



RESEARCH ARTICLE

Implementation of AI-Based TikTok Content Marketing to Increase Sales: A Study of MSMEs X

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Abstract

The rapid growth of the global edutech industry has encouraged MSMEs to strengthen digital marketing strategies. X Edutech, an MSME specializing in artificial intelligence education, previously relied mainly on paid Facebook Ads and had not utilized TikTok as a marketing channel. This study aimed to analyze the initial marketing condition, implement an AI-assisted TikTok content strategy, and evaluate its associated marketing and sales outcomes. A qualitative project-based applied research approach was employed using Pulizzi's (2014) six-stage content marketing framework. Data were collected through observation, semi-structured interviews, documentation, literature review, and open-ended questionnaires. SWOT analysis and the Value Proposition Canvas were used to identify marketing opportunities. The implementation involved developing a content strategy, establishing a TikTok account, creating a content calendar, and publishing 36 AI-assisted content pieces over two months. The implementation generated 538 followers, 32,877 views, 84 leads, 29 inquiries, and 55 sales attributed to TikTok. Transactions increased from 144 to 207, while revenue increased by 43.75%. These findings indicate an association between the implementation and improved marketing and sales indicators. However, the changes cannot be attributed solely to AI-assisted TikTok marketing because Facebook Ads, TikTok Ads, and other activities continued during the project.

Keywords

Content Marketing; Artificial Intelligence; TikTok; MSME; Sales Increase.

1 | INTRODUCTION

Digital transformation has intensified competition in the education technology (edutech) industry by increasing demand for flexible, personalized, accessible, and technology-driven learning solutions (Bouchrika, 2026). The continued growth of the edutech market, supported by technological developments such as artificial intelligence (AI), data analytics, and digital learning platforms, creates opportunities for edutech businesses while simultaneously increasing the need for effective digital marketing strategies to reach and engage potential customers (Precedence Research, 2025). For edutech MSMEs, this competition is particularly challenging because they generally operate with more limited financial, human, and technological resources than larger companies. Therefore, marketing strategies need to be efficient, measurable, and capable of building sustained audience engagement (Porter, 2008; Tambunan, 2019). Social media, particularly TikTok, has become an important channel for businesses to reach digital audiences. TikTok's large user base, interest-based recommendation algorithm, and short-form video format provide opportunities to increase brand reach and audience engagement (Critical Truth, 2025; Zhang *et al.*, 2024). However, the effectiveness of TikTok marketing does not depend merely on the frequency of content publication but also on the relevance, creativity, consistency, and alignment of content with audience characteristics (Ilmu *et al.*, 2025; Jamalulel *et al.*, 2025). At the same time, advances in AI provide opportunities to improve the efficiency and effectiveness of digital marketing by supporting consumer behavior analysis, content ideation, personalization, content production, and marketing performance evaluation (Davenport *et al.*, 2020). For MSMEs, AI-assisted content marketing can potentially reduce the resources required to develop promotional content while enabling businesses to produce content more consistently and responsively. Nevertheless, AI should not be treated merely as a content production tool because its effectiveness depends on data quality, appropriate analysis, and integration into a systematic marketing strategy (Russell & Norvig, 2021). This condition is particularly relevant to MSME X, an edutech enterprise specializing in artificial intelligence training and digital competency development. Based on preliminary observations, MSME X's digital marketing activities are still dominated by Facebook Ads, while TikTok has not yet been utilized as a strategic marketing channel. In addition, AI has not been systematically integrated into the planning, production, distribution, and evaluation of marketing content. Consequently, audience growth and engagement remain suboptimal, while sales continue to depend largely on short-term promotional activities. The results of a SWOT analysis and Value Proposition Canvas further indicate a gap between the educational value offered by MSME X and the marketing messages perceived by its target audience. Although MSME X possesses strong capabilities in AI and has opportunities to expand its market, these strengths have not yet been optimally translated into a systematic and sustainable digital content marketing strategy.

