

An Investigation to the Role of Big Data in Digital Marketing: A Descriptive Analysis

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ABSTRACT

Major part of the consumers executes their happenings through cardinal channels as an outcome of technical improvement. These progressions also permit the vendors to gather huge volume of data around the clients, stockpile the data and employ it each time and though they need to use. In order to succeed in business over the long term, big data assists firms in identifying the unmet needs and expectations of customers. Contempt the implication of big data analytics for company advertising, there is a slight investigate on this area. This study's penalty area is to highlight the importance of big data in the arena of alphanumeric publicizing in order to enhance to the frame of literature. In stroke with this drive, a inclusive fiction review is undertaken by including big data, it's definition, mechanisms, springs of big data and the role of big data in numerary environment.

Keywords: Big Data, Digital Marketing etc.

INTRODUCTION

Since advent of the internet in the early 1970s and the digital media, the way of business run has drastically altered. More than 4 billion individuals regularly using cyberspace for their livelihood. in the olden days they mostly used internet and digital media for the purpose of communication and having fun but now people frequently use digital platforms to search for products, making purchases and giving feedbacks. Clients spends significant serving of their life in the digital world, and they primarily benefit from it, which produces significant changes in both consumer behavior and business marketing approaches (Chaffey, 2019: 6).

The improvement of alphanumeric technology has bring about in a daily conversion of the marketing approaches used by concerns to achieve a competitive benefit by substantial customer wants and opportunities as well as obeying to current situation. The transformation from the desktop to laptop to smart phones to tablet devises created a huge space in digital advertising and the evolution of different digital marketing techniques. Outstanding to the fact that digital marketing is not a new miracle and new changes continue to occur in this field, business have to think about the things beyond social media and websites. For taking next step from traditional marketing and modern digital marketing to the next level digital marketing the data is very essential.

Data management and big data are at the essential of concern topics, particularly with regard to buyer data, which is currently a decisive marketing quality. In the alphanumeric era, the data collection is boundless and it comes from numerous bases, yet it is typically discrete throughout many material systems. Unifying these data is a obstacle for many companies.

REVIEW OF LITERATURE

Suresh Kumar and Ankur Chhabra 2022 made a study on the digital marketing in the Indian context and analyzed that the accelerating development of technologies, the globalization of the financial system, and a number of other external factors have led to changes in marketing tactics and customer behavior.

Saura, 2021 conducted a study regarding the digital marketing and found that Digital marketing tactics have emerged and are being used by both SMEs and large corporations as a result of the growth of the Cyberspace and the adoption of traditional marketing strategies. For the purpose of

making sales, building brand recognition, or breaking into new markets, these businesses mix data sciences with digital marketing techniques.

Sivarajah et al., 2020 states that According to, tactical processes and marketing-related corporate activities help businesses become more lucrative and sustainably run in a participative web environment. outlines the data science-based performance measurements, analysis techniques, and applications utilized in digital marketing plans and tactics.

Ducange et al., 2018 in their study on a foretaste on big data analytics in the context of marketing approaches analyzed that big data acting a perilous role in helping organizations thrive as they evolution to a alphanumeric reduced. The Internet has produced numerous digital markers on consumers in the past and present that firms can gather and process.

Wamba et al., 2017 analyzed regarding the big data and firm's performance concluded that Today's firms are using big data and investigative gears to create lasting value, advance business recital, and gain a inexpensive advantage as a outcome of the almost complete making digital of corporate activities.

Lee, 2017 studied about the big data, dimensions, evolution, impact and challenges recorded that Businesses have access to a extensive variety of client facts in the big data world. By carefully monitoring customer data, businesses can keep track of changes in customer behavior and discover the causes of such changes. Big data enables organizations to enhance their processes, create better pricing plans, swiftly assess client input, and boost production and efficiency while lowering costs.

Piñeiro-Otero and Martínez-Rolán, 2016 analyzed in their study on understanding digital marketing basics and action that original methods of online marketing have been complete possible by the increase of expertise tools and the dimensions to execute responsibilities that ordinarily call for several policies with a single device. This has ran to the appearance of a new user-centered, more quantifiable, international, and interactive digital marketing paradigm.

Chen et al, 2014 analyzed in their study that Consumers are taking advantage of an increasing number of digital tools thanks to digital transformation. Operators of these tools can register and stock any type of process they carry out. The term "big data" refers to datasets that are obtained by combination data from radars and the Cyberspace of Gears with data generated on websites, social media platforms, and mobile podiums as well as data from the body of processes.

Grishikashvili and Meadows, 2014 examined that the digital world in which consumers live is one of plentiful data and quick technical change. Many sectors have undergone a digital revolution as a result of the simplicity of accessing data from digital sources and the obtainability of cutting-edge technology that can evaluate this data. Numerous multinational corporations are aware of the probable of big data and think that studying big data clusters will assistance them improve their competitiveness and inform their marketing strategy decisions.

