

OPTIMIZING GREEN DIGITAL STARTUP CAMPAIGN USING META ADS THROUGH ARTIFICIAL INTELLIGENCE APPROACH

Almasari Aksenta^{1*}, Naila Faradila²

^{1,2}Samarinda State Polytechnic (Indonesia)

*) email: a.aksenta@polnes.ac.id

Abstract

The use of digital technology has become a trend among business owners. Startups strive to have application technology that simplifies all operational activities. The Blapak Samarinda application, a type of e-commerce created to facilitate marketing activities for the sale and purchase of used goods, is incomplete without promotion through social media. Social media, as a platform that also supports marketing activities within the scope of environmentally friendly technology, plays a significant role, especially in building markets and increasing customers. This study aims to optimize advertising for the Blapak Samarinda application using the Meta Ads feature through an Artificial Intelligence (AI) technology approach. This article also includes theories of social media marketing, artificial intelligence, meta adsense, and content performance analysis. This study used a qualitative method with a literature review plus implementation stages in carrying out digital advertising activities for the Blapak Samarinda startup using the Meta Ads feature and an AI approach. The social media used by Meta focuses on Instagram. The AI tools used are Canva AI, Meta AI, and Gemini AI. Advertising activity is also measured using the Content Performance Analysis method through Meta Insight. The findings in this article are how to optimize advertising using Meta social media for Blapak Samarinda startup business products supported by Artificial Intelligence technology and measuring advertising activities of content that has been advertised has a much greater number of engagement values than before the content was advertised.

Keywords: Artificial Intelligence, Digital Startup, Green Technology, Meta Ads, Social Media Marketing

1. INTRODUCTION

Current business developments are inextricably linked to technological trends. Internet-based technology is significantly beneficial in every line of business. Companies are creating digital technologies to streamline their processes. Digital technology makes everyday activities easier for people. Many startups are addressing community needs by creating applications, such as websites and other services. (Aksenta et al, 2024). A green startup is a pioneering company whose products and services have a positive impact on the environment and contribute to a green economy. Three characteristics that define a green startup are product, entrepreneurship, and strategy. Researchers recommend that universities conduct more research on the implementation of green startup businesses in Indonesia. The government also recommends developing and expanding green startups (Sadma, 2021). Social media is a prominently effective channel for green marketing. Green marketing is crucial for aligning marketing strategies with a company's ecological responsibilities. Green marketing also serves as information that educates consumers about the benefits of products for their environmental impact. Green marketing posts

on social media also encourage audiences to be environmentally conscious in a positive way and motivate them to participate in spreading information about environmentally friendly products. (Nabivi, 2025).

Environmentally friendly technological innovations promoted on social media can provide an ecosystem that also supports the development and implementation of green technology (Abror et al, 2025). Technology startups in Indonesia are embracing social media as a key marketing strategy. Personal, real-time interactions connect customers and enhance brand awareness, creating a positive customer experience. Indonesian startups are actively using social media to create closer relationships with customers through personalized interactions and engaging content (Surjono, 2024). Startups possessing comprehensive technological knowledge are more capable of selecting and adopting technologies that align with their business strategies, particularly within the context of social media marketing. Proficiency and expertise in utilizing social media marketing provide significant advantages for startup firms. Cost does not constitute a major barrier for startups in adopting social media marketing technologies. Technological compatibility, infrastructure readiness, and organizational knowledge positively influence the adoption of social media marketing. Compatibility refers to the degree to which social media marketing practices align with the existing values, operational practices, and needs of startup organizations. Technological compatibility significantly affects startups' decisions to adopt social media marketing. Startup firms tend to approach investments in social media marketing with an emphasis on long-term benefits and the attainment of competitive advantage. Consequently, startups are motivated to develop markets and expand their customer base. (Ahmed et al., 2025).

Social media is a platform for a business to gain greater credibility and trust, and its users can become influencers in its promotions (Aksenta et al, 2023). Social media and other types of digital advertising are communication channels for maintaining and building relationships with customers. Paid advertising is part of social media platforms, which can also promote products or services and provide a means of interacting with customers and building online groups or communities. (Hartatik dkk., 2023). Advertising features are social media optimization tools, also known as AdSense. AdSense on social media helps marketers gain more visitors, likes, comments, and followers, allowing potential customers to place orders by contacting the marketer directly (Aksenta et al, 2025). The advertising campaign is presented in a more engaging and provocative manner. This makes it more effective in attracting people's attention (Henderson & Theodoridis, 2015). Social media marketing is currently undergoing a renewal, combining several social media platforms into one company group. This social media platform is called Meta. Meta ads are an effective tool for achieving marketing goals. Meta ads are part of a digital marketing strategy to expand audience reach. Meta ads are a paid advertising service platform for social media platforms like Facebook and Instagram. The ads provided have proven to reach

all regions of Indonesia and can target audiences precisely with flexible advertising costs. Personalized ads can include audience groups, ages, and locations. Campaigns on meta ads are more relevant and engaging (Wicaksono et al, 2024). Currently, the use of social media platforms like WhatsApp is also increasing.

