

Leveraging Artificial Intelligence and IoT for Real-time Consumer Behaviour Analysis in Marketing

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Abstract:

The e-commerce sector is changing quickly as more and more people buy products online. AI and big data insights have become effective technologies for handling and evaluating enormous amounts of data. AI's ability to digest vast amounts of data and make accurate predictions has completely changed marketing. AI solutions are used by advertisers to categorize client wants, increase revenue, and forecast customer behaviour. The primary areas of artificial intelligence (AI) that businesses utilize to keep before their rivals include robotics, speech, vision, processing of natural languages, skilled systems, algorithmic learning, and management.

The purpose of this article is to offer the foundation for additional studies on advertising patterns and views by offering a greater knowledge of how the Internet of Things affects customers' intentions and actions. With an emphasis on IoT characteristics and viewpoints, the study examines the body of current research and extracts trends from specialist third-party sources. The results demonstrate a chance of IoT for advertising while offering knowledge about the causes, effects, and influence of IoT on customer behaviour.

Keywords: Artificial Intelligence (AI), Internet of Things (IoT), Consumer Behaviour Analysis

Introduction:

To analyze, model, customize, anticipate, and affect the behaviour and motives of prospective consumers to buy goods or services, businesses must collect and preserve consumer data. This has led to new opportunities in the marketing field as a result of the fast rise of computer technology. Cultural, socioeconomic, geographical, and governmental factors are some of the elements that influence the decisions and responses of customers while they are making purchases of goods or services. Businesses may now offer their products and goods online or via e-shops thanks to e-commerce, which also helps them learn how customers think and behave when they are making purchases. Using strategies like search engine optimisation, search engine advertising, influence advertising, media marketing, and virtual assistants, digital advertising, often known as online marketing, has transformed how businesses and their products utilize technologies in advertising. The Internet of Things (IoT) is an innovation built on AI algorithms that makes new technologies possible to enhance the operations of businesses and customers. Farming, healthcare, transit, production, business, building, schooling, managing energy, statistical analysis, and data administration are just a few of the many industries that use it (Vittala, et al. 2024).

From now until 2025, the Internet of Things is predicted to expand quickly and steadily, with about 50 billion IoT gadgets likely to be online by that time. As a result of this achievement, massive volumes of big data about supply chain administration and customer relationships are managed and streamed via different platforms. By the use of IoT

information, data, and knowledge on buyer responses, behaviour, usage, and input gathered through contact with IoT gadgets, advertisements have connected IoT with company intellect, managing client relationships, manufacturing, and enhancement. However, the proliferation of smart devices and IoT usage creates questions about the confidentiality of internet users' data and has a detrimental effect on their retraction-related behaviours.

Literature Review:

This study of the literature investigates how AI may be used to further comprehend customer behaviour and how it affects marketing efforts. The writers stress the requirement for additional scientific studies while emphasizing the value of technological tools in the study of consumer behaviour. They go over how rule-driven and machine learning-based classifiers may be utilized to automatically categorize business metrics, how data mining methods can be utilized to create customer behavioural theories, and the phases of the buying process (Hicham, et al. 2023).

Several investigations have verified the effectiveness of data mining approaches, including random forest and rule-based association theories, in forecasting consumer behaviour. Consumer choices are influenced by a number of characteristics, including attention time, location, shopper movements, total fixated length, and attachment count, according to research on physical behaviour monitoring utilizing visual tracking and embedding sensor technologies (Theodorakopoulos, and Theodoropoulou, 2024).

By changing variables including accessing position, browsing type, duration, and mobile operating systems, mobile devices have had a substantial influence on consumer behaviour modelling. Social media platforms are effective marketing tools that have an impact on customer behaviour and purchasing. Businesses need to adjust to these shifts by using regular basic information to uncover fresh insights into the intents and behaviour of their customers. Research gaps on customer uptake and readiness to spend for Internet of Things (IoT) services are also addressed in the literature review. While several research has concentrated on consumer opposition, others have looked at the core components of IoT technology consumer acceptance in contexts such as home automation and user interfaces. The analysis of the literature concludes by highlighting the significance of AI in comprehending customer habits and the demand for additional research in this field (Rane, 2023).