MARKETING

Marketing refers generating, interactive, carrying and switching offerings that have values for clienteles, client, associates and culture at large. It includes a variety of initiatives and tactics meant to comprehend consumer demands, create goods or services that fulfill those needs, market those goods or services successfully and guarantee customer pleasure.

DIGITAL MARKETING

Digital Marketing refers to a wide range of tactics and strategies utilized for promoting goods, services, or brand through digital channels. it uses variety of online tools and platforms to engage consumers, connect with target groups, and drive traffic towards marketing objectives. Rather than that of traditional marketing media like print, radio, television digital marketing uses computers mobile, search engines, social media, and other digital channels to reach the consumers where they employ more period.

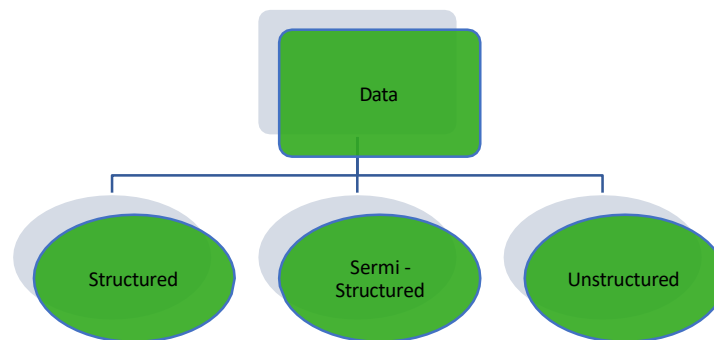
BIG DATA

Big Data is an assembly of information that is huge in capacity and is always intensifying exponentially. Not at all characteristic data running systems can successfully stockpile or development this data because of its greatness and complexity. Big data is a type of data that is enormously large. It is a massive volume data set that have gained wider distribution as a result of a growing amount of consumer activities in digital area. in order to analyze the data like images conversation, pictures, audios, and videos obtained from digital and social media, marketers began to

use progressive algebraic modeling methods in addition to traditional operational data as the volume of data enlarged.

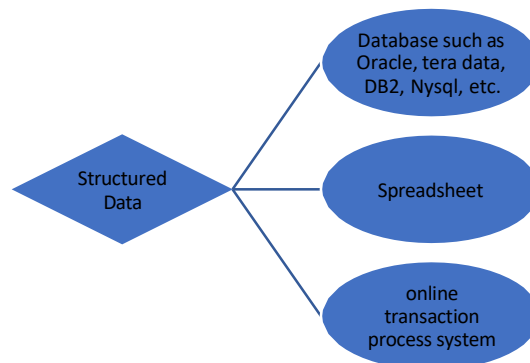


TYPES OF BIG DATA



Structured Data:

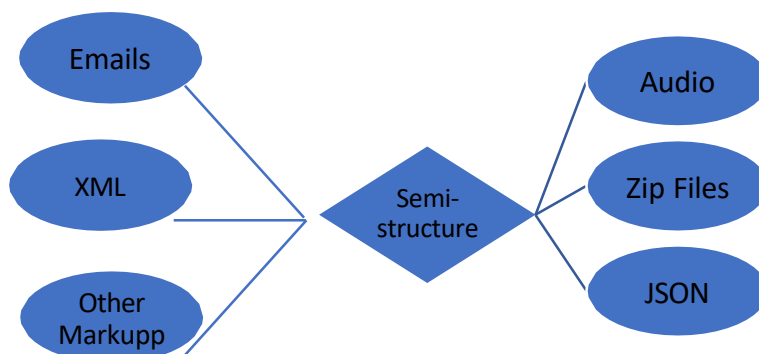
Structured data refers the material that has been planned and structured and is readily available, manageable, intelligible and understandable. the use of planned data is quite easy. any organization can do this simply said, it is the information that stored in a specified field with a record.



Semi-structured Data:

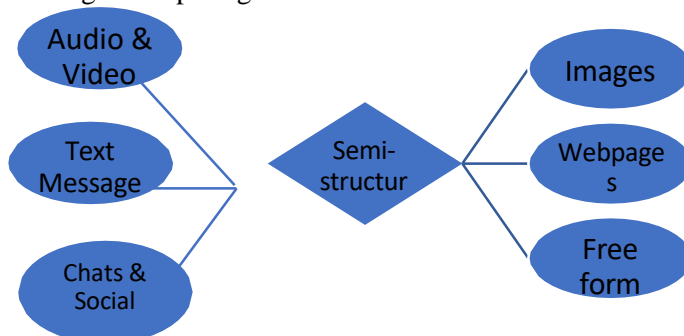
Semi structured data is a sort of data that has some level of organization and can be organized to some extent, but it does not adhere to the format of standard data like database and tables. in terms of organization and flexibility, it falls in the middle of organized and unstructured data.