The current phenomenon is that many green technology startups are leveraging AI in their businesses. This is an innovation and plays a crucial role in maximizing the positive impact of their businesses (Jorzik et al, 2024). The implementation of AI has a significant positive impact on digital marketing strategies. AI can also significantly impact brand equity and digital marketing effectiveness. Personalized content can increase marketing team efficiency and automate campaign activities (Fathoni & Mohyi, 2025). Through AI, businesses and marketers can understand customer needs. This allows for faster targeting and personalization of large amounts of customer data. AI helps predict customer behavior. Therefore, in social media marketing, AI can also analyze customer engagement patterns. Social media advertising can adapt to customer behavior, improving customer experience and engagement. AI in social media marketing helps optimize campaign activities in real time (Suchanová, 2024). AI in social media plays a crucial role in developing campaign strategies. AI-based campaign strategies mean that marketers are digitally literate, but they are also highly influential in shaping future marketing trends (Bhagyalakshmi & Akila, 2024). Implementing AI in marketing has many advantages, including reducing errors and saving time and labor. AI can collect customer data on search and purchase history, allowing marketers to target and improve customer interactions. AI can focus more on analyzing data for better results because it can make decisions based on the quality and relevance of the data provided (Alammal & Al Mubarak, 2023).

AI optimization in marketing campaigns can be done by examining advertising history and then predicting which content will have a greater impact in terms of theme, type of platform used, and posting time. (Tanaka et al, 2024). AI increases campaign effectiveness with a higher level of personalization in content creation and distribution. This increases consumer engagement. AI in content marketing not only enhances brand effectiveness but also makes the digital marketing landscape more sustainable and inclusive. Marketers can be more creative in creating interactive and relevant content (Spasova & Grujovski, 2025). AI and social media technology are dynamic, reflecting current trends and developments. The effectiveness of AI influences message personalization, targeted content delivery, and building more meaningful consumer relationships. (Bhagyalakshmi & B, 2024). Optimizing artificial intelligence (AI) on social media is a strategic step in creating marketing content. AI can create images or videos for content and generate engaging script structures for content writing (Supradaka et al, 2024).

Utilizing meta ads and AI is no longer an option, but a necessity in marketing, helping to increase the competitiveness of business product sales. AI has been proven to help enhance visual appeal and promotional messages when optimizing social

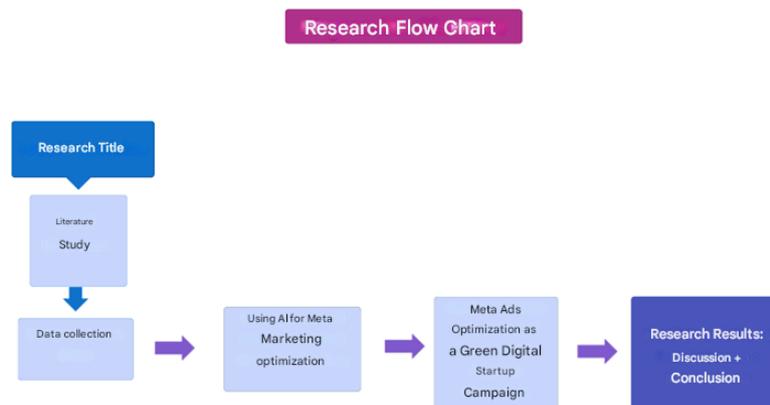
media content. This has the potential to attract consumer attention. Meanwhile, meta ads can reach a broader and more segmented target market (Ashari et al, 2025).

Previous research by Putra & Sastika (2022) provided a literature study on the use of AI models from Google Analytics, Facebook Insights, and Instagram Insights to improve sales performance. Furthermore, research by Widiastuti & Djajalaksana (2022) implemented marketing using social media platforms like IG Ads and Facebook Ads, as well as SEO on web blogs, and then conducted a marketing evaluation by analyzing posted content. Furthermore, research by Saefuddin et al. (2023) analyzed and implemented direct marketing for SMB Telkom using social media ads and the assistance of an AI Chatbot. Finally, research by Singgih & Permatasari (2023) conducted a literature study on the application of AI tools to five e-commerce platforms in Indonesia: Lazada, Shopee, Tokopedia, Bukalapak, and Blibli. There are differences from previous research, some were purely literature studies, but this study adds an implementation or application stage. While previous studies used social media marketing tools or artificial intelligence alone to improve marketing, this study combines these tools and uses case studies of digital products (e-commerce) in general, while this study uses a self-developed digital startup (e-commerce) product.

The purpose of this study is to optimize advertising for the Blapak Samarinda application using the Meta Ads feature through an Artificial Intelligence technology approach. The urgency of this research is that the Blapak Samarinda application, as a green digital startup that was created in previous research, requires implementation in promoting to the surrounding Samarinda community. The promotional tools used are the latest digital technology, namely Meta social media and its AdSense feature to further expand reach. The use of Artificial Intelligence (AI) technology also plays a significant role in helping create this digital marketing stage. The researcher also wants to add research related to the use of the Meta Ads feature plus AI technology that supports marketing activities as a literature study.

2. METHODOLOGY

Figure 1. Research Flowchart



This research method is qualitative. The following research stages are shown in Figure 1 above. In the first stage, the researcher determined the title and then conducted a literature review to support the research. In the next stage, the researcher collected data, developed a content marketing strategy, and analyzed the software needs to support marketing optimization on Meta social media platforms, using AI tools. The fourth stage involved optimizing marketing content using AI tools. The fifth stage included optimizing Meta social media marketing, including utilizing its AdSense feature. The researcher also measured the success of the optimization activities using the Content Performance Analysis method through Meta Insight, leading to the discussion and conclusion of the research.

