

# THE EFFECT OF USING ARTIFICIAL INTELLIGENCE ON EMAIL BLAST PERSONALIZATION ON MARKETING EFFECTIVENESS AT PT. MAKASSAR MEGAPRIMA

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## Abstract

This study aims to analyze the effect of using AI on email blast personalization, analyze the effect of AI on marketing effectiveness at PT Makassar Megaprima, and analyze the effect of email personalization on marketing effectiveness at PT Makassar Megaprima. This research uses a quantitative approach with the population and samples are customers of PT Makassar Megaprima who are registered in the company's email database. Data analysis using multiple linear regression analysis. The results found that the use of AI has a positive and significant effect on email blast personalization. Every customer of PT Makassar Megaprima personalizes their email to use AI in their marketing activities. The use of AI has a positive and significant effect on marketing effectiveness. Companies to streamline marketing activities must use AI that is able to process and analyze large amounts of data quickly and accurately. Personalization of email blasts has a positive and significant effect on marketing effectiveness at PT Makassar Megaprima. Personalized email blasts are an important marketing strategy for companies because they can increase open and click rates, increase engagement, and increase customer loyalty.

**Keywords:** Artificial Intelligence (AI), Email Blast Personalization and Marketing Effectiveness.

## INTRODUCTION

In today's digital era, marketing strategies have evolved rapidly along with technological advances. One approach that is widely used by companies to increase marketing effectiveness is email blasts. However, along with the high volume of emails received by consumers every day, the effectiveness of email blasts decreases if not accompanied by relevant and timely personalization. Therefore, the use of Artificial Intelligence (AI) in email blast personalization emerges as a promising solution to improve marketing campaign performance (Maharani, 2022).

Email blast is a digital marketing method used to send messages in bulk to a large number of subscribers via email. This technique is often utilized to disseminate promotions, product offers, or other important information to an audience in a short period of time. One of the main advantages of email blast is its ability to reach thousands to millions of customers at a relatively low cost (H. Kim and J.-Y. Yoo, 2021). However, with the increasing number of emails received by consumers, the relevance and personalization of messages are crucial to maintaining the effectiveness of this strategy. This is where the role of Artificial Intelligence (AI) becomes very important (Bleier et al., 2018). AI allows companies to collect and analyze customer data in more depth, thus being able to send more relevant messages to customers based on their preferences, behavior, and interests (Taufik et al., 2022). At PT Makassar Megaprima, the effort to utilize AI in email blast personalization aims to improve marketing effectiveness, both in terms of customer engagement (such as open rate and click-through rate) and sales conversion

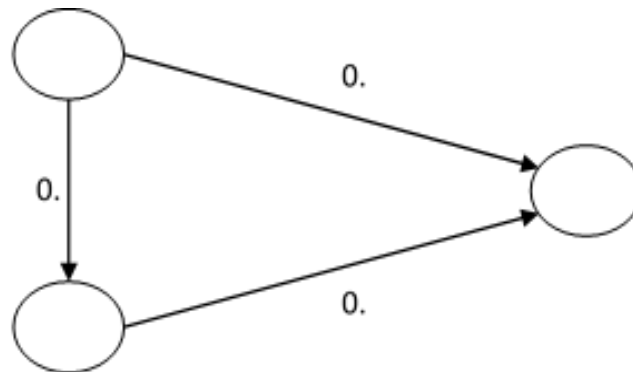
(Li, 2023). However, the application of AI technology in marketing is not always easy and successful, as various factors can affect its success. For example, the quality of customer data, the algorithms used, as well as the personalization strategies implemented can have a significant impact on campaign results (Chourasia et al., 2022). Thus, this research is important to answer key questions regarding the influence of AI in email blast personalization, the ability of AI to increase customer engagement and conversion, and the factors that influence the success of AI implementation in marketing strategy at PT Makassar Megaprima. This research is an independent research of Dr. Eng. Wilem Musu, S.Kom., M.T., and Ir. Irsal, M.T. which will be carried out by students as thesis research with the output of publications in National and International journals.

### **Implementation Method**

This study uses a quantitative approach to measure the effect of AI on marketing effectiveness. Data was obtained from the results of personalized email blasts using AI at PT Makassar Megaprima. The population is the customers of PT Makassar Megaprima who are registered in the company's email database. Samples will be taken from a number of customers who receive email blasts both with AI-based personalization and without personalization (control group). Data collection is done by analyzing the results of email blast campaigns that have been sent by PT Makassar Megaprima. The data collected includes open rate, clickthrough rate, conversion rate, and feedback from customers. Interviews with the marketing team of PT Makassar Megaprima to get information about the implementation of AI in email personalization. Data analysis techniques in this case where the data will be analyzed using statistical methods to see significant differences between email blast campaigns that are personalized with AI and those that are not. Regression analysis can be used to determine the effect of the independent variable (AI in personalization) on the dependent variable (marketing effectiveness).

