characteristics of big data. (Grimaldi, 2016). Information is the main characteristic of big data as if there is no information there is no need for big data. Information urges the need for big data. Without the use of technology, the authenticity of big data result is questionable. It is technology only which has triggered the need for big data among all fields. The method if not applied to raw data does not lead to fair results. The impact is the

most important feature of big data. It is the impact only which makes big data what it is today. After the characteristic now let us know its components.

Big data has three V's, and they are variety, velocity and volume where volume implies large data, velocity means with high speed and variety as the huge sources that are available. (Edward C. Malthouse, 2017) Further, the V's were expanded by adding value, veracity, variability and visualization. (Hofacker, 2016) Further volatility was added to the list of V's. Big data consists of many pros but privacy and security is considered as the cons in big data. (Sinanc S. S., 2017).

INTERACTIVE ADVERTISEMENT

Advertising if looked back has gone through lots of era starting from stone-age to print media to radio to television to internet to the in-app advertisement and today being interactive in advertising has become the need of successful advertisement. Advertising has shifted from anonymity to identity and to promote products, brands, services etc. by online and / or offline media there came the need for interactive advertising. It has changed from being advertiser-oriented to consumer-oriented. Today, in advertisement sector consumer is considered as king and their desires are of utmost importance for the sale of any product or service.

Consumers are exposed to different kinds of everyday advertising which has made them develop a sensitive understanding of the advertisement, and that is the reason that advertisements are needed to be an interactive way. (Millissa F.Y. Cheung, 2016). The main emphasis of the advertisement is that speaks the desire, need, desire of the customer. Online advertising has become the base for consumer awareness and needs for their purchase or non-purchase of the product or service. A study was conducted to compare the psychological effectiveness of interactive and non-interactive advertising, and it was concluded that trust of a consumer does not vary whether the advertisement is interactive or non-interactive.

Though it was seen that obviously interactive advertisement makes consumer highly involved personally and after that psychologically effective. (Jinsong Huang, 2015) The lifestyle of a consumer is the main constituent for presenting an effective advertisement in front of them which makes consumer influence towards the advertisement. Interactive advertisement is dependent according to e-lifestyle of consumer and especially the average hours spent online by consumers has become the main determinant of analyzing its online habits, needs, desires, attitudes etc. (Amir Abedini Koshksaray, 2015) The medium through which message gets delivered to consumer is an important tool for analyzing the effectiveness of online advertising (Anusha, 2016). That is why it becomes essential to understand what media vehicle to be used for effective and efficient delivery of the message.

Being clear with the message content and getting up to date knowledge by consumer is important to make interactive advertising and also to retain consumer for lifetime (Bilal Aslam, 2017). The need of building up the trust of consumers

towards in-app advertisement is the most favorable factor to remain consumers for long-term (to, 12 July, 2017).

3. HYPOTHESIS DEVELOPMENT

With the help of Big Data Analysis we are able to get the concrete data from large set of data. Therefore, we are able to target our customers. But as there is no Interactive Advertisement we do not know how to send the message to the customer. The knowledge of even what message to be sent is also ambiguous. Therefore, when there is Big Data Analysis but there is no Interactive Advertisement we are able to know target customer but we do not know the media vehicle through which we should target them. Therefore, only Big Data Analysis without Interactive Advertisement will only lead to knowing the product/service representation target customer.

H1: Big Data Analysis helps us to know target customer for our product or service representation.

As there is no Big Data Analysis used therefore we do not know our target customer from the large data set. The technique of Interactive Advertisement is there so we know that how and when we are also aware of the media content and how we can trigger our customer towards it. But without Big Data Analysis we do not know our target customer. Therefore, Interactive Advertisement without the Big Data Analysis will only lead us towards knowing the way of message delivering, message content, etc. but we are unsuccessful as we don't know our target customer.

H2: Interactive Advertisement helps us to create proper message content, understand media vehicle of delivering our product or service message to customer.

Big Data Analysis when used with Interactive Advertisement helps us to perfectly represent our product or service towards our customer. As we know are target customer on the one hand and on the other hand we know our advertisement content, we know when, where and how we shall appeal our customer.

H3: Big Data Analysis with Interactive Advertisement helps to represent product or service perfectly towards customers.

4. CONCLUSION

Big data and marketing analytic will help us to know everything about its customers like personality buying habits, income level etc. and we can apply a predictive analytics that will allow us to customize his taste and preferences. The paper tries to show that how big data is used with interactive advertisement for this three hypothesis were taken which on one hand shows big data analytics alone can target customer and on the other hand interactive advertisement know the way of an appealing customer. At last, the big data analytics when used with interactive advertisement help us to

customize through proper techniques and therefore product or service is properly represented to the customer.

5. FUTURE SCOPE

The big data with interactive advertisement can be used as a predictive analysis for its customers.

The hypothesis can be further checked through empirical study.

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