3. FINDINGS AND DISCUSSION

3.1 Literatures

3.1.1 Social Media Marketing

Social media is an internet-based application that allows for the exchange of information in the form of user-generated content. Social media fosters interaction between a business brand and its customers. Social media offers the potential for long-term relationships between businesses and their consumers. Several interactive features are considered essential for promoting a business's products. Therefore, companies find social media helpful, incorporating it into their marketing mix. Social media not only facilitates interaction but also offers customized purchasing recommendations. Available advertising settings, such as those on YouTube and Facebook, and other platforms, are integral components of social media marketing (Ali et al, 2024). According to DataReportal in 2023, social media usage has reached a global scale, with more than four billion users worldwide. This widespread adoption has encouraged many firms to employ social media marketing as a strategic tool to achieve their marketing objectives. Indonesia represents one of the largest social media markets globally. As of January 2023, the number of social media users in Indonesia reached approximately 167 million, accounting for 60.4% of the country's total population. Moreover, the global number of social media users continues to increase, reaching approximately 4.9 billion users worldwide. Consequently, organizations increasingly recognize social media as a critical marketing channel. In Indonesia alone, social media usage exceeded 167 million users in 2023. Social media marketing refers to the strategic process of creating, distributing, and managing content across social media platforms to stimulate engagement between businesses and their target audiences. Higher levels of engagement enhance the likelihood of content dissemination through user sharing, thereby expanding brand visibility and reach. (Putra & Darmawan, 2025). Social media marketing allows marketers to share stories in a variety of formats, including text, images, videos, and live broadcasts. Live streaming can create opportunities for closer and more responsive business interactions. On social media, businesses can also convey information about their production processes (services), which can create a lasting impression on their audience (Wibowo et al, 2024).

3.1.2 Artificial Intelligence (AI) Generative

Generative AI is a type of AI that creates content such as text, images, video, audio, computer code, or 3D visuals based on a learned method of identifying patterns to create new, original material that shares the same characteristics as the one being imitated. Generative AI makes it possible to create realistic-looking virtual environments. The application of AI as digital imitations, such as digital avatars, has become a source of entertainment in the metaverse. (Mitra, 2023). Generative AI helps automate and enhance creative content production more deeply. Generative AI is generating new strategies, business models, and value in content marketing (Wahid et al, 2025). The functions of generative AI in content marketing include planning, personalization, content creation and reuse, real-time content actions and curation, SEO, and content performance analysis. The positive impact of generative AI is that it is an affordable, relatively fast, easy-to-use, and high-quality tool (Wahid, 2025). AI is a valuable addition to marketing content creation. Business owners can optimize their profile content and services to make them more engaging by leveraging AI technology. In the increasingly competitive digital era, businesses are leveraging AI technology, which offers significant advantages, to achieve their business goals. Using AI applications such as ChatGPT, Gemini AI, Bing Image Creator, Canva AI, Photoroom AI, and Gamma AI can help business owners and marketers find ideas and create engaging marketing content (Muhardono, 2024). AI users use Gemini and Chat GPT to find inspiration for creating promotional texts. The promotional text presented also has a good structure (Kesuma et al, 2025). Gemini, a multimodal artificial intelligence (AI) tool launched on December 6, 2023, is a Google DeepMind AI model equipped with Visual Language Model (VLM) technology. Gemini AI has demonstrated effectiveness in enhancing marketing strategies and supporting decision-making processes in e-commerce contexts. Developed by Google, Gemini AI possesses multimodal capabilities that enable it to process text, audio, image, and video data, thereby improving the quality of user interaction and engagement (Solviana et al, 2025). AI tools are useful in supporting companies' creativity and productivity. AI is a solution for content creators facing time and skill constraints in generating ideas and producing content (Konlan et al, 2025). AI can optimize the creation of personalized content at scale and analyze user behavior, preferences, and demographic data. It also ensures precise customer reach (Cabrilo et al, 2025). AI will continue to advance in content creation by automatically predicting trends and analyzing content patterns. AI helps increase content creation productivity and reach more user engagement (Shaw & Puja Devgun, 2025). AI tools can reduce barriers to content creation. AI in social media content influences the content creator (producer) experience and shapes consumer perceptions (Møller et al, 2025). AI can also help marketers create copywriting. AI generates better copy in less time. This increases the effectiveness of marketing campaigns while reducing other marketing costs. AI can be used to understand target audiences, personalize marketing content for relevance, and help understand consumer behavior and preferences based on data and analysis. AI tools that can segment target audiences include Google Analytics, Facebook Ads Manager, and HubSpot. Overall, AI can help marketers determine the right marketing channels and improve the effectiveness of marketing campaigns (Nirwana et al, 2023). Artificial intelligence in copywriting enables the generation of compelling textual content that attracts attention and enhances user engagement. Generative AI serves as a powerful

tool for managing advertising campaigns, collecting customer behavioral data, and accurately targeting potential customers (Kubovics, 2025).