### **RESULTS AND DISCUSSION**

To analyze the data obtained from the results of research in the field, qualitative and quantitative analysis is used. Quantitative analysis is used to prove the hypothesis proposed using multiple linear regression analysis models, while qualitative analysis is used to examine the proof of quantitative analysis. This proof is intended to test the variation of the regression model used in explaining the independent variable (X) on the dependent variable (Y) by testing the meaningfulness of the regression coefficient. The results of the calculation using the full regression model (Full Model Regression) obtained by the regression coefficient value of the effect of using AI on email blast personalization on marketing effectiveness at PT Makassar Megaprima. Hypothesis testing is done through the t-test to test the meaningfulness or meaningfulness of the partial regression coefficient. Testing through the t-test is by comparing the count with the table at the real level  $\alpha = 0.05$ . The t-test has a significant effect if the count is greater than the  $t_{table}$  ( $t_{count} > t_{table}$ ) or the probability of error is less than 5% ( $p < 0.05$ ). The following is shown in the figure below:



**Figure 1: Regression Equation**

The regression equation is shown as follows:

$$Y = 0.779X_1 + 0.715X_2 + e_i$$

$$X_2 = 0.614X_1 + e_i$$

Based on the figure and equation above, it can be explained that the relationship between X1 and X2 from a beta value of 0.641, X1 to Y with a beta value of 0.779, and X2 to Y with a beta value of 0.715. More details are described in the results of hypothesis testing as follows:

### Hypothesis Testing 1

The first hypothesis is “there is an effect of using AI on email blast personalization”. The results of the regression analysis show that there is an effect of using AI as variable X1 on email blast personalization as variable X2. This is evidenced by the B coefficient value (unstandardized coefficient) of 0.796 and the beta coefficient value (standardized coefficient) of 0.614. To see the effect of variable X1 partially can be seen from the  $t_{count}$  value = 3.538 which is compared with the  $t_{table}$  value = 1.7613, then the count is greater than the  $t_{table}$  ( $3.538 > 1.7613$ ), with a significant level of 0.002 smaller than the  $p$ -value = 0.05. This means that the variable use of AI has a positive and significant effect on email blast personalization.

Furthermore, the results of the regression calculation for the R value (correlation coefficient) to see the simultaneous effect and the  $R^2$  value (coefficient of determination) to see the partial effect of the variables studied. It is known that the correlation coefficient value ( $R$ ) = 0.814 means that the AI usage variable has an influence on the email blast personalization variable, after being presented, the result is 81.4%, and the remaining 18.6% is influenced by other variables not examined. The magnitude of the influence of the variable use of AI (X1) can be seen from the magnitude of the coefficient of determination ( $R^2$ ). The coefficient of determination according to the results of linear regression calculations is  $R^2 = 0.662$  or 66.2%. This shows that the variable use of AI affects the blast email personalization variable by 66.2%, while the remaining 33.8% is influenced by other variables that cannot be explained in the model. The results of the F statistical test or simultaneous significance test by comparing  $F_{count}$  with the  $F_{table}$  value at the real level  $\alpha = 0.05$ . The F test has a significant effect if the  $F_{count}$  is greater than  $F_{table}$  or the probability of error is less than 5% ( $P < 0.05$ ). From the results of the

calculation of the Full Model Regression analysis with the help of the SPSS program,  $F_{hitung}$  was obtained at 8.088 with a probability level of 0.004 (significant). While  $F_{table}$  is 4.9646, thus the  $F_{count}$  is greater than  $F_{table}$  ( $8.088 > 4.9646$ ) and also the probability is much smaller than 0.05, meaning that the use of AI affects the personalization of email blasts for the marketing activities of the company PT Makassar Megaprima.

### Hypothesis 2 Testing

The second hypothesis is “there is an effect of using AI on marketing effectiveness at PT Makassar Megaprima”. The results of the regression analysis show that there is an effect of the use of AI as the independent variable X1 on marketing effectiveness as the dependent variable Y. This is evidenced by the B coefficient value (unstandardized coefficient) of 0.887 and the beta coefficient value (standardized coefficient) of 0.779. To see the effect of the independent variable X1 partially can be seen from the  $t_{count}$  value = 6.042 which is compared with the  $t_{table}$  value = 1.7613, then the count is greater than the  $t_{table}$  ( $6.042 > 1.7613$ ), with a significant level of 0.000 smaller than the p-value = 0.05. This means that the independent variable using AI (X1) has a positive and significant effect on marketing effectiveness at PT Makassar Megaprima.

