

Uncovering New Customers and Predicting Consumer Behaviour with the Help of Artificial Intelligence

Gyanendra Vikram Shah

*Research Scholar, Department of Commerce, BBD PG College, Dr. Ram Manohar Lohiya Awadh
University Ayodhya*

Priyanka Yadav

*Research Scholar, Department of Commerce, CMP Degree College,
University of Allahabad*

Abstract

Purpose-

The motive of this study is to highlight, the contribution of artificial intelligence in business world. This technological development are changing consumer behaviour and shopping experience. Many market use the artificial intelligence to extract the information for identify their target customer and optimized algorithms are able to predict consumer behaviour.

METHODOLOGY –

This research based on the secondary data, the methodology use was systematic analysis of the literature, google scholar databases were used to compile academic studies and research papers.

FINDING –

This analysis found that digital marketing has now influenced by artificial intelligence and marketers have personalized their sales and marketing efforts to exceeded their customer expectation.

VALUE/ORIGINALITY –

Using artificial digital marketing intelligence technologies together with human produced data help in mass media advertisement. Artificial intelligence(AI) is changing our daily life, leading companies are already using AI, artificial intelligence driven focus on personalization and it's recommendation system influence the customer. AI is relatively new technology in digital marketing with the potential to improve the impact of consumer behaviour.

KEYWORDS- *Digital marketing, machine learning, customer targeting ,big data.*

I. Introduction

Digital marketing is the marketing of products or services using digital technology. Digital marketing defined by use of various digital tactics and digital channels such as search engines, social media, email and their website to connect with customer, where they spend much of there time on internet. digitalise marketing through mobile technologies, social media platforms, become a part of our global lives and serves as the new way for communication and marketing. With the help of digital technologies a brand can reach consumer with it's products.

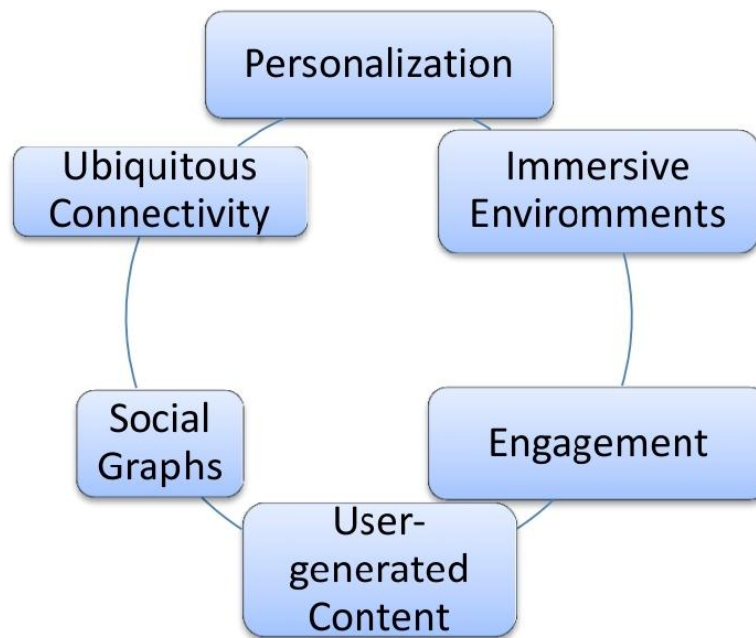
Artificial intelligence is a technology that enable computers or machines as intellectual as humans, able to perform activity is associated toward those performed similar to the human brain. Artificial intelligence is train machine to learn purpose and resolve issues that we deal with daily basis.

Artificial intelligence (AI)is becoming more central to day by day in digital world, the marketing and advertising world is no exception. The business are taking benefit of online communication electronic data, processing analysis information retrieval system tool that help marketing to be more efficient and effective. Developed mobile technologies allow business for faster, more personalized and better services based on marketing activities.

Therefore, target marketing focuses on identifying a realistic approach to fit the products and services for the customers. Artificial intelligence has capabilities to imitate the human brain to provide data by identifying the target audience based on the behavioural. Marketing is growing in popularity with the rise of social media because it provides businesses access to real – time information on the target audience, marketers are able to tap into that information and transform into messages. Marketing now use all kind of customer data to help companies to understand exactly how customer behave. The ability to predict a customer's need and get it right, with the help of artificial intelligence.