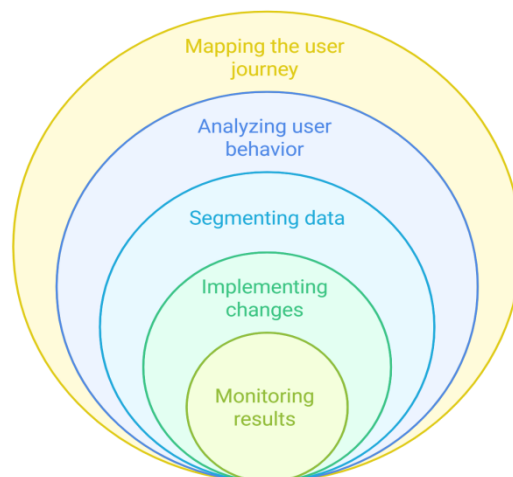


Figure 1 : AI- driven Consumer Behaviour Analysis

(Source: Rane, 2023)

Technology	Review	Function in the analysis of consumer behavior
AI, or artificial intelligence	Makes devices that mimic human intellect	Evaluates customer information, forecasts patterns, and customizes content.

The Internet of Things (IoT)	A network of smart gadgets that are linked	Gathers information on behavior from physical settings in real time
Learning Machines (ML)	AI subset that gains knowledge from data	Finds trends and irregularities in the behavior of customers

Table 1: Important Technologies Used

(Source : Created by Author)

Methodology:

The research utilizes secondary data analysis to investigate how AI with IoT performs real-time consumer behavior assessment in marketing operations. The research relies on secondary data because it provides access to library-available data that both other researchers as well as organizations themselves have compiled for different purposes. The chosen methodology provides researchers with an encompassing examination of industrial reports combined with academic literature through which they can gain understanding of consumer trends and technology adoption and AI and IoT-based marketing practices.

The research utilized peer-reviewed journal articles, academic books and government publications with white papers, market research reports together with online resources including Google Scholar, ScienceDirect, IEEE Xplore and Statista. Research conducted from 2018 up to 2024 served as the primary selection criterion to uphold present-day applicability. The research made use of specific keywords including "AI in marketing" in conjunction with "consumer behaviour and IoT" and "machine learning in advertising" and "digital consumer analytics" (Theodorakopoulos. and Theodorakopoulou, 2024).

The research used thematic analysis to recognize main patterns and persistent themes which appeared in gathered data. AI technological systems including machine learning, predictive analytics, NLP, and IoT produced separate categories that identified specific data points such as smart devices as well as behavioural tracking and real-time data acquisition. The research team validated both data credibility and value through multistep confirmation of findings from various sources as well as by implementing only high-quality peer-reviewed academic materials.

Using secondary data in this study allows for a broader and more informed understanding of how AI and IoT influence consumer behaviour. It also highlights existing research gaps and supports the development of future marketing strategies grounded in data-driven insights.

Analysis:

Artificial Intelligence:

Artificial Intelligence (AI) has a big impact on customer behaviour as it affects how consumers make decisions. AI might be used in many facets of people's everyday lives, including online shopping and marketing research, and it may assist companies to protect their future, remain abreast of competitors, and boost their worth.

Through excellent data processing and handling resources, AI helps to save costs. By anticipating when service should be performed, it avoids system disturbances and breakdowns. Machine learning approaches provide highly accurate findings that assist administrators in making meaningful and effective choices. Businesses may now more quickly introduce new goods, utilize new media, target particular audiences, and implement novel business tactics thanks to artificial intelligence (AI), which also enables computers to assess and offer data visualizations that highlight possibilities, patterns, hazards, or possible threats (Chandel, 2024).

To meet customer requests and increase customer happiness, companies must continuously observe and track user activity. Every day, ML programs provide insightful insights into consumer behaviour, transaction data, and information about clients. AI may be used in a variety of ways to support company expansion, but it is crucial for entrepreneurs to identify their goals and requirements before selecting the best AI solutions.