Semi-structured data is not limited by a fixed schema for handling and loading data. this data is not neatly organized in to rows and columns like that in a spreadsheet, nor is it in a relational structure. However other characteristics like key-value pair, aid in differentiating the various entities from one another.



Unstructured Data:

Unstructured data is any type of data that doesn't follow a specific schema or set of guidelines. its layout is chaotic and ill-thought out. the data like images, videos, text documents, and log files. even if a picture or video may have semi-structured metadata, the fundamental data being processed is shapeless. Unstructured information is also raised to as "ark data" since it cannot be examined without right computing tools.



The technique of using structured data is really straightforward. By collecting and analyzing unstructured data, businesses may increase efficiency, come up with fresh ideas, and gain an advantage over competitors (Eberendu, 2016: 50). Now, business have more chances to track and predict consumer behavior with effect of customers using social media more frequently, shopping online, and using database like customer loyalty. it primes to a big growth in the data foundations of business and lets them to reach sufficiently of material about clients.

ROLE OF BIG DATA IN DIGITAL MARKETING

Big data has substantially changed how organization study and use data to make informed decision and improving the marketing tactics, having major impact on digital marketing field. Here are some important key roles of big data in digital marketing.

1. Customer Insights and Segmentation

Big data analysis helps in collection and analysis of vast amounts of client data such as social media, website interactions, purchase history, feedback record and query registering. as a result, it is easier to segment customers into groups according to their behavior, taste, preferences, demographics and other factors. target marketing tactics are made possible by a greater understanding client.

2. Personalized targeting and Recommendation

Today, personalization is the key strategies for every marketer. the biggest challenge for marketing is to reach customers with the appropriate message at the appropriate time. big data allows digital marketers to design individualized and targeted marketing. it is an another face of one-to-one marketing. it includes product recommendation, target emails, and more targeted ads. this personalization improves consumer engagement and raises the likelihood of conversation.

3. Predictive Analytics for Campaign Optimization

By using machine learning and predictive analytics on big data, digital marketers may predict trend, consumer behavior and campaign performance. this will help the real time campaigning. Marketers may predict trends, consumer behavior, and campaign performance by using machine learning and predictive analytics on big data. This helps with real-time campaign optimization by adjusting channels, content, and timing for maximum performance. This personalization improves consumer engagement and raises competence of the business.

4. Real time Marketing Decision

Big data analytics process data in real-time, enables the organization to make quick decision based on the available data. Marketers may keep tabs on the success of their campaigns, watch social media comments, and act quickly in response to events, trends, or consumer option.

5. Social media analytics

The massive amounts of data collected on social media can be analyzed and used to drive insights with the use of big dat. for more precise marketing campaigns, marketers can track brand mentions, analyze engagement analytics, and pinpoint influencers.

6. Customers journey Analysis

Big data analysis is also used to analyze the road to conversion by examining the consumers journey through numerous touchpoints (websites, social media, emails, etc.). At all these points of customer journey, this insights aid in optimizing the user experience and marketing efforts.

7. Optimizing advertisement expenditure

By finding high-performing marketing channels and techniques, big data analytics enables effective budget allocation for advertisement. this make sure that marketing investment are spent on the most effective platforms and campaigns.

8. Competitor analysis and Market Research

Big data helps in analyzing and monitoring competitor's online activities, pricing strategies and policies, customer reviews and market trends. this knowledge makes it easier to modify marketing plans so as to achieve a competitive edge.

9. Product development and Innovation

By analyzing customer's feedback, query, and preferences through big data can provide valuable information for product development and innovation. Understanding consumers wants aids in producing goods that more effectively satisfy the market demand.

10. Fraud detection and Risk Mitigation

Digital marketing fraud, such as ad fraud and click fraud can be found by using big data analysis. a reliable and effective digital marketing ecosystem is maintained by recognizing and reducing such threats.

11. Measuring campaign's results more accurately

Big data are also exploited for evaluate the accomplishment of separate campaigns and their routine. for upcoming marketing plans, marketers need accurate campaign results.

FUTURE RESEARCH DIRECTION

This learning is imperfect to the detailed theoretical study of the big data only in numerary marketing. Big data is a very significant subject which include wide range of topics, but the study about it is very scarce. there has a big opportunity for future study separately in Structured data and unstructured data. Future research can use quantitative techniques to study customer purchasing designs in relative to their demographic characteristics. the writers can also make discussions with the industrial experts from diverse sector about in what way they getting benefitted from big data and their advertising plans.

CONCLUSION

This study aims to demonstrate the value of big data in the framework of alphanumeric selling. Accordingly, the first half of the study focuses on the review of the previous study. while the additional part examines the idea of alphanumeric marketing. the third session of the articles discusses definition, types, and the character of big data in digital advertising. to sum up the big data analytics has completely changed the landscape of digital marketing. big data enables marketers to improve marketing strategies, better understand consumer behaviors, and increase ROI. however, the focus of this development must be on ethical issues. utilizing the potential of big data safely and effectively is key success of digital marketing in future

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