

Analysing the Impact of Artificial Intelligence (AI), Marketing Tools on Consumer Behaviour in the Fast Moving Consumer Goods with Special Reference to Cosmetic Products in Chennai City

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Abstract

This research paper analyzes the impact of Artificial Intelligence (AI), marketing tools on consumer behavior in the Fast Moving Consumer Goods in cosmetic product. The study investigates the impact of AI-powered marketing on consumer awareness, engagement, and purchase decision-making. It focuses on a spectrum of AI tools utilized in the industry, including simulated try-on experiences, personalized product recommendations, and the use of AI-powered chat bots for consumer perception, preference, and decision-making in the Fast Moving Consumer Goods in cosmetic products. The objectives include investigating the impact of AI marketing tools on consumer behavior in the FMCG products, focusing on the influence of AI-driven personalization on consumer engagement, loyalty, and retention, as well as analyzing the effect of AI-powered personalization on consumer buying behavior of Fast Moving Consumer Goods in cosmetic products. The problem of this study has been that the cosmetic products faces a challenge in effectively building brand loyalty and engaging sales with consumers. Consumers are not aware of how to perceive and interact with AI-powered marketing tools in the FMCG. This research adopts a descriptive quantitative research design, and data was collected through Google Forms on consumer behavior in FMCG products. The population consisted of 120 respondents selected using the convenience sampling method. The hypotheses were tested using correlation and regression analysis strategies. This study intends to provide cosmetic products, marketers, and policymakers with valuable insights by illuminating the complex interactions between AI marketing technologies and consumer behaviors in FMCG products. The study aims to comprehend the intricacies of this connection as researchers navigate the changing territory of technologies in FMCG products, making sure that AI interventions not only satisfy customer demands but also impact the total purchasing power of cosmetics products favorably.

Keywords: Artificial Intelligence (AI), Marketing Tools, Fmcg, Consumer Behaviour

Introduction

Digital marketing tool relations with customers will probably change as a result of artificial intelligence (AI). The fact that AI is data-driven sets it away from each other from human intuition.

The ability of AI to convert data into strategies that direct meaningful consumer behavior is sometimes referred to as human intelligence processes by computers. Businesses that use preset marketing tool to change consumer behavior are more likely to see higher levels of customer satisfaction. Reaching the appropriate customer at the right moment is made much simpler for firms by AI-based digital marketing. The unanticipated advantage of purposefully encouraging AI innovation to support digital marketing, that raises consumer happiness. AI-controlled chatbots, big data, and cognitive technology outputs are all helping businesses. Stores who use AI-powered marketing outperform traditional stores by a factor of five. Digital marketing has significantly altered customer behavior, with contemporary consumers anticipating a more individualized and consistent experience. Customers are willing to invest more time in their own education prior to making a purchase since they may have trust concerns as a result of AI innovation in digital marketing. Today's educated consumers are more inclined to investigate a product or service before making a purchase.

AI and Digital Marketing in Consumer Behaviour

There is presently no system to prognosticate the effectiveness of AI-enabled digital marketing. Exploration indicates that improper use of digital marketing might have adverse effects. This could be an issue for companies trying to incorporate AI into their operations. Businesses that want to provide successful AI-grounded digital marketing must have a robust IT structure since AI requires high-quality, material marketing data. Understanding how consumers perceive AI innovation as an element of their literacy capacities and how this enhances a company's appeal is thus pivotal. The results of a service quality analysis show a relationship between the quality of the service provided and potential prospects for the backing's capabilities. There is presently a lack of exploration on how guests respond to machine-controlled services, particularly AI-enabled service quality and purchase requests. Since AI-enabled services are generally built on advancements in tone operation, the quality of services provided by these services is likely to differ significantly from those of social associations. Therefore, we explore how to enhance customer capabilities by combining AI with digital marketing. Based on the AI-centered shopping experience, service quality, and trust-confidence premise, we have created a model in Figure 1 that makes it easier to understand the behaviors and actions of online shoppers. To capitalize on technological advancements and support successful marketing endeavors, our strategy incorporates trust and confidence to bridge the gap between quality, convenience, and AI assistance. This study guides businesses to develop personalized AI strategies and ensures specific clientele

benefit from the valuable insights gained through AI applications. It also advances our understanding of human collaboration with AI-powered services.