3.1.3 Meta Ads

Meta is a type of platform that has more than 3.6 billion active users and more than 10 million advertisers globally (Wernerfelt et al, 2022). Meta ads are said to be a booster for pre-planned marketing tools to achieve marketing goals. Nowadays, meta ads are not only available on Facebook but also on Instagram and WhatsApp. Meta ads can help understand customers, build relationships, establish social proof of customer trust, enhance brand awareness, and offer affordable cost control features, as well as tracking functions to determine which content audiences are viewing more (Marliana, 2023). Meta ads are part of Facebook that encourage target customers to interact with the company or promote the product. Ad effectiveness can be measured by click-through rates, purchasing behavior, conversations, and click-through actions. Meta ads make it easier for business owners to campaign for their own products. Some factors that influence Meta advertising include post formats, homepage ads, traffic-driven ads, conversions, and brand reach (Prawira P & Indrawati, 2023). Facebook is no longer the only platform operated by Meta. Instagram and WhatsApp are also part of the company. For the past few years, advertising has also been possible on Instagram through Facebook Ads Manager. Since August 2020, companies have also had the option to advertise on Instagram without linking their accounts to Facebook Ads. In October 2020, it was announced that the messaging service, WhatsApp Messenger, was also part of Meta Group. This allows users to purchase products and learn more about them directly from chats (Lammenett, 2024). Meta Ads has a generative AI function that allows advertisers to find their target audience and save time creating campaign materials, such as text variations, backgrounds, or image extensions. AI can analyze historical advertising activity, and audience reach will increase thanks to this technology (Iankovets & Nikolaiev, 2024). Meta offers advertising options with detailed segmentation. Campaigns through Meta Ads are optimized with ad set customization, budget management, and content refinement. Meta Ads outperforms Google and YouTube. Ads are not only a campaign tool but can also help grow your business and outperform your competitors (Ghosh, 2025).

3.1.4 Content Performance Analysis

Content performance analysis is a data analysis method in social media marketing. This method is used to understand content performance, audience behavior, and optimize marketing strategies. Metrics in content performance analysis include engagement rate, reach, and conversion rate, which are used to measure content effectiveness, identify opportunities for improvement, and optimize social media marketing strategies (Wardhana, 2025).

3.2 Finding and Discussion

This study focused on advertising optimization for a green digital startup, Blapak Apps, through Meta social media platforms. The focus of this study was Instagram. Advertising was conducted through content also created using an Artificial Intelligence (AI) approach. The marketing content created in this study utilized AI tools. The researcher created images, videos, and copywriting text to be used as captions. The AI tools used for the images were used with Canva AI. Image optimization using Canva AI can be seen in Figure 2 below. The researcher entered a command to create an image to promote a sales application called Blapak.

Figure 2. Commands for creating images in Canva AI



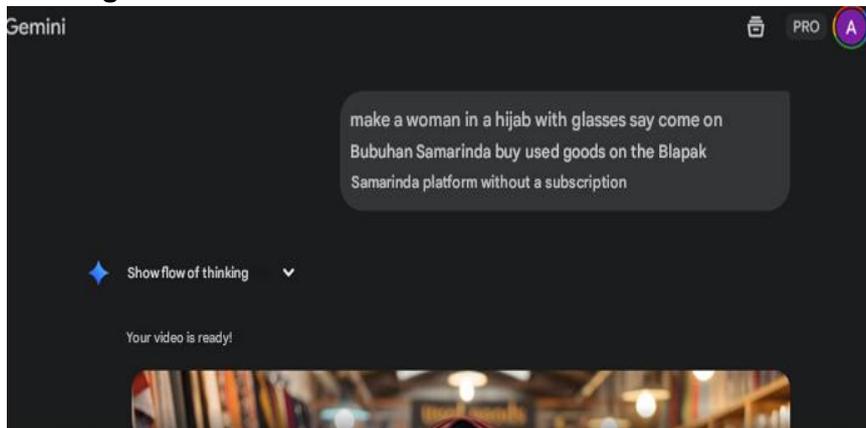
The resulting image, created by Canva AI to promote the Blapak app, appears. The resulting image content can be seen in Figure 3 below.

Figure 3. Image Content Results with Canva AI



Then, video creation was added with Gemini AI. In practice, this can be seen in Figure 4 below. The researcher attempted to input a command to create a woman wearing a hijab and glasses and say, "Let's go to Samarinda to buy used goods on Blapak Samarinda, a subscription-free platform."

Figure 4. Commands to create videos with Gemini AI



The resulting video content can be seen in Figure 5. The video depicts an invitation to followers to view and purchase products on the Blapak app.

Figure 5. Video Content Results with Gemini AI

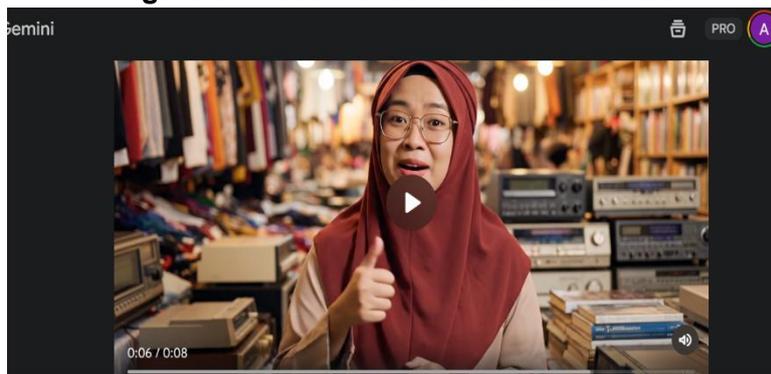
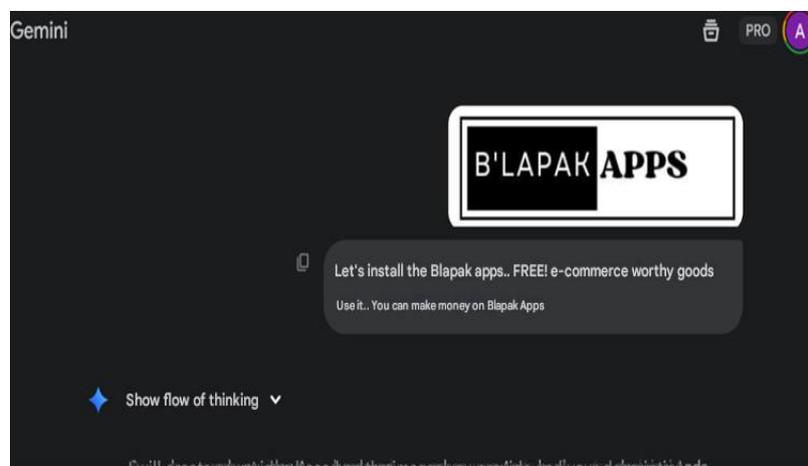


