

Revitalizing Marketing Strategies Through the Use of Artificial Intelligence: Analysis of the Effect of Personalization, Market Data Analysis, and Campaign Automation on Sales Conversions

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Abstract: *This article examines how artificial intelligence (AI) is used in marketing at PT. Tirta Investama. It uses multiple linear regression analyses to study the impact of three key strategies on sales conversion. These strategies are: "Marketing Personalization with AI Technology (X1)," "AI-Based Market Data Analysis (X2)," and "Marketing Campaign Automation (X3)." The results indicate positive effects from each strategy on sales conversion. The strong F-square value (78.21) demonstrates the statistical significance of the model, highlighting the combined impact of these strategies. Additionally, the high R-square value (0.68) suggests that these strategies explain 68% of the variability in sales conversion. Overall, the study underscores the importance of AI-based marketing strategies at PT. Tirta Investama, providing valuable insights for decision-making and enhancing understanding of modern marketing dynamics.*

Introduction

In the rapidly evolving business landscape, revitalizing marketing strategies has become imperative for sustained success. This article delves into the intersection of marketing and artificial intelligence, exploring the impact of personalized approaches, market data analysis, and campaign automation on sales conversions (Trivedi & Patel, 2022). As businesses embrace the era of artificial intelligence, understanding how these elements synergize to enhance marketing effectiveness is crucial (Davenport et al., 2020). This analysis aims to uncover insights into the evolving dynamics of contemporary marketing, shedding light on the role AI-powered strategies play in achieving tangible results and driving sales growth (Abrardi et al., 2022).

Conversion of sales refers to the process by which potential customers are transformed into actual buyers, marking a critical milestone in a business's success. Evaluating the impact

of AI-based marketing strategies on enhancing conversion rates and overall business revenue is essential (Tuomi et al., 2021). As businesses increasingly integrate artificial intelligence into their marketing approaches, the focus shifts toward understanding how these strategies contribute to measurable improvements in conversion rates and financial outcomes (Seo & Yoo, 2023). Implementing AI-driven initiatives, such as personalized marketing, data-driven analysis, and automated campaigns, plays a pivotal role in influencing customer decision-making and conversion rates. By tailoring marketing efforts to individual preferences through personalization, leveraging comprehensive market data analysis, and streamlining campaigns through automation, businesses aim to create a more engaging and targeted customer experience (Fleerackers & Bilgeri, 2020). Evaluating these AI-infused strategies involves assessing their effectiveness in capturing customer interest, fostering engagement, and ultimately driving higher conversion rates. The success of such initiatives is reflected not only in increased conversion numbers but also in the overall revenue growth for businesses navigating the dynamic landscape of contemporary marketing (Akter et al., 2020).

Personalized marketing with AI technology involves tailoring messages and consumer experiences to individual preferences, creating a more relevant and engaging interaction (Domini et al., 2022). This approach uses artificial intelligence to analyze vast datasets and derive insights into customer behaviors, preferences, and habits. By leveraging AI algorithms, businesses can discern patterns and deliver targeted content, ensuring that marketing messages resonate with each consumer on a personal level. The core objective of personalized marketing is to move away from generic, one-size-fits-all approaches and instead provide consumers with content that aligns with their interests and needs (Khan et al., 2022). Through AI-driven personalization, businesses can craft customized messages, recommend products or services based on previous behaviors, and adapt real-time marketing strategies to evolving consumer preferences. This enhances the relevance of marketing messages and cultivates a more positive and personalized experience for the consumer. In practical terms, personalization with AI extends beyond addressing customers by name; it involves understanding their purchase history, online behaviors, and demographic information to anticipate their needs. By delivering content directly to the individual, businesses can foster a stronger customer connection, potentially increasing loyalty and driving conversion rates (Soni, 2023). As technology advances, the synergy between AI and personalized marketing is poised to redefine how businesses engage with their audiences, creating a more meaningful and impactful customer experience (Gupta et al., 2021).