Problem of the Study

In this study Concerns over their effect on customer behavior have been raised by the growing use of Artificial Intelligence (AI) marketing technologies in the Fast-Moving customer Goods (FMCG) sector, especially in the cosmetics business. Even while AI-powered marketing is becoming more and more popular, little is known about how these technologies affect consumer behavior in general, brand loyalty, and purchase decisions when it comes to cosmetics.

Scope of the Study

This study focuses on the cosmetic products market in Chennai City, exploring the impact of AI-powered marketing tools on consumer behaviour. The study's findings will be appropriate to marketers, business professionals, and researchers interested in understanding the effects of AI-driven marketing on consumer behaviour in the FMCG sector.

Objectives of the Study

- I. Investigating the impact of AI marketing tools on consumer behavior in FMCG products.
- II. Focusing on the influence of AI-driven personalization on consumer engagement, loyalty, and retention.
- III. Analyzing the effect of AI-powered personalization on consumer buying behavior of fast-moving consumer goods in cosmetic products.

Review of Literature

Muhammad Farooq & Yuen Yee Yen (2024) conducted a systematic literature review on artificial intelligence in consumer behavior. The issues raised by these chosen examples offer valuable insights into the intricate relationship between AI, customer attitudes, preferences, decision-making, and the wider ramifications for businesses. This study was concluded with a comprehensive overview of the state of consumer behavior and artificial intelligence research, offering insights applicable to both the academic and corporate sectors.

Varsha Jain, Ketan Wadhvani, & Jacqueline K. (2023) conducted a study on Artificial Intelligence consumer behavior: A hybrid review and research agenda. The problem has been defined

as consumers interact with these applications on multiple platforms and touchpoints; it becomes crucial to understand how these interactions affect consumer behavior and its components, including personality, attitude, engagement, decision-making, and trust. The objectives are rigorous review is required to provide directions for future studies by comprehending the extensive literature, understanding research gaps, and identifying the future directions for scholarly work. This framework and TCM-ADO analysis concluded offer future research directions to advance the theory development and have implications for industry and society.

Bawack & Chen (2022) Research on consumer behavior has broadened its scope to include more intelligent firms and smarter consumers made possible by artificial intelligence. The rich discussion surrounding the role of AI and related technologies, including big data, machine learning, and intelligent systems in consumer behavior. These investigations have looked at AI and consumer behavior from several angles, including opinions of consumers and assessments of brands response. consumer sentiments and trust. A state-of-the-art summary is necessary to reflect the significant advancements in our knowledge of AI's role and use in consumer behavior.

Fazla Rabby, Ranga Chimhundu & Rumman Hassan (2021) defined artificial intelligence in digital marketing's influence on consumer behavior in their research: a review and theoretical foundation for future research. The problem addressed in this study is that businesses have a long way to go before adopting AI-based applications, but many recognize the critical benefits of integrating AI into digital marketing practices to create an exceptional customer experience during the buying process. This literature review concludes that AI-based digital marketing applications can enhance the online customer experience by focusing on the customer decision journey. The study closely examines how AI-integrated digital marketing influences consumer buying behavior.

Rohden & Zeferino (2023) In their research of AI-driven recommendation systems and their implications on customers' perceptions of data privacy risk, their objectives emphasize the significance of customer trust. In their study on personalized engagement marketing, they concluded that AI is transforming how customers connect with businesses and that it will have an impact on branding.

Chopra 2020 Chatbots use AI technology to ease client interactions in digital marketing platforms and answer natural language questions . However, they cannot seek human collaboration in

encouraging relationships. They may provide systematic research in a competent manner. Preferences are heavily influenced by perceived value and transparency and its affecting attitudes and consumer behavior. Chatbots have recognized humans, social cognition and the existence of society, trust, skills, and utility in relation to social needs. They concluded the Chatbots identify various psychological kinds, and messages are created that resonate with the tendencies that form individual recommendation structures. AI-powered systems can offer personalized recommendations to digital marketing purchasers, assisting clients in finding suitable items and services. Artificial intelligence applications for client decision-making are an unstudied field. This thorough review of the literature seeks to address this research gap.