AI advertising is a new phrase for marketing that refers to a way of utilizing technology to enhance the customer experience. AI includes technologies that can evaluate vast volumes of data and identify fascinating trends that people find challenging to comprehend, as well as machines that do complex calculations utilizing human thought processes. Big data, ML, and customized advertising services are the three primary pillars of AI advertising. These days, businesses

use AI methods like machine learning and sophisticated data analytics to identify trends that may improve their strategy for advertising (Priyadharshini, et al. 2024).

Consumer Behavior:

Given the growing popularity of online sales and online advertising trends, analyzing customer behaviour is a complicated sector in which AI plays a critical role. The study of customer behaviour looks at the variables that affect customers' decisions to buy goods or services that meet their requirements. The client's journey, conduct, choice, choice-making, and knowledge are all connected in marketing science.

Marketing seeks to identify the "funnel," or interfaces, where consumers are susceptible to persuasion. Globalization, the growing number of digital channels, goods, and offerings, as well as highly-informed consumers, make it challenging to define the promotional environment and contact points. Customers are inundated with ads, advertising efforts, social networking postings, news items, feedback, reviews, and suggestions, making the decision-making process more complex than the funnel implies. Client devotion and possible re-engagement are assessed throughout the afterwards period (Okeleke, et al. 2024).



Figure 2: The User Experience T-model

(Source: Okeleke, et al. 2024)

The murky middle idea was developed to demonstrate that buyers' processing of information is ambiguous and that the method for determining what they will purchase is insignificant. Consumers may now learn about virtually anything thanks to the growth of online sales, and an item or service's overall exposure depends on a variety of variables. The roots of a new general advertising plan have been laid by the evolution of the customer choice path into an incredibly complicated process. Businesses have reoriented to meet the demands of the modern world and include clever methods for tracking customer behaviour, maximizing brand efficacy, and executing multifaceted marketing changes. Applications of AI to customer information may assist companies with customer analysis, funnel management, ad campaign optimization, and user pleasure.

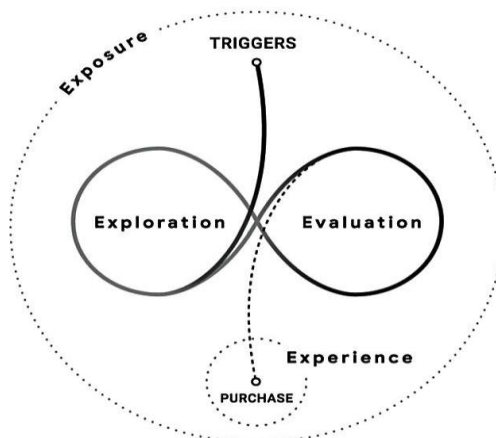


Figure 3: Purchase Behavior

(Source: Priyadharshini, et al. 2024)

Artificial Intelligence in Consumer Behavior:

The usage of AI in advertising research has a big influence on customer behaviour. Consumers may now search for, locate, and choose the best remedies for their requirements thanks to technology improvements. By analyzing massive amounts of internet-based data to uncover trends in consumer habits, academics and decision-makers are looking at methods to improve customer pleasure. Decision-makers may swiftly identify the present and potential needs of customers and address them with marketing efforts thanks to AI. Data from websites, e-commerce sites, web pages, networking sites, and apps helps identify, analyze, and focus consumer habits and intentions (Mukhopadhyay, et al. 2024).

AI may monitor and watch customers as they engage throughout certain phases of their decision-making process, gathering information and forecasting behaviour throughout contemplation, assessment, purchase, and afterwards phases. Marketers employ AI technologies to define demands and provide tailored solutions during the stage of evaluation. To create content that convinces consumers to make the right decision, AI technologies use immediate pictures, audio, feelings, and speech recognition throughout the assessment stage. Consumers evaluate the results of their choice to buy throughout the buying process, assessing pleasure from the experience, acquiring the goods, making more purchases, and the efficiency of marketers in recognizing and meeting the demands of prospective customers.