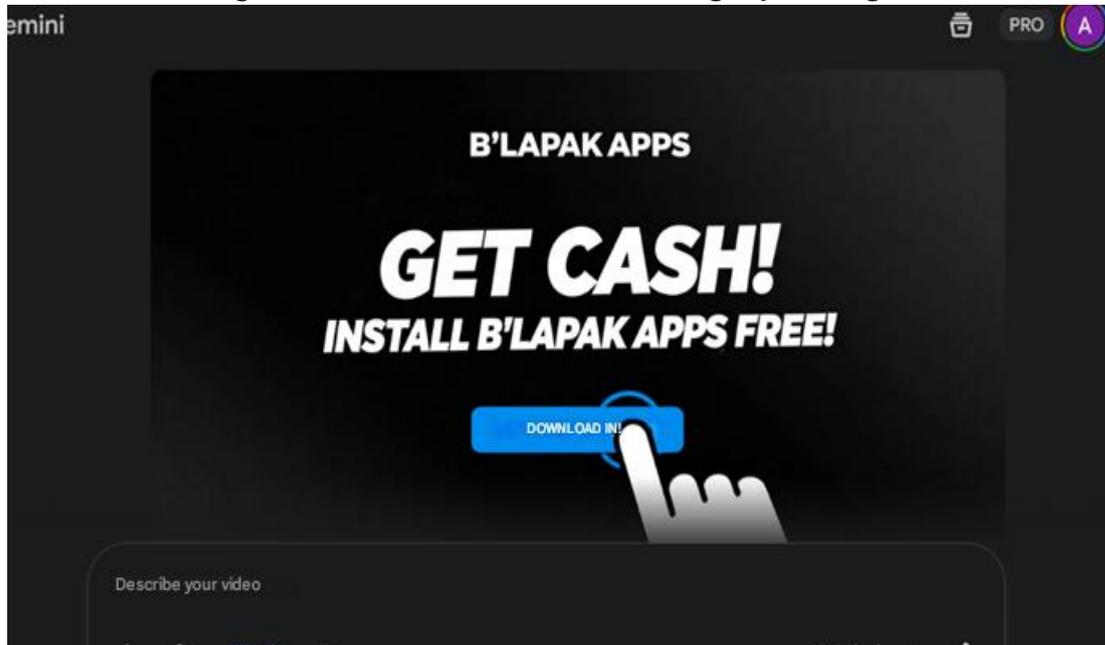
Figure 6 shows another video experiment featuring an invitation to join the Blapak app and the potential benefits. This time, a logo was added to the Gemini AI prompt.

Figure 6. Command to create a video using images



The resulting video contains content that encourages users to install the app and gain benefits. In the resulting content, Gemini AI adapts the input image to the video display. The resulting video content can be seen in Figure 7.

Figure 7. Video content results using input images



Next, Instagram caption creation is assisted by copywriting techniques using Meta AI. Meta AI will provide responses in the form of several copywriting examples tailored to the desired advertising needs. Figure 8 shows an example of optimizing content ad creation using Meta AI.