Furthermore, the results of the regression calculation for the R value (correlation coefficient) to see the simultaneous effect and the  $R^2$  value (coefficient of determination) to see the partial effect of the variables studied. It is known that the correlation coefficient (R) = 0.948 means that the independent variable of using AI has an influence on the dependent variable of marketing effectiveness, after being presented, the result is 94.8%, and the remaining 5.2% is influenced by other variables not studied. The magnitude of the influence of the independent variable ( $X^1$ ) can be seen from the magnitude of the coefficient of determination ( $R^2$ ). The coefficient of determination according to the results of linear regression calculations is  $R^2 = 0.899$  or 89.9%. This shows that the independent variable of using AI affects the dependent variable by 89.9%, while the remaining 10.1% is influenced by other variables that cannot be explained in the model. The results of the F statistical test or simultaneous significance test by comparing  $F_{count}$  with the  $F_{table}$  value at the real level  $\alpha = 0.05$ . The F test has a significant effect if the  $F_{count}$  is greater than  $F_{table}$  or the probability of error is less than 5% ( $P < 0.05$ ). From the results of the calculation of the Full Model Regression analysis with the help of the SPSS program, the  $F_{count}$  is 36,502 with a probability level of 0.000 (significant). While  $F_{table}$  is 4.9646, the  $F_{count}$  is greater than  $F_{table}$  ( $36.502 > 4.9646$ ), and also the probability is much smaller than 0.05, meaning that the use of AI affects marketing effectiveness at PT Makassar Megaprima.

### Hypothesis Testing 3

The third hypothesis is “there is an effect of blast email personalization on marketing effectiveness at PT Makassar Megaprima”. The results of the regression analysis show that there is an effect of blast email personalization as the independent variable  $X^2$  on marketing effectiveness as the dependent variable Y. This is evidenced by the B coefficient value (unstandardized coefficient) of 0.826 and the beta coefficient value (standardized coefficient)

of 0.715. To see the effect of the independent variable  $X^2$  partially can be seen from the  $t_{count}$  value = 3.852 which is compared with the  $t_{table}$  value = 1.7613, then the count is greater than the  $t_{table}$  ( $3.852 > 1.7613$ ), with a significant level of 0.000 smaller than the  $p$ -value = 0.05. This means that the independent variable email blast personalization ( $X^2$ ) has a positive and significant effect on marketing effectiveness at PT Makassar Megaprima. Furthermore, the results of the regression calculation for the  $R$  value (correlation coefficient) to see the simultaneous effect and the  $R^2$  value (coefficient of determination) to see the partial effect of the variables studied. It is known that the correlation coefficient value ( $R$ ) = 0.915 means that the independent variable personalization of customer email blasts has an influence on the dependent variable marketing effectiveness, after being presented, the result is 91.5%, and the remaining 8.5% is influenced by other variables not studied. The magnitude of the influence of the independent variable ( $X^1$ ) can be seen from the magnitude of the coefficient of determination ( $R^2$ ). The coefficient of determination according to the results of linear regression calculations is  $R^2 = 0.837$  or 83.7%. This shows that the independent variable of customer email blast personalization affects the dependent variable by 83.7%, while the remaining 16.3% is influenced by other variables that cannot be explained in the model.

Furthermore, the results of the  $F$  statistical test or simultaneous significance test by comparing the  $F_{count}$  with the table value at the real level  $\alpha = 0.05$ . The  $F$  test has a significant effect if the  $F_{count}$  is greater than the table or the probability of error is less than 5% ( $P < 0.05$ ). From the results of the calculation of the *Full Model Regression* analysis with the help of the SPSS program, the  $F_{count}$  is 14,841 with a probability level of 0.000 (significant). While  $F_{table}$  is 4.9646, thus the  $F_{count}$  is greater than  $F_{table}$  ( $14.841 > 4.9646$ ) and also the probability is much smaller than 0.05, meaning that blast email personalization has an effect on marketing effectiveness. The calculation results also show the dominant variable based on the regression coefficient  $B$  value of 0.887, namely the use of AI ( $X^1$ ). This means that the use of AI is a concern for the company to socialize blast email personalization which affects marketing effectiveness.

## CONCLUSIONS

The conclusion of this study based on the results of the study found that the use of AI has a positive and significant effect on blast email personalization. This means that every customer of the company PT Makassar Megaprima must personalize their email to use AI in their marketing activities. Furthermore, the use of AI has a positive and significant effect on marketing effectiveness. This means that the company PT Makassar Megaprima to streamline marketing activities must use AI. Because AI is able to process and analyze large amounts of data quickly and accurately. This helps marketers to understand consumer behavior, market trends, and campaign effectiveness. With the resulting insights, companies can make better and more strategic decisions. Blast email personalization has a positive and significant effect on marketing effectiveness at PT Makassar Megaprima. This means that email blast personalization is an important marketing strategy for companies because it can increase open and click rates, increase engagement, and increase customer loyalty. Personalization of email blasts for the use of AI is the key to consistently achieving open and click rates in streamlining the company's marketing activities.

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