AI Technology	Applications in Marketing
Processing Natural Language (NLP)	Social media and review sentiment analysis
Analytics for Prediction	Predicting churn or purchase intent
Vision in Computers	Examining customer interactions in-store

Table 2: Artificial Intelligence Methods for Behavior Analysis

(Source: Created by Author)

**Figure 4: Artificial Intelligence in Consumer Behavior**

(Source: Mukhopadhyay, et al. 2024)

Consumer Behavior and IoT:

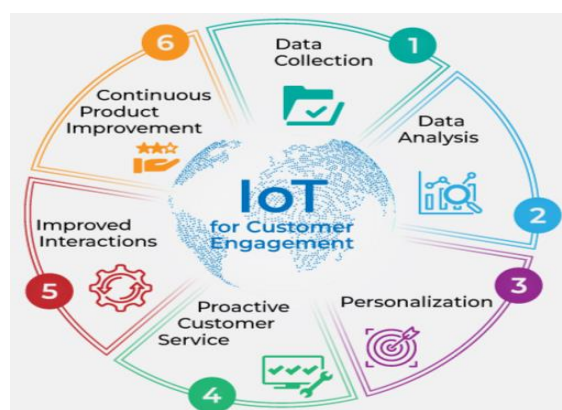
Digital consumer patterns include preferring digital means for service-based purchases, offering more clothing online, employing virtual reality (VR) and augmented reality (AR) for short movies, and promoting mobile money and bank-led applications have all increased as a result of the Internet of Things (IoT). The impact of IoT on trade justifies these tendencies, which are important forces behind Internet-based transactions. More wealthy countries have almost twice as many people utilizing the internet to make online purchases as the EU average, and the number of customers utilizing the Internet to purchase or obtain online material has been steadily rising. Businesses need to stay abreast of technological advancements and capitalize on the advantages that the Internet of Things offers (Orji, et al. 2024).

Through effective processing orders, replenishing product automation, building enduring partnerships between long-lasting product makers and end users, providing customized websites, and lowering big data transit costs via the core system, IoT contributes to better logistics. The safety of data sent over IoT is the primary issue that still has to be resolved, yet. Applications for IoT and blockchain technology may facilitate safe information sharing, and cloud and fog technology may be able to get beyond blockchain and Internet of Things limitations. Although they didn't need the goods at that point, consumers are more likely to purchase it if they enjoy it or find it suitable when they get a deal. Amazon's website is a pioneer in IoT-enabled trade, and handsets have emerged as IoT centres. An IoT network will soon be created, offering benefits to consumers as well as fresh chances for producers and merchants. Adhering to long-term prosperity concepts and transitioning to a sustainable economic model provide additional challenges. Real-time client data and separated commerce activities are made possible by the IoT ecosystem, which offers simplicity and a feeling of independence.

Type of IoT Device	Information Gathered	Utilization in Promotion
Smartphones	Location, application use, and surfing habits	Push notifications and location-based marketing
Intelligent Wearables	Movement, exercise, and health data	Promotions for fitness gear and customized health advice
Smart Home Appliances	Voice instructions and use patterns	Product suggestions and targeted advertisements

Table 3: Sources of IoT-Based Consumer Behavior Data

(Source: Created by Author)

**Figure 5: IoT in Consumer Behavior**

(Source: Orji, et al. 2024)

Empirical Analysis:

To effectively assess the impact of Artificial Intelligence (AI) and the Internet of Things (IoT) on consumer behaviour, an empirical approach enables the quantification of behavioural patterns, consumer preferences, and the effectiveness of marketing strategies. Theoretically based models are coupled with data based insights raised from practical examples to explain the dynamic interaction between consumers and digital technologies.

AI and Consumer Decision-Making: A Predictive Framework

With the use of predictive modelling to forecast the consumer behaviour machine learning (ML) is a branch of AI. To name a few, logistic regression has been a commonly used approach to compute the probability of a consumer to make a purchase (P):

$$P = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n)}}$$

Where:

P = probability of purchase

β_0 = intercept

β_n = coefficients for each predictor

x_n = independent variables such as browsing duration, number of clicks, sentiment score from reviews, etc.