According to Kiron and Schrage (2019), organizations and consumers can connect and collaborate with one another via digital platforms, and they may rely on technologies in value co-innovation. Analysts, however, are concentrating on how AI is frequently applied to create fresh action plans. A potential result of using the AI method to business and marketing content. Within a digital setting, virtual customer interaction can be characterized as behavioral symptoms experienced by customers as a result of their motivational drivers and take place when the company or brand is the main attraction. Mechanizing different facets of marketing and data products that can be utilized to support AI is one advantage of this breakthrough in AI digital marketing. Thus, AI Data care must come naturally, and utilization must be integrated with digital marketing applications. and suggestions need to be brought back to these different areas.

Koushiki Biswas and Dr. Gourango Patra (2023) Role of Artificial Intelligence (AI) in Changing Consumer Buying Behaviour. This case study examines how positively Artificial Intelligence (AI) has affected marketers' capacity to analyse and comprehend customer behaviour and also studying millions of instances, an image recognition technology may be able to detect and classify objects in photographs. A chatbot can learn to have realistic conversations with people by being shown instances of text chats. To stay ahead of the competition, businesses must now leverage the greatest AI talent. It is concluded that traffic is ultimately generated, which is positive for marketing teams looking to convert visitors. Technology like artificial intelligence (AI) is changing the way we view and comprehend marketing.

Research Methodology

Understanding the function and goal of research design is crucial before delving into the many kinds of research designs. It's also necessary to understand the kind of research design that has been developed. Customers of AI-driven cosmetic goods were surveyed as part of the descriptive study design.

Sampling Method & Sample Size

Convenience sampling technique and correlation were used for the survey. The questionnaire was filled out by the selected respondents. The sample size included a sufficient number in Chennai District. The sample size selected is 120. A large sample size has been avoided due to its difficulty to manage, and a small sample size is avoided due to improper representation.

Tools and Data Analysis

Data have been analyzed and tested with the help of tables, charts and percentage analysis.

Analysis

Table 1: Demographic Variables of Fast Moving Consumer Goods - Cosmetic Consumers

S.NO	DEMOGRAPHIC VARIABLES	CLASSIFICATION OF VARIABLES	RESPONDENTS	PERCENTAGE	CHART
1	AGE	LESS THAN 20 YEARS	45	38%	
		20 YEARS - 40 YEARS	72	60%	
		40 YEARS - 60 YEARS	0	0%	
		ABOVE 60 YEARS	3	3%	
		TOTAL	120	100%	

2	GENDER	FEMALE	87	73%	
		MALE	33	28%	
		TRANSGENDER	0	0%	
		TOTAL	120	100%	
3	MONTHLY INCOME	LESS THAN 10000	69	58%	
		10001 – 30000	42	35%	
		30001 – 50000	9	8%	
		ABOVE 50000	0	0%	
		TOTAL	120	100%	
4	EDUCATIONAL QUALIFICATION	UNEDUCATED	0	0%	
		HIGHER SECONDARY + TECHNICAL QUALIFICATION	11	9%	
		UNDER GRADUATE	70	58%	
		POST GRADUATE	10	8%	
		DOCTORAL	29	24%	
		TOTAL	120	100%	
		5	OCCUPATION	STUDENT	
HOUSEWIFE	3			3%	
EMPLOYEE	24			20%	
SERVICE	3			3%	
BUSINESS	0			0%	
TOTAL	120			100%	

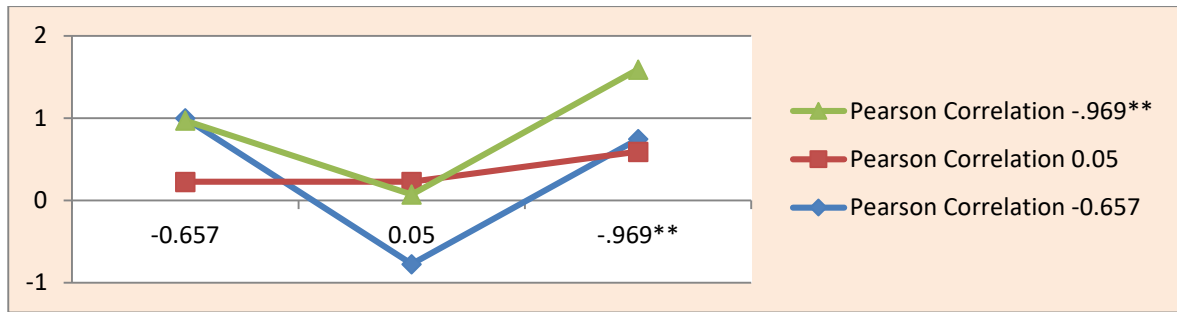
INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOR IN FMCG PRODUCTS.