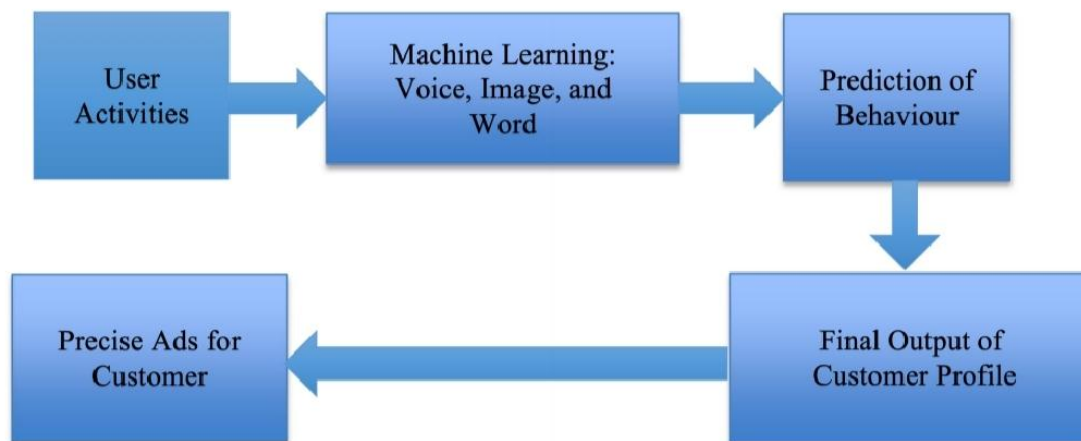
Digital marketing with AI

It is true that marketing transformed together with technological advancement. The internet consumer is capable of analysing a price according to circulating options. Digital revolution implementation of new model of relationship with consumer. Smart phones and social media extract certain impact on dynamic development of digital marketing manners of reaching potential clients. Artificial intelligence include a broad variety of capabilities such as voice, image recognition, machine learning and semantic searching today , there are new application of AI in the consumer and business like Apple's siri to Google assistant. Machine learning algorithm and other computational concept to estimate the action of customer on products also personalization on customized delivery. In order of Increasing reliability, the system helps enhance the customer experience offering customer service rep a clear understanding of the customer's value to better personalized their interaction.



Influence of AI on customer

The interaction of customers across different e-commerce platforms, when we open social media platforms like Facebook has huge nearly 1.6 billion people access , Instagram has 400 million list goes on-google+ has 395 million active users, LinkedIn 100 million. We often see the products the we talked to someone about or see somewhere and wanted to buy or we thinking of something and it appears in front of us, this is all because of artificial intelligence. The machine learning programs ensure improved consumer behaviour, it requires co-ordination on part of the marketing and data management team to establish process for data transparency and relevant to consumer attributes of product and service choice. Online world public relations involves the brand sharing news about their initiative on other digital sites, where it know it's audience will reach on through agencies which will market this information to consumer either as feed article or regular news release.



The Dynamic Relationship Between AI and Digital Marketing

Artificial intelligence (AI) has been a part of digital marketing for a long time. From simple automation tools to complex systems that can process large datasets and extract actionable insights, the evolution of AI over time highlights the increasing significance of AI in enhancing the capabilities of marketers. One of AI's main advantages in digital marketing is its speed and accuracy in analyzing large amounts of data, from user behavior to market trends. AI-driven analytics provide marketers with invaluable insights, enabling data-driven decision-making and improving overall campaign effectiveness.

In this always connected, real-time world, where marketers must deliver continuous, customized, insight-driven interactions with customers on an individual basis, artificial intelligence is crucial to gaining a sustainable competitive advantage. Marketers love to wax lyrical about new and exciting updated technologies. They cite artificial intelligence for image recognition and speech recognition, as well as for preventing data leaks in marketing and helping to target drones at remote communities. Traditional marketing or outbound marketing campaigns are far less effective in winning and retaining customers than they once were.

Artificial intelligence (AI) has revolutionized customer interactions with the use of chatbots. These chatbots provide real-time engagement, answering questions, and assisting users through the buyer's journey. The effectiveness of AI in fostering meaningful connections with the audience is demonstrated by successful implementations of conversational marketing, which has automated and efficient advertising through programmatic advertising. This method optimizes ad placements based on data insights, ensuring that advertisements reach the right audience at the right time. The end result is a more targeted and economical approach to advertising. Today, there are numerous applications of AI in the consumer and business spaces, from Apple's Siri to Google's DeepMind. Artificial intelligence will define how digital marketing will be conducted now and in the future. The following are the ways that has transformed artificial intelligence technology in changing the world of digital marketing.