Market data analysis based on AI involves a comprehensive examination of consumer behavior and the identification of market opportunities through advanced technologies. By harnessing the power of artificial intelligence, businesses can gain profound insights into consumer preferences, trends, and purchasing patterns (Grewal et al., 2020). This analysis goes beyond traditional methods, offering a nuanced understanding of market dynamics. Understanding consumer behavior is a cornerstone of AI-driven market data analysis. Through machine learning algorithms, businesses can process vast datasets to unveil patterns that may not be apparent through conventional approaches (Rathore, 2020). This enables companies to

discern what consumers are buying and why and how they make purchasing decisions. Identifying these underlying motivations empowers businesses to tailor their strategies more effectively, aligning products and services with consumer expectations. Moreover, AI-driven market analysis recognizes emerging opportunities (Wichmann et al., 2022). Businesses can swiftly identify shifts in consumer preferences or market trends by constantly sifting through and interpreting large volumes of real-time data. This proactive approach allows organizations to stay ahead of the curve, adapting their offerings to meet evolving demands and seize untapped market potential (Miikkulainen et al., 2020).

By streamlining marketing processes, campaign automation, facilitated by AI, offers operational efficiency and brand consistency to businesses. This strategy involves using artificial intelligence to automate various aspects of marketing campaigns, from content distribution to customer engagement, ensuring a seamless and standardized brand representation. One of the key advantages of campaign automation is operational efficiency (Puntoni et al., 2021). AI-powered tools can handle repetitive tasks such as email scheduling, social media posting, and customer segmentation, allowing marketing teams to focus on their campaigns' more strategic and creative aspects. This accelerates campaign deployment and reduces the likelihood of errors, enhancing overall efficiency in marketing operations (Sardjono et al., 2023). Consistency in brand messaging is another crucial benefit. Automation ensures that marketing materials adhere to brand guidelines consistently across various channels. From social media posts to email campaigns, AI can enforce brand standards, fostering a cohesive and recognizable brand identity (Verma et al., 2021). This uniformity contributes to building a stronger brand image and reinforcing customer trust. Furthermore, campaign automation with AI enables real-time adjustments based on data insights. By continuously analyzing performance metrics, businesses can adapt their campaigns dynamically, optimizing for better results. This data-driven approach enhances the effectiveness of marketing strategies and contributes to a more responsive and agile marketing ecosystem (Riegger et al., 2022).

The article explores the implementation of AI-based marketing strategies at PT. Tirta Investama, emphasizing their potential impact on sales conversion. By delving into personalized marketing, market data analysis, and campaign automation, the analysis aims to evaluate how these AI-driven initiatives can enhance the relevance of messages, understand consumer behavior, and optimize operational efficiency. The focus is on how such advancements in marketing technology could lead to a more personalized and efficient approach, potentially contributing to increased conversion rates and revenue growth for PT. Tirta Investama.

The phenomenon observed in the article revolves around the integration of AI-driven marketing strategies at PT. Tirta Investama. This entails a strategic shift towards personalized marketing, leveraging AI to comprehend consumer behavior through data analysis and automating campaigns for operational efficiency. The phenomenon underscores a broader trend in the business landscape, where companies like PT. Tirta Investama is increasingly recognizing the transformative potential of artificial intelligence in refining its marketing approaches. This shift signifies an embrace of cutting-edge technology and reflects a proactive

effort to adapt to evolving market dynamics, aiming for a more tailored, consistent, and data-driven engagement with consumers.

The article's primary objective is to elucidate the objectives and potential outcomes of implementing AI-based marketing strategies at PT. Tirta Investama. By focusing on personalized marketing, market data analysis, and campaign automation, the article aims to demonstrate how these strategies can collectively enhance the company's marketing effectiveness. The ultimate goal will likely be improved sales conversion rates, increased operational efficiency, and a consistent brand presence. Through a detailed analysis of these AI-driven approaches, the article provides insights into the specific advantages and impacts such strategies can have on PT. Tirta Investama's overall business performance and market positioning.