TABLE 2. CORRELATION

		STRON GLY AGREE	AGREE	NEUTR AL	DISAGR EE	STRON GLY
INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOUR IN THE FMCG PRODUCTS. [PEOPLE ARE AWARE OF AI - POWERED MARKETING TOOLS USED IN FMCG PRODUCTS.	Pearson Correlation	1	-0.657	0.05	. ^a	-.969**
	Sig. (2-tailed)		0.229	0.936	.	0.006
	N	5	5	5	5	5
INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOUR IN THE FMCG PRODUCTS. [AI POWERED MARKETING TOOLS HAVE YOU ENCOUNTERED WITH EG.. CHAT BOX ,PERSONALIZED RECOMMENDATION, SOCIAL MEDIA ADS ECT.	Pearson Correlation	-0.657	1	- 0.773	. ^a	0.746
	Sig. (2-tailed)	0.229		0.126	.	0.148
	N	5	5	5	5	5

INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOUR IN THE FMCG PRODUCTS. [WOULD YOU PREFER TO PURCHASE FMCG COSMETIC PRODUCTS ONLINE ON A MONTHLY BASIS.]	Pearson Correlation	0.05	-0.773	1	. ^a	-0.153
	Sig. (2-tailed)	0.936	0.126		.	0.806
	N	5	5	5	5	5
INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOUR IN THE FMCG PRODUCTS. [WOULD YOU AN ONLINE PLATFORM TO PURCHASE FMCG COSMETIC PRODUCTS.]	Pearson Correlation	. ^a	. ^a	. ^a	. ^a	. ^a
	Sig. (2-tailed)
	N	5	5	5	5	5
INVESTIGATING THE IMPACT OF AI MARKETING TOOLS ON CONSUMER BEHAVIOUR IN THE FMCG PRODUCTS. [AI - POWERED MARKETING INFLUENCES YOUR PURCHASING DECISIONS WHEN BUYING FMCG COSMETIC PRODUCTS ONLINE.]	Pearson Correlation	-.969**	0.746	-0.153	. ^a	1
	Sig. (2-tailed)	0.006	0.148	0.806	.	
	N	5	5	5	5	5

CHART - 2



Interpretation

In the above table, it seems that Variable 1 and Variable 2 are positively correlated. Similarly, Variable 4 and Variable 6 are also somehow positively correlated. Variable 5 seems to be negatively correlated. The correlation is significant at the 0.01 level (2-tailed). Cannot be computed because at least one of the variables is constant.

FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY, AND RETENTION

PARTICULAR	HIGHLY SATISFIED	SATISFIED	NETURAL	DISSATISFIED	HIGHLY DISSATISFIED
FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY AND RETENTION. [HOW LOYAL YOUR COSMETIC BRANDS THAT OFFER PERSONALIZATION EXPERIENCE.]	48	45	24	3	0
FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY AND RETENTION. [IMPORTANCE OF PERSONALIZATION IN ENGAGING WITH FMCG COSMETIC BRANDS.]	27	57	29	7	0
FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY AND RETENTION. [AI POWERED MARKETING TOOL - IT HELPS TO DRIVE LENGTH OF TIME PURCHASING FROM FAVORITE FMCG COSMETIC BRAND.]	36	60	12	6	6