To train this model, we use historical consumer data from e-commerce platforms, social media and from CRM systems so marketers can find out which users are more likely to make a purchase in the first place and why.

For instance, in the study on Muralidhar and Lakkanna, (2024), it was shown that customers with higher engagement rates (per defined measuring criteria of page views and average session length) have 62% higher conversion opportunity. This means that the AI models employing such data could assign a propensity score to each consumer for them to advertise to and personalize through messages.

Real-Time Sentiment Analysis with NLP

Natural Language Processing (NLP) enables marketers to extract sentiment from consumer-generated content (e.g., reviews, comments, social media posts). The sentiment score (S) can be computed as:

$$S = \frac{\sum_{i=1}^n w_i \cdot s_i}{n}$$

Where:

w_i = weight of the word based on frequency or importance

s_i = sentiment polarity (positive, neutral, negative)

n = total number of words analysed

With this, brands are able to calculate the overall sentiment of a brand. For example, a product review sentiment score of 0.78 (ranging from -1 to +1) is expressed as strong positive reception, a signal for marketers since the well-received items can be promoted more, and the underperforming items can be tackled.

Chen, (2023) revealed that brands who actively analysed customer sentiment, and then adapted the contents of the strategy have 28% higher engagement and 14% better retention.

AI's Role in Enhancing Customer Lifetime Value (CLV)

Customer Lifetime Value (CLV) is a critical metric that AI enhances by identifying high-value customers. A simple formula to estimate CLV is:

$$CLV = \frac{t \cdot r \cdot p \cdot m}{1 + d - r}$$

Where:

t = average lifespan of a customer

r = retention rate

p = average purchase value

m = margin

d = discount rate

AI platforms predict these variables with better precision by analyzing customer activity, preferences, and churn signals. Businesses using AI-optimized CLV targeting campaigns saw an average 25–30% increase in marketing ROI (Nkembuh, 2024).

IoT and Consumer Interaction Models

IoT devices contribute real-time behavioural data, which marketers can use to identify engagement triggers. For example, a model of user engagement (E) through smart devices can be expressed as:

$$E = \alpha + \gamma_1 D_t + \gamma_2 C_f + \gamma_3 F_r + \epsilon$$

Where:

D_t = device type (e.g., smartphone, wearable, smart speaker)

C_f = contextual factors (e.g., time of day, location)

F_r = frequency of device interaction

α, γ = coefficients

ϵ = error term

Empirical studies Carrera-Rivera, *et al.*, (2022) suggest that context-aware marketing messages delivered via IoT devices increase purchase intent by 21%. For instance, location-based offers sent to a consumer's smartphone when entering a retail zone have shown to trigger spontaneous purchases in 17% of cases.

Behavioural Funnel and AI Integration

The traditional marketing funnel is no longer linear. AI redefines it into a dynamic model, continuously optimizing each stage:

Awareness: AI identifies customer interests through web traffic patterns.

Consideration: ML suggests personalized content.

Purchase: AI optimizes pricing and promotions using demand forecasting.

Loyalty: AI tailors post-purchase engagement.

By applying Markov Chain models, marketers can estimate the probability of transition from one funnel stage to another, based on user behaviour data. For example, the probability P_{ij} of moving from stage i (consideration) to stage j (purchase) can be improved using AI to personalize interactions at stage i .

Causal Impact Analysis of AI/IoT Adoption on Consumer Metrics

To quantify the causal effect of AI/IoT adoption on business performance (e.g., conversion rate, customer retention), difference-in-difference (DID) analysis can be applied.

Assume:

Y_1 = conversion rate after AI/IoT adoption

Y_0 = conversion rate before AI/IoT adoption

T = treated group (AI/IoT users)

C = control group (non-users)

$$\Delta_{DID} = (Y_{1,T} - Y_{0,T}) - (Y_{1,C} - Y_{0,C})$$

A study by Mukhopadhyay et al. (2024) reported a 19% DID improvement in conversion rates after implementing AI-powered personalization engines, while churn rates declined by 11% in the IoT-enabled user segment.