Figure 8. Copywriting creation with Meta AI

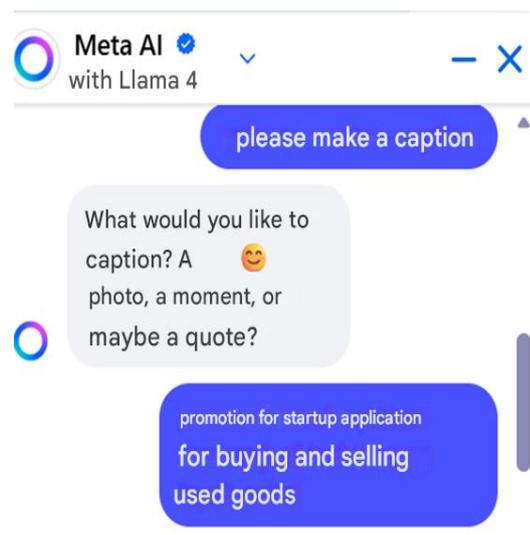
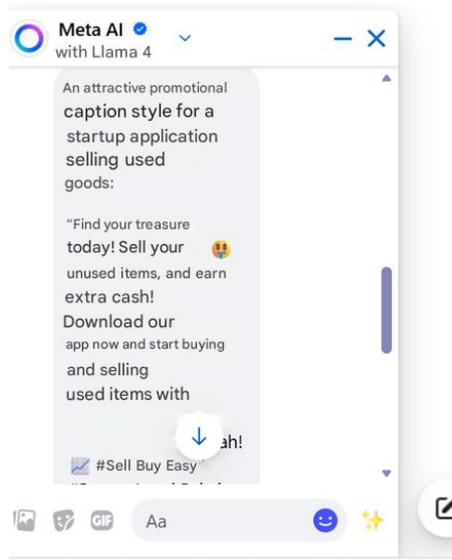
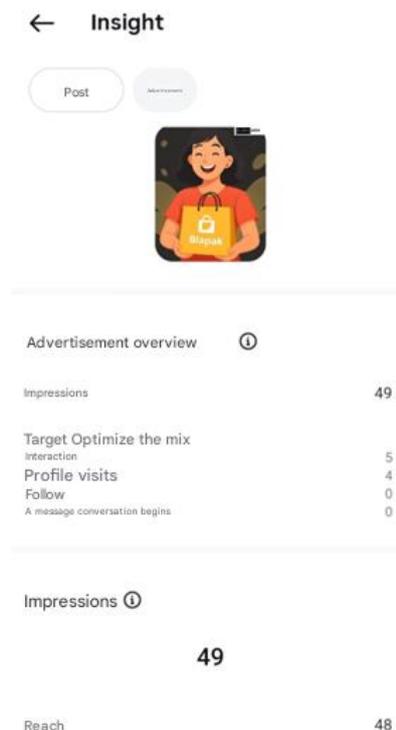


Figure 9. Copywriting results created by Meta AI



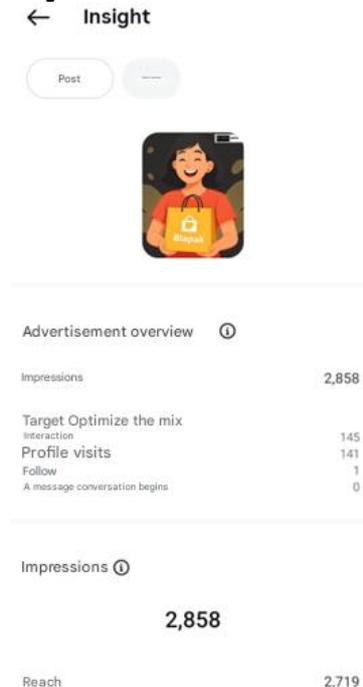
After some of the content created using the AI approach, the researchers posted it on Meta's social media platform, specifically Instagram. To optimize advertising, the researchers paid for an ad on Meta. Meta's advertising optimization can be measured through content performance analysis, including engagement rate, reach, and conversion rate in the insights section. Figure 10 shows the initial number of insights for the content before advertising optimization.

Figure 10. Content Analysis before Meta Ads advertising



After optimizing using AdSense, Figure 11 shows insights from analyzing the performance of advertised content. The analysis was conducted one day after the content was advertised with Meta Ads.

Figure 11. Content Analysis after Meta Ads advertising is carried out



Content performance analysis measures paid advertising (ads) activity by examining insights from social media platforms like Instagram, including the number of impressions and reach. Views can be viewed on both the web and mobile versions.

In this article, the researcher includes the mobile version. The content analysis, as seen in Figures 10 and 11, examines the number of impressions and reach. Before advertising, the content in Figure 10 had 49 impressions and 48 reach. After using paid advertising, the number of impressions and reach increased to 2,858 impressions and 2,719 reach. This increase is significant. Therefore, paid advertising is a highly effective option for marketing campaigns. Furthermore, when content creation is supported by AI tools, the marketing campaign process becomes easier, faster, and more engaging.

4. CONCLUSION

Implementing digital product promotion for startups using Artificial Intelligence (AI) technology feels much easier and produces compelling results. This is a unique selling point for current marketing campaigns. The campaign continues with paid advertising on social media. Meta, a popular social media platform, also greatly facilitates marketers in conducting targeted promotions within budget. Meta Ads provides settings for targeting, duration, and advertising pricing according to marketer needs. Advertising measurement can also be seen through Meta's insight feature,

which shows that advertised content has significantly higher engagement than before the content was advertised.

The benefit of this research is that social media marketing is the best and most up-to-date method for digital information dissemination, supported by various new features and Artificial Intelligence (AI) technology, which adds practical ways to improve product image and reputation. Marketing is easier and reaches a wider target market, and is more effective and efficient in terms of costs. The implementation of advertising on the research objects using artificial intelligence and Meta Ads supports the findings of this study. Furthermore, social media and AI technology also have the potential to help businesses respond more quickly to problems and compete competitively. Despite its shortcomings, this research also recommends further analysis and evaluation of content created with AI. Then, you can add the concept of advertising through influencers or affiliates.

ACKNOWLEDGEMENTS

This article supports the research output of an internal junior lecturer at Samarinda State Polytechnic. The results are expected to support the multidisciplinary field of information management and digital business.

