Evaluating Effective Social Media Marketing with Artificial Intelligence Using the AIDA Model Approach

Putri Ariatna Alia[1], Warna Agung Cahyono[2], Mohamad Shodikin[3], Jihan Salsabila Meisyarani[4],
Rosi Rijal Sani[5], Rony Kriswibowo [6]
Department of Software Engineering[1,2,3,4,5], Department of Information System[6]
Universitas Anwar Medika[1,2,3,4,5,6]
Sidoarjo, Indonesia
E-mail: putriariatna@gmail.com[1], warnaagung@gmail.com[2], m.shodikin@uam.ac.id[3], jihan062004@gmail.com[4],
rosi.rijal@uam.ac.id[5], rony.kriswibowo@uam.ac.id[6]

Abstract— The rapid growth of information and communication technology, especially social media, has significantly changed the marketing landscape. In the face of this challenge, companies are increasingly adopting marketing strategies through social media to reach their intended target markets. This research aims to analyze the effectiveness of Social Media Marketing by utilizing Artificial Intelligence, especially ChattGPT and applying the AIDA Model approach (Awareness, Interest, Desire, Action). This research methodology uses descriptive qualitative methods with data collection through virtual ethnography and interviews from the Babelubozz online store using the Instagram platform: @grosirhijabtermurahsidoarjo. Artificial intelligence algorithms to analyze interaction patterns and user responses. The AIDA (Awareness, Interest, Desire, Action) model. used as a basis for measuring the stages of consumer awareness, interest, desire, and action in the context of marketing through social media. The results of this analysis provide an in-depth understanding of how companies can improve the effectiveness of their marketing campaigns on social media by optimizing each stage of the AIDA Model. Therefore, the marketing and promotional content generated by ChatGPT is able to increase the effectiveness of social media marketing.

Keywords*: Social Media, Artificial Intellegence, Marketing, Algorithms, Effectiveness*

I. INTRODUCTION

Social media has now become one of the main aspects of marketing and business communication [1].The rapid growth of information technology has changed consumer behavior, forcing companies to innovate and adapt their marketing strategies to stay relevant and effective[2]. One strategy that is increasingly gaining attention is Social Media Marketing (SMM), where companies seek to utilize social media platforms to interact with their audience[3]. The Attention, Interest, Desire, Action (AIDA) Model AIDA stands for Attention, Interest, Desire, and Action, which explains the stages of the consumer response process in decision making[4]. The AIDA concept is often used in product marketing strategies because of its simple principles The AIDA model is a hierarchy of effects framework in marketing and advertising[5]. It describes the consumer journey from product or service awareness to purchase[6]. The AIDA concept helps understand the way advertisements grab consumers' attention and encourage them to buy. In essence, the AIDA model implies that advertising messages must be successful in some aspect to encourage consumer purchases[7].

According to HotSuite We Are Social (2021), as of January 2021, internet users in Indonesia reached 202.6 million people, an increase of 27 million people (around 16%) compared to 2020, with an internet penetration rate of 73.7%. Social media users reached about 170 million people, or about 61.8% of the population, with Instagram users reaching about 86.6% of the total population. Medan City is also active in internet and social media usage, with more than 2.52 million residents (about 82% of the city's total population) having internet access. This creates a huge opportunity in the field of digital marketing[7]. The success of marketing through social media depends not only on the creativity of the messages delivered, but also on the ability to understand and respond to changes in consumer behavior. In this context, artificial intelligence is emerging as a tool capable of providing deep insights into consumer preferences and needs[5].

One of ChatGPT's main roles in social media marketing is in the creation of engaging content[8]. The model can be used to generate creative copy, illustrate brand stories, and structure captions or other written content to increase user engagement on social media platforms[9]. The use of ChatGPT in social media marketing can be extended to responsiveness to users. ChatGPT-based chatbots can provide instant responses to user queries, provide customer support, and enhance interactions in real-time, creating a better user experience. ChatGPT can also be used to analyze user sentiment on social media. By applying natural language processing techniques, this model can help in understanding user reactions and opinions towards products or brands.This analysis can be the basis for developing more effective and responsive content strategies[10].