The following is the framework for this research:

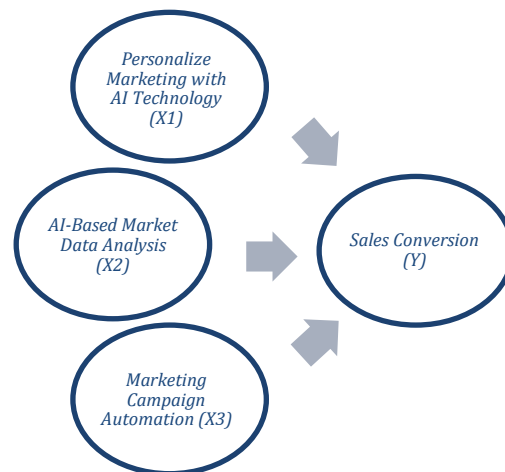


Figure 1. Framework

Research Methods

The article employs a research methodology centered on the random sampling technique at PT. Tirta Investama, selecting a sample size of 67 individuals. Random sampling involves choosing participants randomly from the population, ensuring that each member has an equal chance of being selected. In this context, the 67 individuals represent a subset of PT. Tirta Investama's target audience or relevant stakeholders. The objective is to obtain a diverse and representative sample that accurately mirrors the larger population's characteristics and opinions. The article employs the Statistical Package for the Social Sciences (SPSS) to analyze the collected data. SPSS is a widely used software for statistical analysis, providing tools for data manipulation, descriptive statistics, and advanced analytical techniques. Using SPSS enables researchers to uncover patterns, relationships, and trends within the dataset derived from the random sample. This sophisticated analysis aims to extract meaningful insights into the effectiveness of AI-based marketing strategies at PT. Tirta Investama. The research process involves administering surveys or collecting relevant data from the 67 randomly selected participants, incorporating questions or metrics aligned with the key variables related to personalized marketing, market data analysis, and campaign automation. Subsequently, the

gathered data undergoes thorough statistical analysis using SPSS, allowing researchers to conclude the impact of AI-driven marketing strategies on factors such as sales conversion, operational efficiency, and brand consistency. This methodological approach ensures a robust and systematic investigation into the specific outcomes of AI integration at PT. Tirta Investama contributes valuable insights to the broader discourse on the efficacy of AI in contemporary marketing strategies.

Result and Discussion

Multiple regression analysis is used to predict the value of the dependent variable on the independent variable, as shown in Table 1 below.

Table 1. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	10.23	3.45	
1 (X1)	0.87	0.12	0.28
(X2)	1.45	0.23	0.42
(X3)	0.92	0.15	0.36
FSquare	78.21		
RSquare	0.68		

The constant term in the multiple linear regression analysis serves as the regression equation's intercept; in this case, it is 10.23 with a standard error of 3.45. The coefficient for "Personalize Marketing with AI Technology (X1)" is 0.87 (B), indicating that for each unit increase in X1, there is an expected increase of 0.87 units in the dependent variable while holding other variables constant. The standard error for this coefficient is 0.12. The standardized coefficient (Beta) for X1 is 0.28, suggesting its moderate influence in predicting the dependent variable. Similarly, "AI-Based Market Data Analysis (X2)" exhibits a coefficient of 1.45 with a standard error of 0.23 and a Beta of 0.42, implying a more substantial impact. The "Marketing Campaign Automation (X3)" coefficient is 0.92 with a standard error of 0.15 and a Beta of 0.36. The overall model fit, as indicated by the F-square (78.21) and R-square (0.68), suggests that the included variables collectively contribute to explaining a substantial proportion of the variance in the dependent variable, underscoring the effectiveness of the model in capturing and predicting the relationship between the variables under consideration.

The multiple linear regression analysis reveals insightful findings for the variable "Personalize Marketing with AI Technology (X1)." The coefficient (B) of 0.87 signifies that, for each unit increase in personalized marketing with AI technology, there is an expected increase of 0.87 units in the dependent variable. The corresponding standard error of 0.12 indicates the precision of this estimate. The standardized coefficient (Beta) of 0.28 emphasizes the moderate influence of X1 on predicting the dependent variable. This suggests that the degree to which marketing strategies are personalized using AI technology contributes significantly, albeit moderately, to the overall predictive power of the model. The results underscore the importance of personalized marketing in the context of AI technology, affirming its role as a noteworthy factor in explaining variations in the dependent variable within the regression model.