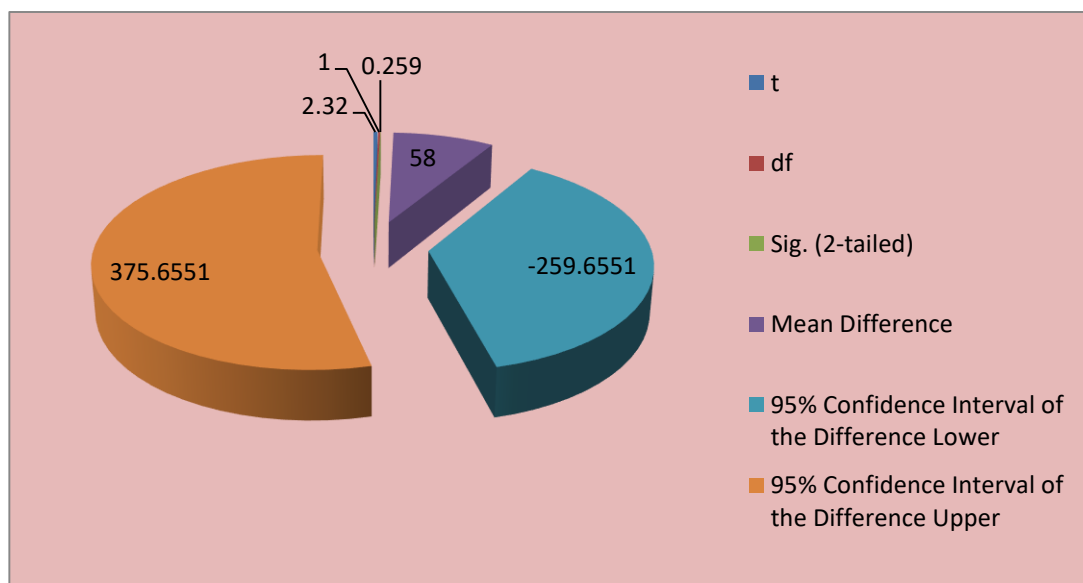
FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY AND RETENTION. [ARE YOU SATISFIED WITH PURCHASING THE AI BRAND MENTIONED WITH BRAND EXTENSION.]	36	54	24	3	3
FOCUSING ON THE INFLUENCE OF AI-DRIVEN PERSONALIZATION ON CONSUMER ENGAGEMENT, LOYALTY AND RETENTION. [ARE YOU SATISFIED WITH SPENDING ON FMCG COSMETIC ITEMS ON A MONTHLY BASIS.]	27	48	39	0	6

t-TEST

	N	Mean	Std. Deviation	Std. Error Mean
VAR00002	2	58	35.35534	25

	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00002	2.32	1	0.259	58	-259.655	375.6551

CHART – 3



Interpretation

In t-test hypothesis testing, the result (M = 58, SD = 35) and dependent sample t-test were performed. Prior to conducting the analysis, the assumption of normally distributed difference scores was examined. The assumption was considered satisfied as the significant difference was 0.259, suggesting that the dependent samples t-test is appropriate in this case. The null hypothesis of equal means was accepted. $t(58) = 2.32 < 0.01$.

ANALYZING THE EFFECT OF AI-POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOR OF FAST-MOVING CONSUMER GOODS IN COSMETIC PRODUCTS.

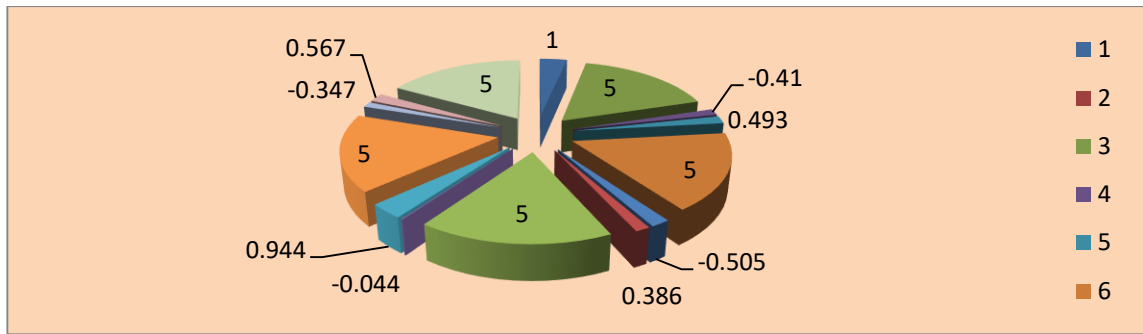
TABLE 4

		HIGHLY SATISFIED	SATISFIED	NETURAL	DISSATISFIED	HIGHLY DISSATISFIED
ANALYSING THE EFFECT OF AI POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOUR OF FAST MOVING CONSUMER GOODS IN COSMETIC PRODUCTS. [IMPACT OF AI POWERED PERSONALIZATION ON LOYALTY.]	Pearson Correlation	1	-0.41	-0.505	-0.044	-0.347
	Sig. (2-tailed)		0.493	0.386	0.944	0.567
	N	5	5	5	5	5