REFERENCES

- Abror, R. A., Rozaki, Z., Wulandari, R., & Distriananda, R. I. (2025). *Inovasi Teknologi Ramah Lingkungan yang dipromosikan melalui media sosial*. In *Inovasi Teknologi Ramah Lingkungan yang dipromosikan melalui media sosial*. Agribusiness, Agriculture, Universitas Muhammadiyah Yogyakarta.
- Aditya Nirwana, Sudarmiatin, & Melany. (2023). Implementation of Artificial Intelligence in Digital Marketing Development: a Thematic Review and Practical Exploration. *Jurnal Manajemen Bisnis, Akuntansi Dan Keuangan*, 2(1), 85–112. doi:10.55927/jambak.v2i1.4034
- Ahmed, A., Rashid, S., Saad, N. M., Rana, M. W., Khoso, I. A., & Ahmed, Z. (2025). The tech advantage: exploring technological determinants of social media marketing adoption in Pakistani small and medium startups. *Journal of Innovation and Entrepreneurship*, 14(23). doi:10.1186/s13731-025-00470-3
- Aksenta, A., Fahmimroah, F., & Syarifuddin, A. (2025). *Buku Ajar Social Media Marketing*. CV. NUSANTARA PRESS INDONESIA.
- Aksenta, A., Nawawi, M., & Audhis, A. (2024). *Business Strategic and Implementation of Digital Startup of Usable Goods Commerce in Samarinda City*. *Mantik Journal* (Vol. 8). Online.
- Aksenta et al. (2023). *Digital Literacy (Knowledge and Latest Transformation of Digital Technology in the Industrial Era 4.0 and Society 5.0)*. PT Sonpedia Publishing. Retrieved from www.buku.sonpedia.com
- Alammal, A. H., & Al Mubarak, M. (2023). Artificial Intelligence in Marketing: Concerns and Solutions. In M. Al Mubarak & A. Hamdan (Eds.), *Technological Sustainability*

- and Business Competitive Advantage* (pp. 101–113). Cham: Springer International Publishing. doi:10.1007/978-3-031-35525-7_7
- Ani Kesuma, H. W., Sutarto, J., & Ahmadi, F. (2025). The Application Of Artificial Intelligence To Create Promotional Content In Digital Marketing Training. *International Journal of Education, Business and Economics Research*, 05(01), 157–166. doi:10.59822/ijeber.2025.5110
- Ashari, M. I., Choliq, A., & Fitrianto, M. N. (2025). Pemanfaatan Meta-Ads Dan Optimalisasi Konten Iklan Menggunakan Ai Untuk Meningkatkan Penjualan Produk Umkm Kelurahan Pondok Aren. *Jurmas: Jurnal Pengabdian Masyarakat*, 2(1).
- Bhagyalakshmi, R., & Akila. (2024). A Study On The Role And Effects Of Artificial Intelligence Applications In Social Media Marketing Among Youngsters. *IPE Journal of Management*, 14(7). Retrieved from <https://www.researchgate.net/publication/394402171>
- Bhagyalakshmi, R., & B, D. (2024). Ai Infusion Elevating Culinary Through Social Media Marketing In The Food Industry. *IPE Journal of Management*, 14(8). Retrieved from <https://www.researchgate.net/publication/394402101>
- Cabrilo, S., My Vu, H. T., Nguyen, L. V., & Vujovic Djermanovic, D. (2025). AI IN Content Marketing: Advantages And Disadvantages In The Ai ERA. *LIMES PLUS*, 9. doi:10.69899/limes-plus-en-24212-3009c
- Fathoni, R. A. R., & Mohyi, A. (2025). Pemanfaatan Teknologi Artificial Intelligence (Ai) Untuk Memaksimalkan Penerapan Strategi Digital Marketing Dalam Upaya Meningkatkan Brand Equity Pada Taman Rekreasi Sengkaling. *Studi Kasus Inovasi Ekonomi*, 9(01), 1–12. Retrieved from <http://ejournal.umm.ac.id/index.php/skie>
- Ghosh, S. (2025). Meta Ads The Name Of Growth Engine: A Case Study On Scaling Coaching Businesses In India. *International Journal Of Management*, 16(5), 174–189. doi:10.34218/ijm_16_05_010
- Hartatik dkk. (2023). *Tren technopreneurship (Strategi & Inovasi Pengembangan Bisnis Kekinian dengan Teknologi Digital)*. Jambi: PT Sonpedia Publishing. Retrieved from www.buku.sonpedia.com
- Henderson, J. A., & Theodoridis, A. (2015). *Seeing the Spots: An Experimental Examination of Voters Appetite for Partisan and Negative Campaign Advertising*. Retrieved from <https://ssrn.com/abstract=2629915>
<http://www.alexandertheodoridis.com>,
<https://ssrn.com/abstract=2629915>
<http://ssrn.com/abstract=2629915>
- Iankovets, T., & Nikolaiev, D. (2024). Meta Ads digital advertising in social networks. *Scientia Fructuosa*, 5(157), 76–88. doi:10.31617/1.2024(157)06
- Jorzik, P., Antonio, J. L., Kanbach, D. K., Kallmuenzer, A., & Kraus, S. (2024). Sowing the seeds for sustainability: A business model innovation perspective on artificial intelligence in green technology startups. *Technological Forecasting and Social Change*, 208. doi:10.1016/j.techfore.2024.123653
- Konlan, B., Nassè, T. B., Gyader, G., & Musah, H. (2025). From Plagiarism to Post Plagiarism: The Role of AI in Shaping the Future of Content Creation. *Journal of Innovations*, 3(5). doi:10.62470/2e251517