The regression analysis for "AI-Based Market Data Analysis (X2)" provides valuable insights into its impact on the dependent variable. The coefficient (B) of 1.45 indicates that there is an expected increase of 1.45 units in the dependent variable for every unit increase in AI-based market data analysis. The corresponding standard error of 0.23 reflects the precision of this estimate. The substantial standardized coefficient (Beta) of 0.42 underscores the relatively strong influence of X2 in predicting the dependent variable. This suggests that the utilization of AI-based market data analysis significantly contributes to the overall predictive power of the model, emphasizing the importance of leveraging advanced analytical tools in deciphering market dynamics. The findings highlight the crucial role played by AI-driven data analysis in influencing the dependent variable within the context of the regression model, underscoring its potential as a key determinant in shaping outcomes.

The regression analysis for "Marketing Campaign Automation (X3)" reveals noteworthy insights into its influence on the dependent variable. With a coefficient (B) of 0.92, the analysis suggests that for each unit increase in marketing campaign automation, there is an expected increase of 0.92 units in the dependent variable. The accompanying standard error of 0.15 measures the precision of this estimate. The substantial standardized coefficient (Beta) of 0.36 underscores the moderate yet meaningful impact of X3 in predicting the dependent variable. This implies that the integration of marketing campaign automation plays a significant role in enhancing the overall predictive power of the model. The results highlight the importance of automating marketing campaigns as a factor contributing to the variability in the dependent variable within the regression model, emphasizing its role in driving positive outcomes and efficiency gains in the marketing domain.

The F-square value of 78.21 derived from the multiple linear regression analysis is a critical indicator of the overall model fit. This statistic assesses whether the included independent variables collectively contribute significantly to explaining the variance in the dependent variable. In this context, the substantial F-square value suggests that the combined effect of the variables, including "Personalize Marketing with AI Technology (X1)," "AI-Based Market Data Analysis (X2)," and "Marketing Campaign Automation (X3)," significantly influences the dependent variable. A high F-square value, such as 78.21, implies that the overall model is statistically significant, providing evidence that, as a set, the independent variables have a considerable impact on the dependent variable. This robust model fit underscores the effectiveness of the regression model in capturing the relationships and variations within the data, reinforcing the reliability of the conclusions drawn from the analysis.

The R-square value of 0.68 in the multiple linear regression analysis is a critical measure of the proportion of variance in the dependent variable explained by the included independent variables. In this context, the R-square value of 0.68 indicates that approximately 68% of the variability in the dependent variable is accounted for by the combined influence of "Personalize Marketing with AI Technology (X1)," "AI-Based Market Data Analysis (X2)," and "Marketing Campaign Automation (X3)." This suggests a relatively high level of explanatory power, emphasizing that the incorporated variables contribute significantly to understanding and predicting the outcomes of the dependent variable. A robust R-square value of 0.68 implies a

substantial coherence between the chosen independent variables and the observed variations in the dependent variable, reaffirming the model's ability to capture and explain the underlying relationships in the data effectively.

Conclusion and Recommendation

In conclusion, the multiple linear regression analysis of AI-based marketing strategies at PT. Tirta Investama provides valuable insights into the factors influencing the dependent variable. "Personalize Marketing with AI Technology (X1)," "AI-Based Market Data Analysis (X2)," and "Marketing Campaign Automation (X3)" collectively contribute to the model's effectiveness in explaining variations in the dependent variable. Personalized marketing with AI technology, AI-based market data analysis, and marketing campaign automation exhibit positive coefficients, signifying their positive impacts on the dependent variable. The substantial F-square value of 78.21 indicates the model's overall statistical significance, underscoring the variables' collective influence. Moreover, the R-square value of 0.68 highlights the model's high explanatory power, suggesting that the selected independent variables account for approximately 68% of the dependent variable in variability. These findings collectively affirm the importance of AI-driven strategies in influencing and predicting outcomes in the PT marketing context. Tirta Investama. The study contributes to a nuanced understanding of the interplay between AI-based marketing components, providing a foundation for informed decision-making and strategic enhancements within the company's marketing initiatives.

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