One model that has proven effective in designing marketing campaigns is the AIDA Model (Awareness, Interest, Desire, Action). This model provides a structured framework for understanding how consumers go through the journey from being aware of a product or service to finally taking a purchase action. This research aims to combine artificial intelligence and the AIDA Model in analyzing the effectiveness of Social Media Marketing. By better understanding consumers' interaction patterns on social media and engaging them through the AIDA stages, companies can improve the efficiency of their marketing campaigns and optimize their impact[11].

Through this approach, this research seeks to answer the key question of how the utilization of artificial intelligence can improve the understanding of consumers' awareness, interest, desire, and action levels on social media. The implications of this research are not only limited to theoretical understanding, but also explore the practical potential to be applied in actual marketing strategies. By analyzing the effectiveness of Social Media Marketing using artificial intelligence and the AIDA Model, this research is expected to contribute to the development of more sophisticated marketing strategies that are relevant to the changing market dynamics[12] .

II. RESEARCH METHODS

2.1 Literature Study and Variable Identification.
   Review literature related to AI in social media marketing, the AIDA Model, and analyze marketing effectiveness with Instagram: grosirhijabsidoarjotermurah. Identify variables that will be measured in terms of views story instagram @grosirhijabsidoarjotermurah.

2.2 Data Collection.
   Select a relevant social media platform for the research i.e. Instagram. Use social media data analysis tools and AI to collect data, i.e. the number of instastory viewers.

2.3 Application of the AIDA Model.
   Apply the AIDA Model to categorize data into Awareness, Interest, Desire, and Action stages. Identify content or campaigns that represent each stage of the AIDA Model. The selection of the AIDA (Attention, Interest, Desire, Action) model in testing the effectiveness of social media marketing has several reasons First, a sequential approach is provided, encompassing the stages of AIDA which reflect the natural consumer journey from initial product recognition to the decision to make a purchase..

Secondly social media is often used to build awareness, create interest and stimulate desire. AIDA organally connects with these functions on social media platforms. AIDA reflects consumer psychology by understanding that purchasing decisions often involve a series of feeling and thinking stages. This helps marketers to design campaigns that understand the complexity of consumer decisions.

2.4 Artificial Intelligence Implementation
   Use artificial intelligence algorithms to find solutions to improve social media performance. This can involve using Natural Language Processing (NLP) to understand user text and Computer Vision to analyze words by developing predictive models to estimate user reactions or responses based on historical data.

   This chapter lays out specific instructions for writing the full text, including the article section, the systematic chapter and its contents. These specific instructions will guide the entire editorial process of the article as shown in figure 2.

III.   RESULT AND ANALYSIS

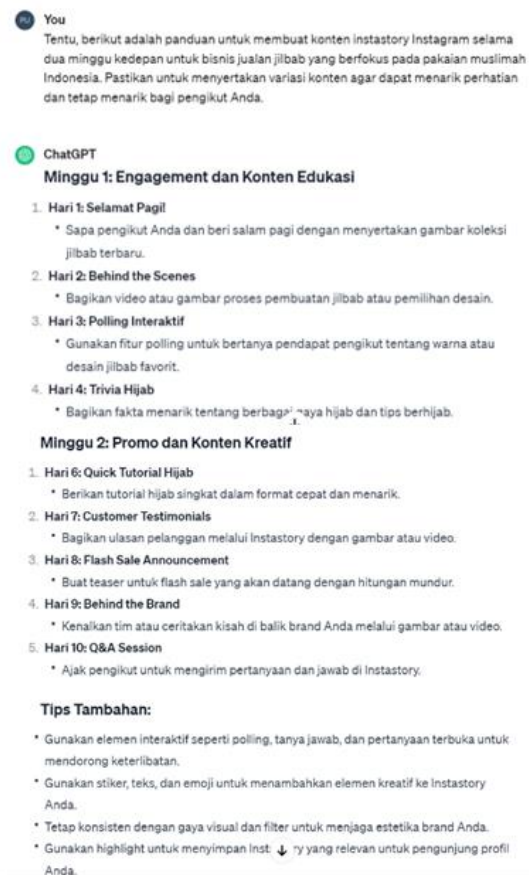Instagram performance implementation with the help of ChatGPT:

Figure 1. Example of Artificial Intellegence with ChatGPT Utilization

In picture one, it can be seen that entrepreneurs are looking for ways to optimize the number of story viewers on Instagram by using one of the artificial intelligence applications, namely chatGPT.
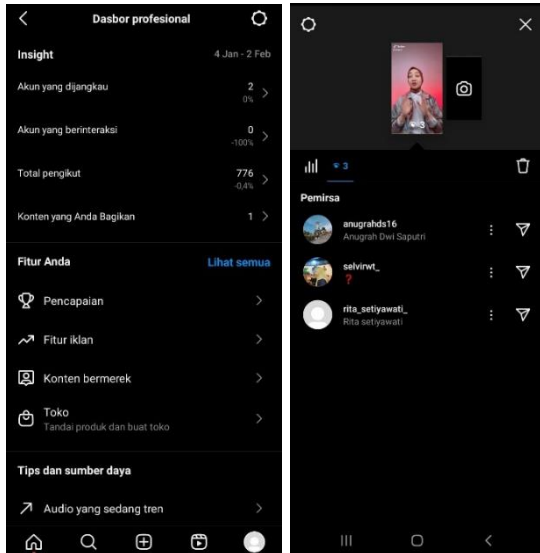

Figure 2. Instagram Performance Before Optimizing from Artificial Intelligence

Figure 2 shows the performance of an account that already has a product, but the way to increase performance is still organic, namely by repeat orders from customers who have purchased the product. in figure 2 shows the story audience, reach, interactions, and new followers. Identify content or campaigns that represent each stage of the AIDA Model.

3.1 Attention
Companies can utilize ChatGPT to help generate innovative ideas that reinforce the characteristics of the product to be purchased. To measure user attention, companies can monitor the number of people who see the ad or the number of ad views that occur.

3.2 Interest
The use of ChatGPT can be an effective tool for companies that want to increase consumer interest in the products or services offered. Measurement of customer interest can be done by looking at the number of people who like the ad, save the ad, or forward the ad to others.

3.3 Desire
The use of ChatGPT can be very effective in arousing consumer interest. The way to measure user interest is to see how many people access the Instagram profile or explore more information about the product or service presented.

3.4 Action
The action stage is very important in the marketing process of the AIDA concept. This stage is the result of the previous three stages and involves concrete activities to prove the effectiveness of social media marketing. Measurement of user action is done
Each indicator of social media marketing effectiveness (Attention, Interest, Desire, and Action) was analyzed using percentages. were analyzed using percentages to assess their effectiveness in each aspect. The results of This analysis is used to classify the level from ineffective to effective.

Table 1. Table Of Interpretation Implementation On Artificial Intellegence

PRESENTATION SCORE (%)	INTERPRETATION
90 - 100	Effective
70 - 80	Just Effective
40 - 60	Less Effective
0 - 30	Not Effective

Table 1 above is a very useful tool that displays a series of indicators used to measure social media marketing effectiveness. indicators used to measure the effectiveness of social media marketing. Instagram Posts with the AIDA Concept.
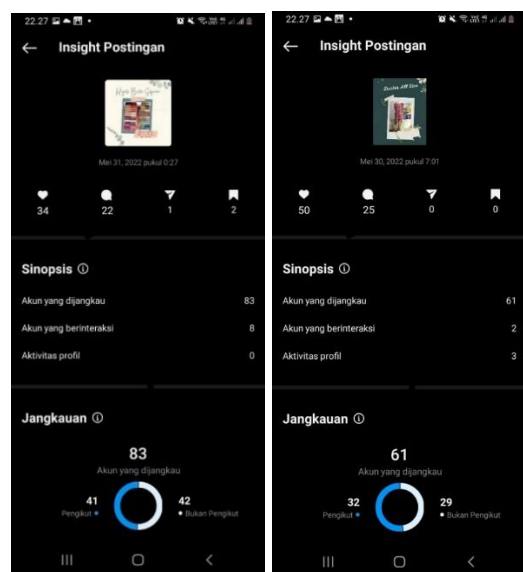