This situation indicates the need for an approach that can utilize TikTok's audience potential while leveraging AI to support the development and evaluation of relevant marketing content. Several previous studies have investigated the application of AI, content marketing, and TikTok in digital marketing. Embabi (2025) demonstrated that TikTok's AI-driven recommendation algorithm can enhance customer engagement through personalized content distribution. Muhardono *et al.* (2024) found that AI applications improve the efficiency of marketing content production among MSMEs, while Indriani and Kumalasari (2025) reported that integrating generative AI with a design thinking approach improves the efficiency and consistency of promotional content. Aslam *et al.* (2025) proposed a conceptual framework for AI-based digital marketing strategies for MSMEs, while Jamalulel *et al.* (2025) found that content consistency, visual creativity, and message relevance positively influence customer engagement on TikTok. These studies demonstrate the potential of AI and TikTok in supporting digital marketing activities; however, several gaps remain. Previous research has generally examined AI, TikTok, and content marketing from separate perspectives rather than integrating them into an applied implementation process. Existing studies have also largely focused on conceptual frameworks, recommendation algorithms, or content production efficiency, with limited evidence of end-to-end implementation in an actual MSME business context. Furthermore, empirical research on AI-assisted TikTok content marketing in edutech MSMEs, particularly its implementation and contribution to marketing performance and sales potential, remains limited. Based on these gaps, this study focuses on the implementation of AI-assisted TikTok content marketing at MSME X. The study aims to analyze the existing digital marketing condition and challenges faced by MSME X, design and implement an AI-assisted TikTok content marketing strategy based on its marketing needs, and evaluate the resulting audience engagement and marketing performance as well as its potential contribution to sales growth. In accordance with these objectives, the study seeks to answer how the existing digital marketing condition of MSME X influences its need for TikTok and AI utilization, how AI-assisted TikTok content marketing can be designed and implemented to address the company's marketing challenges, how the implementation affects audience engagement and marketing performance, and to what extent the strategy can contribute to the potential increase in sales. Through this approach, the study is expected to provide empirical evidence regarding the practical integration of AI and TikTok content marketing in an edutech MSME context. The findings are also expected to contribute to the literature on AI-assisted content marketing and provide practical guidance for MSMEs seeking to develop more relevant, consistent, efficient, and measurable digital marketing strategies to support audience engagement and sales growth.

2 | BACKGROUND THEORY

2.1 Digital Marketing for MSMEs

Digital marketing refers to the use of digital technologies, platforms, and data to plan, implement, communicate, and evaluate marketing activities aimed at reaching consumers and building sustainable relationships. For MSMEs, digital marketing provides opportunities to overcome limitations in promotional resources, expand market reach, and interact directly with consumers at relatively lower costs than conventional marketing channels (Astuti *et al.*, 2022). The use of digital platforms also enables MSMEs to collect consumer information and evaluate marketing activities based on measurable responses, allowing marketing decisions to become more targeted and adaptive (Satrio & Muhandono, 2022). Therefore, digital marketing is not limited to the use of digital media as a promotional channel but encompasses an integrated process of reaching consumers, delivering value, building relationships, and evaluating marketing performance. The development of social media has strengthened the role of digital marketing because businesses can communicate with consumers through interactive and continuously evolving digital environments. Social media enables MSMEs to communicate their value propositions, build brand awareness, receive consumer feedback, and encourage audience engagement. Consequently, effective digital marketing requires not only the adoption of appropriate technology but also the development of relevant content and the ability to understand consumer needs. In this study, digital marketing functions as the overarching framework within which TikTok and AI-assisted content marketing are implemented to support the marketing activities of MSME X.

2.2 Social Media Marketing

Social media marketing is a marketing approach that utilizes social media platforms to communicate value, encourage interaction, build relationships, and influence consumer behavior. Unlike traditional marketing communication, social media enables consumers to actively participate through comments, shares, likes, and other forms of interaction. These interactions generate information that can be used by businesses to understand audience responses and improve subsequent marketing strategies. Therefore, social media marketing involves not only distributing promotional messages but also managing interactions and developing continuous relationships with consumers. TikTok represents a relevant social media platform for MSMEs because its short-form video format and recommendation system provide opportunities for content to reach audiences beyond an account's existing follower base. The platform's algorithmic distribution enables content visibility to be influenced by audience interests and engagement responses, making content relevance and audience interaction important components of TikTok marketing performance. Bandawaty *et al.* (2024) indicate that TikTok provides opportunities for businesses to implement short-form video marketing strategies and reach broader audiences. Accordingly, the effectiveness of TikTok marketing depends on the ability of businesses to develop content that is relevant, creative, consistent, and aligned with audience characteristics. In the context of this study, TikTok functions as the primary marketing channel through which AI-assisted content is distributed. The interaction between content characteristics and audience responses subsequently produces performance indicators such as reach, views, engagement, audience growth, and conversion-related responses. These indicators become an important basis for evaluating whether the implemented content strategy supports the marketing objectives of MSME X.