AI in business:-

The AI technologies are critical in bringing about innovation, providing new business. AI also offer innovative business opportunity. Artificial intelligence for businesses, the practice of AI translates straight into less time spent on routine administrative tasks internally and satisfied customer externally. The business adoption of AI is at very early stage but growing at a significant rate. From workflow management to trend production and firm customer service to dynamic price optimization their commercial availability and socioeconomic impact. Everyday more and more companies rely on artificial intelligence from small start-ups to large companies among which stand out not only the IT giant google, Microsoft, Facebook, IBM . It become obvious that artificial intelligence technology is the real mainstream of our time.

The future of artificial Intelligence (AI) in business involves collaboration between humans and machines. This section explores the concept of augmented intelligence, where AI systems complement human skills. Examples of successful human-AI partnerships in various industries are discussed, emphasizing the potential for enhanced productivity and innovation. Staying competitive in an increasingly AI-driven world. By understanding and leveraging these trends, businesses can unlock new potentials, drive efficiencies, and build a more innovative and successful business. With the rapid evolution of AI, there are new opportunities and challenges in the business landscape.

The Increasing integration of AI into business operations has brought ethical considerations to the fore. This trend centers on responsible AI practices that guarantee equity, responsibility, and openness. This section examines the creation of ethical guidelines and highlights the significance of coordinating AI applications with society values and preventing biased results.

These emerging trends are what define artificial intelligence (AI) in business, creating a dynamic and innovative landscape. Understanding and leveraging these trends can help businesses unlock new potentials, drive efficiencies, and build a sustainable future in the era of artificial intelligence. As organizations navigate the challenges of implementing AI, adopting a strategic approach to embrace these trends will be critical to staying competitive in an increasingly AI-driven world.

II. Review of Literature

AI is being used more and more in operational markets for risk identification, consumer research, and identifying business functions to coordinate with target customers (Campbell et al. 2020). Merendino and colleagues (2018) found that the digitization of information also impacts board decisions. According to Kim et al. (2019), AI's reliance on data quality and quantity, as well as a shortage of AI skills, can slow progress even when AI is moderately implemented. Combining moderately important business and marketing transcription skills with AI capabilities could significantly increase output. Chatbots are computer programs built by AI technology that guide consumers and simplify human interaction in digital marketing platforms and support natural language conversational queries (Chopra 2020)

Although the terms “automation,” “robotics,” and “AI” are sometimes used interchangeably, they have different meanings. For example, while automation and robotics use sensors and manual programming, AI primarily uses algorithms to learn a process and involves logical reasoning, learning, and problem solving, while robotics and AI use computer vision and expert systems to handle general problem solving, learning, and decision making in particular ways (Oswald and Mascarenhas, 2018). A number of previous studies have examined the role that artificial intelligence (AI) can play in improving business efficiency. For example, López and Casillas (2013) investigated the potential of AI-based systems in the marketing context; Cao et al. (2015) emphasized the potential of AI in bringing automated negotiation for e-commerce; Vanneschi et al. (2018) developed a model to predict the probability of default when it comes to payment in e-commerce; Omoteso (2012) emphasized the process of developing AI systems in auditing; additionally, the use of AI to evaluate internal control systems and track the efficacy of audit committees was documented (Lo and Campos, 2018)

Segmentation is the process of dividing the market into specific Parts with similar behaviors (Cahill, 1997); segmentation gives companies a competitive advantage as they can optimize their resources on the target customers. In the past, the availability of quality data was limited and dominated by demographic information from the field reports; segmentation can be rather costly without AI given the need to collect a large customer database from many different areas. Personalization is crucial when it comes to customer targeting, especially given the significance of niche markets.

Remarkably, a number of researchers have made an effort to conduct a thorough review of the literature on the application of artificial intelligence (AI) in business. For instance, Côrte-Real, Ruivo, and Oliveira (2014) propose future research in the then-largely ignored post-adoption stages of business intelligence and analytics (BI&A) implementation through a systematic mapping of the diffusion stages of BI&A implementation, and Moro, Cortez, and Rita (2015) conduct a literature analysis focusing on business intelligence (which employs some AI algorithms for predictive analysis) in banking.

Finally, Duan, Edwards, and Dwivedi (2019) analyze pertinent articles published in International Journal of information Management to identify issues and challenges around AI for decision making in the era of big data, proposing theoretical development and AI implementation. While these efforts present useful knowledge about the advancements in AI and business, Tkáč and Verner (2016) review two decades of research on the application of artificial neural network in business and found most of the examined articles discussing expert systems with applications.

In order to fill this gap, the current paper aims to provide an overview of the extant research on artificial intelligence (AI) in business by thoroughly analyzing the evolution and state-of-the-art research on AI, as well as identifying future trends in order to provide useful directions for future research in the field. Traditionally, research has focused on either specific applications (such as artificial neural networks, BI&A) or domains (such as decision support systems).