ANALYSING THE EFFECT OF AI POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOUR OF FAST MOVING CONSUMER GOODS IN COSMETIC PRODUCTS. [IT IS IMPORTANT FOR ME TO BUY WELL KNOW CONVENTIONAL FMCG COSMETIC BRANDS.]	Pearson Correlation	-0.41	1	-0.566	0.765	0.241
	Sig. (2-tailed)	0.493		0.32	0.132	0.696
	N	5	5	5	5	5
ANALYSING THE EFFECT OF AI POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOUR OF FAST MOVING CONSUMER GOODS IN COSMETIC PRODUCTS. [I TRY TO SICK TO CERTAIN BRANDS OF FMCG COSMETIC PRODUCTS.]	Pearson Correlation	-0.505	-0.566	1	-0.622	-0.051
	Sig. (2-tailed)	0.386	0.32		0.263	0.935
	N	5	5	5	5	5

ANALYSING THE EFFECT OF AI POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOUR OF FAST MOVING CONSUMER GOODS IN COSMETIC PRODUCTS. [I PAY ATTENTION OF BRAND NAME]	Pearson Correlation	-0.044	0.765	-0.622	1	-0.36
	Sig. (2-tailed)	0.944	0.132	0.263		0.551
	N	5	5	5	5	5
ANALYSING THE EFFECT OF AI POWERED PERSONALIZATION ON CONSUMER BUYING BEHAVIOUR OF FAST MOVING CONSUMER GOODS IN COSMETIC PRODUCTS. [MOSTLY DOMINANT PEOPLE WHO CAN MAKE PURCHASING DECISIONS IN FMCG COSMETIC PRODUCTS.]	Pearson Correlation	-0.347	0.241	-0.051	-0.36	1
	Sig. (2-tailed)	0.567	0.696	0.935	0.551	
	N	5	5	5	5	5

CHART - 4



Interpretation

In the above table, it seems that variable 1 and variable 2 are positively correlated. Variable 4 and variable 6 are also somehow positively correlated. Variable 5 seems to be positively correlated. The correlation is significant at the 0.01 level (2-tailed).

Findings

- I. Based on the products that customers have bought, AI may identify underlying trends in their purchasing behavior and provide them with more intelligent product recommendations, which will ultimately motivate them to make a purchase.
- II. A customer's dynamic journey is shaped by AI-powered customer experience, which adds computer- or machine-performed services to quality evaluations to make it convenient and fulfilling.
- III. AI is transforming the future of digital marketing by fostering trust and providing tailored experiences for consumers.

Suggestions

- I. To Identify patterns in customer purchasing behavior and recommend products based on similarities with other customers.
- II. Analyze customer behavior and preferences to provide personalized experiences.
- III. Utilize AI to track and measure marketing performance and accountability.

Conclusions

AI is a fairly new technology in digital marketing tools with the eventuality to ameliorate the impact on consumer geste. AI marketing tools are a new marketing playbook that allows companies to move from marketing robotization to marketing personalization more effectively. The impact of AI on digital marketing tools has accelerated in recent times, allowing marketers to personalize deals and digital marketing efforts beyond prospects. Because of the vast quantity of data available, marketers have personalized their deals and marketing efforts and exceeded their guests' prospects beyond what they imagined. The delivery of goods and services to consumers could be altered by AI engineering. Incipiently, we can state that the robotization of digital marketing is more dynamic than ever ahead and that data from buyer analysis produces extremely prophetic issues. By using AI marketing results, companies may better understand their target followers' wants and preferences, increase transparency, and identify their target audience on digital marketing platforms. AI techniques on digital marketing platforms are incorporated into live conversations using chatbots, engaging audiences by promptly answering their questions in a user-friendly interface. By combining user-generated data with artificial intelligence tools for digital marketing, businesses can enhance friendly, personalized customer interactions and foster trust on digital platforms.

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