

The Role of AI in Predictive Analytics for Digital Marketing: A Study on Efficiency and Accuracy

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Abstract

There is a significant shift in the digital marketing once the AI technology has been started utilizing. In the current business practices, the organisations are unable to predict customer buying behavior, which is essential to plan the marketing. The marketing management finds it very difficult to develop timely, personalized advertisements.

The study evaluates the role of AI in predictive analysis in digital marketing, particularly in improving its effectiveness and accuracy. In the current time, businesses finds it very important how much value is the technology having for the business. However, even with such a surge in adaption, many people are wondering whether AI can augment predictive capabilities and to what extent and how reliably.

The research adopts a quantitative approach based on a descriptive survey perspective. Data collection involves using a survey questionnaire which was administered to digital marketers in order to assess how they feel about AI in terms of campaign efficiency, target accuracy and the predictive analytics while the campaign is ongoing. The survey instrument included several parts, some of which requested the participants to give their responses by using a standard 5-point Likert scale while other sections provided multiple choices for respondents aiming at facilitating statistical analysis of the key variables of interest towards AI in marketing.

The key factors will be identified after the data analysis. Such factors can be used in the digital marketing to predict and analyse the customer behaviour. With predictive analytics, data-driven insights for real-time adjustments in campaigns can be done. Predictinve analytics can also enhance the smart marketing processes of advertisement targeting and budget allocation, which are very well reflected in increased user engagement and conversion rates.

The discussion of the findings includes consideration of some of the contemporary issues, for instance, protection of data, costs associated with systems integration and the application of specialized personnel to work with AI systems.

The introduction of AI-powered tools changes how business can deal with the digital marketing. Using such tools can make use of the customer segmentation and customer churning.

To summarize, AI is a great asset in the predictive analysis of digital marketing, improving both efficiency in operations and targeting accuracy. However, the organizations need to overcome some challenges such as ethical issues, investment costs and skills in order to better harness the power of the AI. The findings of this study suggest that organizations should consider increasing expenditure on AI training, embed ethical considerations in the use of AI and AI tools, and regularly assess the practicality of AI options in the fast changing digital environment, in order to remain competitive. Future studies might look into the relationship of artificial intelligence and the customer even after the engagement does the marketing for a long time – trust and loyalty in particular.