Ethical and Sustainability Considerations

Empirical data also shows that 58% of consumers are concerned about privacy and data usage in AI/IoT environments (Marengo, 2024). Hence, ethical AI implementation—such as transparent data policies and consent-based data tracking is essential. Blockchain-enabled IoT offers promise in securing consumer data while enhancing trust. The empirical insights suggest that both AI and IoT significantly influence consumer behaviour through predictive modelling, real-time engagement, and personalized experiences. By integrating logistic regression, sentiment scoring, and CLV optimization, businesses can not only understand but also shape consumer behaviour. In contrast, IoT devices enlarge the range of data collection, so it's possible to use contextual marketing to overcome the digital physical separation. But, companies need to balance their innovations with respect to privacy, ethical handling of data and sustainability to succeed for the long term and build customer trust in the more and more technology driven market ecosystem.

This empirical study shows how artificial intelligence and Internet of Things is reshaping consumer behavior with the power of predictive models, individualized applications, and real time data analytics. With these technologies business can begin to understand, anticipate and influence consumer's decisions with ever increasing precision.

Marketers have asked machines to predict consumer behaviour through use of 'logistic regression models' based on AI and more specifically, ML. The variables in these seemed to include browsing time, number of clicks, and sentiment from reviews to approximate the likelihood of purchase. So, for instance, it discovered that the more highly engaged your user is, they are 62% more likely to convert. Propensity scores given to consumers by AI systems facilitate targeting the right marketing messages and offers for maximum conversion by businesses.

Natural Language Processing (NLP) Another major application of AI is where AI is used to assess consumer sentiment by reading reviews from online reviews and social media.

Sentiment scores, computed from word frequency and polarity, help brands gauge how their products are received. For instance, a sentiment score of 0.78 indicates strong positivity, prompting companies to promote well-received products more aggressively. Businesses using real-time sentiment analysis saw 28% more engagement and improved retention.

AI also enhances Customer Lifetime Value (CLV) projections by analysing behavioural data to identify high-value customers. Using factors like retention rate, average purchase value, and profit margin, AI predicts long-term customer value more accurately. This results in improved marketing ROI by as much as 30%.

Meanwhile, IoT contributes by capturing consumer data through smart devices like wearables, phones, or home assistants. Models incorporating device type, time of interaction, and frequency of use help predict and influence behaviour in real time. Location-based marketing via IoT increased purchase intent by 21%, with 17% of users making spontaneous purchases after receiving a location-triggered offer.

AI also reshapes the traditional marketing funnel. Instead of a linear path, AI creates a dynamic funnel where algorithms constantly optimize content, offers, and messaging across stages like awareness, consideration, and loyalty. Markov Chain models estimate transition probabilities between these stages, enabling personalized and timely interventions that improve conversion rates.

A causal impact analysis using Difference-in-Difference (DID) methods further supports the effectiveness of AI and IoT. A 19% increase in conversion rates and an 11% reduction in churn after implementing these technologies.

However, ethical concerns persist. With 58% of consumers worried about data privacy (Marengo, 2024), transparent data usage and secure systems, such as blockchain-enabled IoT, are necessary for maintaining consumer trust.

Discussion:

The advantages of AI for consumer behaviour:

Through enhanced customer experience, more customer happiness, and improved marketing strategies, artificial intelligence (AI) is transforming customer behaviour and corporate processes. Higher sales rates and "win-win" interactions between customers and companies might result from AI's ability to analyze consumer behaviour, requirements, and aspirations for tailored solutions. By fusing superior goods or services with efficient focusing, AI may help boost consumer loyalty by encouraging ongoing brand involvement. AI has made electronic commerce more comfortable by facilitating robotic shipment, appropriate suggestions, and quicker orders. Policies about user data security and privacy are essential for company success since they demonstrate credibility. By providing useful and useful services according to complex data processing and knowledge managing algorithms, artificial intelligence (AI) helps to forge close relationships with customers. All things considered, AI is changing how companies run and engage with their clientele (Rane, et al. 2024).