Figure 3. Instagram Performance After Optimizing from Artificial Intelligence

Advertising messages require to attract customers' attention without being influenced by the form or media channel used.

Table 2. Number of Users Who Viewed Posts

No	Figure	Range
1	Figure 1	2
2	Figure 2	61

In Table 2, figure 3 of the Instagram post has an increase of hundreds of accounts compared to figure 2. accounts which is much higher compared to figure 2, This shows that the content marketing generated by AI Chat GPT on the Instagram platform is very effective. This means that ChatGPT can understand the needs of sellers in creating attention-grabbing content. According to recommendations from artificial intelligence, content intended to attract customer attention should be crafted to captivate the audience, thereby enhancing customer interest in engaging with Instagram feed posts.

Table 3. Interacted of Account

No	Figure	Accounts that interacted
1	Figure 1	0
2	Figure 2	8

In Table 3, it can be seen that users who show high interest in marketing content are reflected in Figure 3. These users can be identified through actions such as giving "like," saving, and sharing marketing content with other Instagram users. This shows that AI Chat GPT can increase its effectiveness in creating interest in its content. Assessing user interest can be done by monitoring the number of people who access your Instagram account or view the products or services offered. This can be used as an indicator to measure user desire. Consumers purchase products or order services because they have a desire to do so. User action is measured through interactions or visits to location after seeing advertisements for products and services. Seeing advertisements for products and services. This is evidenced by recorded customer conversations responding to marketing content. Generated by GPT's AI Chat

Figure 4. Result after using advice from AI

In the end, once customers become interested in the content we have created, customers will look for ways to buy these items at a low price. To ensure the quality of the goods, customers often verify the quality before purchasing. Many will visit the store in person or inquire directly through Instagram's direct message feature, as shown in Figure 4.. To ensure the quality of the goods, customers often verify the quality before purchasing. Many will visit the store in person or inquire directly through Instagram's direct message feature, as shown in Figure 4. The buying and selling process occurs in the store directly.

Table 4. Social Media Marketing Effectiveness Analysis Results

Indicator	Fig 1	Fig 2	Score (%)	Interpretation
Attention	2	61	2950	Effective
Interest	0	8	80	Effective
Desire	0	30	30	Effective
Action	Fig 4			Effective

In the explanation and analysis of the data presented by the researcher, it can be concluded that marketing and promotional content generated by ChatGPT has been shown to increase the effectiveness of Social Media Marketing.

VI. CONCLUSION

Based on the analysis of the effectiveness of social media marketing using artificial intelligence with the AIDA model approach, several conclusions can be drawn. Artificial intelligence was used to improve audience segmentation capabilities, so that the content presented can be more targeted. The Selection of creative and attractive social media marketing strategies increased user attention. The use of artificial intelligence in user behavior analysis could help identify their preferences and interests. Content tailored to users' interests had greater potential to maintain their attention and increased their interest in products or services. Combining the AIDA model approach with artificial intelligence had the potential way' to improve the overall effectiveness of social media marketing. This integration allowed for more focused and personalized messaging, aiding the conversion process from the attention to action phase. The implementation of artificial intelligence with the AIDA model approach can improve social media marketing effectiveness by aligning strategies based on the stages of the consumer journey. By understanding and tailoring content according to user needs and preferences, companies can maximize the impact of their marketing campaigns.

THANK-YOU NOTE

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