- Kubovics, M. (2025). *Experience With Artificial Intelligence and Attitudes Towards Social Media Copywriting*. In *The Proceedings of the 20th European Conference on Innovation and Entrepreneurship*.
- Marliana, D. (2023). Strategi Komunikasi Pemasaran Trans TV dengan Menggunakan Meta Ads dalam Meningkatkan Brand Awareness. *Jurnal Ilmu Politik Dan Komunikasi*, XIII(2). Retrieved from <https://databoks.katadata.co.id/datapublish/2>
- Mitra, S. (2023). Generative AI and Metaverse: Companionship and Assisted Living for Elderly People. doi:10.13140/RG.2.2.11672.16642
- Møller, A. G., Romero, D. M., Jurgens, D., & Aiello, L. M. (2025). The Impact of Generative AI on Social Media: An Experimental Study. Retrieved from <http://arxiv.org/abs/2506.14295>
- Muhardono, A., Sunarjo, W. A., Murty, A. D., Aji, S. B., & Sari, T. L. (2024). Pelatihan Optimalisasi Konten Marketing menggunakan Aplikasi Artificial Intellegence (AI) bagi UMKM Kampoeng Batik Kauman Pekalongan. *I-Com: Indonesian Community Journal*, 4(3), 1959–1968. doi:10.33379/icom.v4i3.5104
- Nabivi, E. (2025). The Role of Social Media in Green Marketing: How Eco-Friendly Content Influences Brand Attitude and Consumer Engagement. *Sustainability (Switzerland)*, 17(5). doi:10.3390/su17051965
- Prawira P, F. A., & Indrawati. (2023). Analysis Effectiveness Use of Ads through Meta Ads and Google Ads at MSME fashionlabs.id. *Journal of Advanced Zoology*, 44(3). Retrieved from <https://jazindia.com>
- Putra, I. B. A., & Darmawan, I. M. D. H. (2025). Analisis Strategi Sosial Media Marketing Kopi Kenangan melalui Instagram Feeds. *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, 8(1), 2615–3009.
- Sadma, O. (2021). The Role of Environmental-Based “Green Startup” in Reducing Waste Problem and its Implication to Environmental Resilience. *The Role of Environmental-Based “Green Startup” in Reducing Waste Problem and Its Implication to Environmental Resilience*, 1(3), 106–114. Retrieved from <http://journal.publindoakademika.com/index.php/RH>
- Shaw, M. P., & Puja Devgun, M. (2025). AI in Content Creation. *International Journal for Multidisciplinary Research (IJFMR)*, 7(3). Retrieved from www.ijfmr.com
- Solviana, M. D., Anisya, S., Puspita, L., Novitasari, A., & Elice, D. (2025). Optimization of Digital Communication Strategy in the Use of Gemini AI in Education (Case Study and Analysis): Breaking the Limits of Virtual Interaction in the Metaverse. *KnE Social Sciences*, 10(14), 436–450. doi:10.18502/kss.v10i14.19108
- Spasova, V., & Grujovski, V. (2025). *The Impact Of Ai On Personalized Content Marketing*. *Article in Knowledge International Journal* (Vol. 69). Retrieved from <https://www.researchgate.net/publication/392323421>
- Suchanová, T. (2024). *Digital Marketing Using Artificial Intelligence for Educational Institutions*. Tampere University of Applied Sciences. Retrieved from <https://urn.fi/URN:NBN:fi:amk-2024120533458>
- Supradaka, Sakti, E. M. S., & Marhalinda, H. S. P. (2024). Optimalisasi Kecerdasan Buatan (AI) dalam Pembuatan Konten Video Agrowisata Kisuci. *IKRAITH-HUMANIORA*, 8(3).

- Surjono, W. (2024). Strategi Manajemen Pemasaran Digital dalam Meningkatkan Loyalitas Pelanggan: Studi Kasus pada Perusahaan Start-up Teknologi di Indonesia. *Journal of Mandalika Literature*, 6(1), 2745–5963.
- Tanaka, S., Yamazaki, R., Fujii, H., Kondo, T., & Kumar, K. (2024). Role Of Ai In Social Media Influence Analytics.
- Wahid, R. (2025). Generative AI for Content Marketing. In *Encyclopedia of Artificial Intelligence in Marketing* (pp. 1–11). Springer Nature Switzerland. doi:10.1007/978-3-031-75316-9_39-1
- Wahid, R., Mero, J., & Ritala, P. (2025). Technology-enabled democratization: Impact of generative AI on content marketing agencies. *Industrial Marketing Management*, 131, 1–16. doi:10.1016/j.indmarman.2025.09.007
- Wernerfelt, N., Tuchman, A., Shapiro, B. T., & Moakler, R. (2022). *Estimating the Value of Offsite Data to Advertisers on Meta*.
- Wibowo, S. E., Aksenta, A., Hartanto, S., & Negeri Samarinda, P. (2024). The Strategic Role Of Brand Storytelling In Enhancing Marketing Management And Brand Awareness On Social Media Platforms-Sarwo Eddy Wibowo et.al The Strategic Role Of Brand Storytelling In Enhancing Marketing Management And Brand Awareness On Social Media Platforms. *Jurnal Multidisiplin Sahombu*, 4. doi:10.58471/jms.v4i02
- Wicaksono, D., Luqman Bukhori, M., Irmawan, E., Setiawan, F., & Zuhairini, R. (2024). The business development of “Generasicendekia” an online training platform startup with operations based on Meta Ads. *ARSY:Aplikasi Riset Kepada Masyarakat*, 6. Retrieved from <http://journal.al-matani.com/index.php/arsy>, Online