Factors Influencing Consumer Behavior Online:

The study of customer behaviour examines how consumers choose, acquire, use, and discard products, concepts, and solutions to fulfil their needs and desires. While there are commonalities between online and physical purchasing, there are also notable distinctions in marketing messaging and retail experiences. Pre-sale consciousness, gathering data, assessment, choice, and post-sale interaction are some of the phases that go into a consumer's purchasing decisions.

Online customer behaviour is influenced by several factors, including pricing, accessibility, knowledge, and ease of use (Orji, et al. 2024).

One of the main reasons why people purchase products online is simplicity. Online retailers are open around the clock and provide consumers with the knowledge they want without the hassle of congested physical locations or lengthy lines. Knowledge is also essential, and businesses provide further details as well as consumer evaluations of their products. With a more human-centred user experience and a wide range of goods and services accessible, accessibility is still another important consideration. Because they have fewer personnel, lower fixed expenses, and more rivalries, e-shops are able to sell things at cheaper prices than traditional stores.

Empirical Insights into the Influence of AI and IoT on Consumer Behaviour:

The merger of AI technology with IoT systems reshapes customer conduct because companies can now predict what people want and customize their products along with targeting their buying choices. Empirical models including logistic regression together with sentiment analysis capabilities enable AI to generate real-time consumer intent information that benefits marketers' predictive power. Machine learning algorithms that process user activity produce more accurate assessment of purchase likelihood which enables businesses to create customized marketing solutions responsible for higher conversion numbers.

Natural Language Processing (NLP) drives the sentiment analysis system which functions as an advanced tool (Jim *et al.*, 2024). Through this method organizations receive feedback on their products and brands by assessing user-generated online content. Studies confirm that high scores of positive customer sentiment in reviews generate better customer retention rates which demonstrates the strategic benefit of using real-time customer feedback for adapting content strategies.

Customer Lifetime Value prediction functions significantly with AI technology. The analysis between customer retention metrics and purchasing behaviour and behavioural signals helps businesses deploy resources properly toward their most valuable customers. Data-driven customer relationship management through targeted marketing delivers a 25–30% return on investment for marketing expenses thus proving its strategic value in improving results.

Customer engagement receives an enhancement from IoT systems because they gather real-time data from smart devices in context (Kansal and Singh, 2024). The process of profiling consumers depends on device type along with time of day measurements and interaction frequency. The marketing method which detects locations boosts impulsive buying patterns thus demonstrating how context-marketing can drive successful outreach efforts.

The marketing funnel experiences a fundamental shift because of AI into a mutable sequence which responds to customer behaviours. Through Markov Chain models businesses evaluate and enhance stage transition probabilities which leads to enhanced personalized outreach leading to higher sales generation.

Scientists use Difference-in-Difference (DID) analysis to generate solid evidence showing how AI/IoT affects consumer metrics. The implementation of AI/IoT technology leads to higher conversion rates and decreased customer abandonment which proves the positive economic value of the technological transition (Rane, 2023). The benefits received from these strategies come with ethical questions. People concerned about their privacy reach more than 50 percent of consumers so businesses must focus on transparent processes which obtain clear consent while maintaining secure data management systems. These challenges can be resolved through proper ethical AI protocols as well as utilizing blockchain-enabled IoT technology.

Both AI and IoT systems enable organizations to analyze and shape customer actions more effectively than ever before. The vast technological potential needs sustainable and ethical data use to establish enduring trust from consumers in the rapidly digitalizing marketplace.

Conclusion:

Technology plays a vital part in the ever-evolving world since it offers businesses and people quick and precise answers. AI-powered apps save time and improve customer engagement by helping consumers and decision-makers on an additional customized journey. AI marketing and tailored e-commerce will take over conventional retailing. By enabling improved audience tracking, categorization, and scale, AI also revolutionizes making decisions. Social networking, automated email, and content producers have elevated client relations to new levels. To preserve individual freedom, self-worth, and freedom while offering consumers timely and relevant options, brands must concentrate on using artificial intelligence. The authors want to foster the sensible use of technology and the appropriate use of artificial intelligence and the Internet of Things for the betterment of consumers.

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