2.3 Content Marketing

Content marketing is a strategic marketing approach that focuses on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience (Pulizzi, 2014). Unlike promotional communication that focuses primarily on immediate transactions, content marketing emphasizes the provision of information, education, entertainment, or other forms of value that can strengthen audience relationships over time. The effectiveness of content marketing therefore depends on the extent to which the content addresses audience needs while remaining aligned with the organization's marketing objectives. The implementation of content marketing involves several interconnected activities, including identifying the target audience, determining marketing objectives, developing a content strategy, creating relevant content, distributing content through appropriate channels, encouraging audience engagement, and evaluating performance. Pulizzi (2014) provides a foundational perspective for understanding these strategic principles. However, the increasing use of artificial intelligence has expanded the way content marketing activities can be implemented. Contemporary AI technologies, particularly generative AI, can assist marketers in activities such as content ideation, text generation, content personalization, visual development, and performance-based optimization. These capabilities position AI as a supporting technology within the content marketing process rather than as a replacement for strategic human decision-making. Recent research suggests that AI can improve marketing efficiency by supporting content creation and enabling businesses to process and utilize consumer-related information more effectively. Muhandono *et al.* (2024) found that AI applications can improve the efficiency of marketing content production among MSMEs, while Indriani and Kumalasari (2025) demonstrated that the integration of generative AI with design thinking can improve

the efficiency and consistency of promotional content. Aslam *et al.* (2025) further proposed the use of AI-based digital marketing strategies as an opportunity for MSMEs to improve their marketing capabilities. These findings indicate that AI-assisted content marketing should be understood as an integration between marketing strategy and AI-supported execution, in which human judgment remains important in determining audience needs, brand positioning, message relevance, and content quality. In this study, AI-assisted content marketing refers to the utilization of AI tools to support the planning, ideation, production, and optimization of TikTok marketing content for MSME X. AI is therefore positioned as an enabling technology within the content marketing process, while the strategic direction remains based on the business objectives and characteristics of the target audience.

2.4 AI-Assisted Marketing

Artificial intelligence has increasingly become an important component of contemporary marketing because it enables businesses to process large amounts of data, identify patterns in consumer behavior, personalize communication, and support marketing decision-making. AI-assisted marketing refers to the use of AI technologies to support marketing activities while retaining human control over strategic decisions. Rather than replacing marketers, AI can function as a decision-support and productivity-enhancing technology that assists organizations in developing more responsive and data-informed marketing strategies. The application of AI in content marketing has expanded considerably with the development of generative AI. Generative AI can assist marketers in generating content ideas, developing scripts and captions, producing or modifying visual materials, adapting messages to different audience segments, and supporting content optimization. Muhardono *et al.* (2024) demonstrate that AI can improve the efficiency of marketing content production among MSMEs, while Indriani and Kumalasari (2025) show that generative AI can support the efficiency and consistency of promotional content. Aslam *et al.* (2025) also emphasize the strategic potential of AI-based digital marketing for MSMEs. These studies suggest that AI can reduce the time and resources required for content development while supporting more systematic marketing activities. However, the effectiveness of AI-assisted marketing depends on how the technology is integrated into the overall marketing strategy. AI-generated content still requires human evaluation to ensure its relevance, accuracy, creativity, consistency with brand identity, and suitability for the target audience. Therefore, AI in this study is positioned as an assisting mechanism rather than an autonomous marketing decision-maker. Its role covers content ideation, script development, content production support, and optimization based on audience and performance information. The output of this process is AI-assisted TikTok content that is subsequently evaluated through social media performance indicators.