In particular, this study employs two methods: (1) a text mining approach akin to that of Loureiro et al. (2018), Guerreiro et al. (2016), Moro et al. (2017), and Cortez et al. (2018) to categorize the existing research into latent topics and assess how such research has changed over time; and (2) a graph mining analysis to map citations of notable studies in the pertinent literature. In addition, the study addresses the primary trends in research and business implementation of AI and suggests a research agenda to address future trends and challenges.

III. Methodology

Statement of problem

Because AI is a rapidly evolving field, it can be difficult to establish clear causal relationships between AI adoption and specific business outcomes, and it can be difficult to quantify the impact of AI on certain qualitative aspects of business, such as organizational culture, employee satisfaction, and customer trust. These challenges make it difficult for research to capture the long-term impact of AI on business

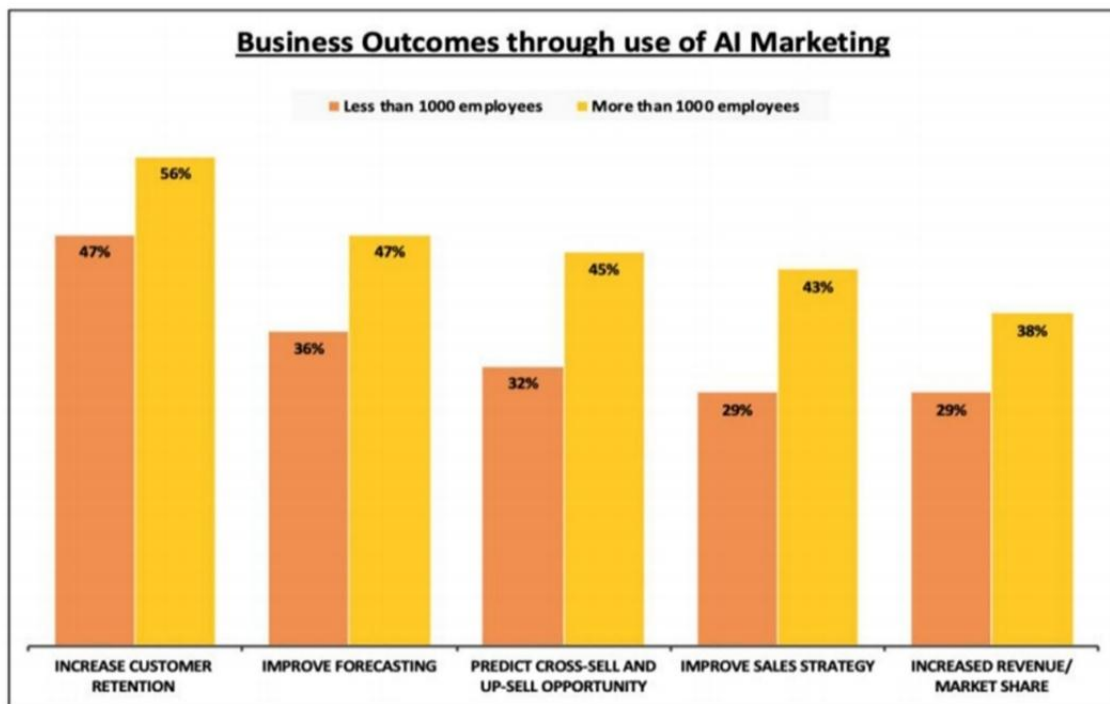
Research objective

*to analysis the impactof AI on business.

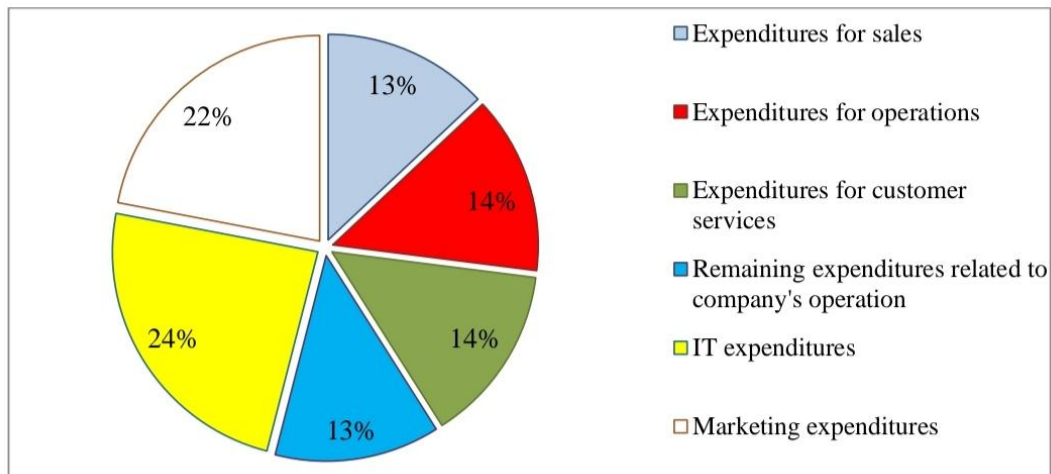
*predicting consumer behaviour with help of Artificial intelligence.

Method

A set of articles discussing artificial Intelligence (AI) was gathered from the Web of Science and Scopus online libraries in order to identify the most relevant literature for this review. Papers that had the terms “artificial intelligence” or “artificial-intelligence” in their title, abstract, and keywords, and that were published in peer-reviewed journals in business-related categories were selected. The statistics show that there are benefits associated with using AI in digital marketing. Customers can provide feedback on their experiences. Customers’ choices are influenced by their interactions and relationships with companies. Customers are research, which means they do their homework before making purchases because they are more educated now



The aforementioned statistics demonstrate the advantages of utilizing artificial intelligence in digital marketing. Consumers can offer feedback based on their experiences. According to GUPTA (2020), “One of the biggest changes in consumer behavior due to digital marketing is that modern consumers expect a more consistent and personalized experience. They are not loyal customers anymore.” Sharma & Thakur (2020) state that “Indian youth is a strong consumer group that drives manufacturers to do what they want.” Consumers are research, which means that they do their homework before making a purchase because they are more educated than ever. All businesses use digital platforms to communicate with their clientele because AI makes it easier



Source: PwC, Digital IQ, czyli jak zbudować porządek w chaosie, 2015, p. 7.

According to the charter, the budget allocated to digitalization is structured as follows: 24% of resources go toward IT-related activities, 22% toward marketing, 13% toward sales, 14% toward customer service, and 13% toward other operations. Of particular importance was the inquiry regarding respondents' perceptions of digital transformation, with 42% considering it to be any activity involving technology and innovations and 53% expressing this view on a global basis

Even though the data are encouraging, there is a problem with the idea of who in the organization is responsible for the digital transformation: up until now, the IT department, or more specifically, the IT Director, handled digital. Nowadays, companies create roles like Chief Digital Officers (CDOs), whose job it is to coordinate the enterprise's digital transformation process.

IV. Finding

The study verified the application of artificial intelligence in multiple marketing and business development domains. AI and big data enable marketers to gain a deeper understanding of their target audience and impact consumer behavior

AI-powered customer experiences shape the customer's dynamic journey to make it convenient and satisfying by adding services performed by computers or machines to quality assessments. AI is changing the future of digital marketing and helps build trust and create personalised experiences for consumers. AI can detect underlying patterns in consumer purchasing behaviour based on products purchased and it can make better-informed product recommendations to consumers, thereby encouraging them to make a final purchase

The study found that although voice recognition is underutilized in commercial solutions, image and text recognition is widely used in marketing. The current AI tools in marketing are centered around assisting the transition to a more digital environment, including CRM, connecting multiple layers, customizing, automating, and augmenting marketing activities, as well as profiling. The tools are integrated with the current marketing activities to increase capabilities and automate tasks and goals

V. Conclusion

Technological advancements are changing consumer behavior because of the abundance of data available in the market. Artificial intelligence is the fastest-growing field that is attracting attention from the business world. Artificial intelligence is changing our daily lives in most domains, such as automobile (Tesla), manufacturing, as well as identifying the new customer in the market. The explosion of digital data created by individual online can nearly all be collected. Companies know or can find your age, race, gender, height, weight, education level, and more

Digital marketing success depends on proper data management and handling, personalized content, target audience, adoptive service, and correct timing. This paper aims to be a baseline for further articles, papers, readings, and researches. Based on the secondary data and assertions in this paper, further academic works supported with quantitative and market research methods would be the next steps for highlighting business impacts on business. Artificial intelligence is constantly becoming an empowering tool for digital marketers and work on tricks to get information from an individual or group of people to make your brand hug

AI marketing is a new marketing playbook that enables businesses to move from marketing automation to marketing personalization more effectively. The impact of AI on digital marketing has accelerated in recent years, allowing marketers to personalize sales and digital marketing efforts beyond expectations. AI is a relatively new technology in digital marketing with the potential to improve the impact on consumer behavior

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