2.5 Customer Journey

The customer journey describes the sequence of consumer experiences and interactions with a brand across multiple touchpoints before, during, and after a purchase. Lemon and Verhoef (2016) conceptualize the customer journey into three broad stages: pre-purchase, purchase, and post-purchase. Each stage involves different consumer needs and interactions that influence perceptions, experiences, and purchasing decisions. In the pre-purchase stage, consumers become aware of a brand, search for information, and evaluate alternatives. TikTok content can support this stage by providing educational, informative, entertaining, and problem-oriented content that attracts audience attention and increases awareness of MSME X. AI can support the development of such content by assisting marketers in identifying relevant topics, generating content ideas, analyzing audience interests, and adapting messages to target audiences. In the purchase stage, content should provide sufficient information, communicate value, establish trust, and encourage consumers to take action through appropriate calls to action. In the post-purchase stage, continued communication through relevant content can support customer satisfaction, engagement, retention, and advocacy. Therefore, the customer journey provides a framework for explaining how AI-assisted TikTok content can move audiences from initial awareness toward engagement and potentially purchasing behavior. In this study, content is not evaluated solely based on its ability to generate views but also based on its potential to support different stages of the consumer journey. This perspective connects social media content performance with the broader objective of generating business outcomes.

2.6 Content Performance

Content performance refers to the extent to which digital content achieves predetermined marketing objectives based on measurable audience responses. Sterne (2010) explains that digital marketing analytics can be used to evaluate audience behavior and determine whether digital activities contribute to organizational objectives. In social media marketing, content performance can be evaluated through indicators such as reach, views, engagement, audience growth, interactions, and conversion-related actions. Content performance is influenced by several factors, including content relevance, message quality, creativity, consistency, audience characteristics, and distribution strategy. Holliman and Rowley (2014) emphasize the importance of valuable and relevant content in developing effective content marketing, while Saura *et al.* (2019) highlight the importance of digital analytics in evaluating

marketing performance and supporting data-driven decision-making. Consequently, content performance should be understood not simply as the number of views or likes generated by a post but as a set of measurable responses that indicate how effectively content supports marketing objectives. In this study, content performance functions as an intermediate indicator connecting AI-assisted content implementation with potential business outcomes. AI-assisted content is expected to improve the efficiency and relevance of content development, while TikTok provides the distribution environment in which audience responses can be observed. The resulting performance data can then be used to evaluate and refine subsequent content strategies. Thus, the relationship can be understood as a continuous process of content development, distribution, measurement, evaluation, and optimization.

2.7 Sales Increase

Sales increase represents a business outcome that reflects the organization's ability to generate greater purchasing activity and revenue. Kotler and Keller (2016) explain that marketing activities contribute to sales by communicating value, influencing consumer perceptions, building relationships, and encouraging purchase decisions. In the context of digital marketing, sales outcomes can be influenced by the effectiveness of communication, consumer-perceived value, engagement, trust, and the ability of marketing activities to guide consumers through the purchasing process. Sales increase can be assessed through indicators such as sales volume, revenue, number of new customers, and purchase frequency. However, the relationship between social media marketing and sales is not necessarily direct. Consumers may encounter content several times before developing awareness, engagement, consideration, and finally purchase intention or actual purchasing behavior. Therefore, content performance indicators such as reach and engagement can function as early signals of marketing effectiveness, while conversion and sales-related indicators provide stronger evidence of business outcomes. Within this study, sales increase is positioned as the ultimate business outcome that the AI-assisted TikTok content marketing strategy seeks to support. The implementation is expected to improve content relevance and consistency, generate stronger audience responses, facilitate movement through the customer journey, and ultimately create greater opportunities for conversion and sales.

2.8 Interconnectedness of Theories within the Project

The theories used in this study are interconnected to explain how AI-assisted TikTok content marketing can contribute to sales growth at MSME X. Digital marketing provides the overarching framework for using digital technologies to reach consumers, communicate value, and evaluate marketing activities. Social media marketing specifies the use of TikTok as the primary communication and distribution platform, while content marketing explains the strategic process of developing valuable, relevant, and consistent content for a defined audience. AI-assisted marketing complements this process by providing technological support for content ideation, script development, production, personalization, and optimization. The relationship among these concepts can be understood as a sequential and iterative process. First, MSME X identifies its target audience, marketing objectives, and existing marketing challenges within the digital marketing framework. Second, AI is utilized to support the development of content ideas, scripts, visual concepts, and content optimization based on audience characteristics and available performance information. Third, the resulting content is distributed through TikTok as the primary social media marketing channel. Fourth, audience responses are evaluated through content performance indicators such as reach, views, engagement, audience growth, and conversion-related actions. Fifth, these performance results provide feedback for improving subsequent content strategies. Through this process, content becomes a touchpoint within the customer journey that can support consumer awareness, consideration, purchase decisions, and post-purchase relationships.

3 | METHOD

This study employed an applied capstone project with a qualitative approach to implement AI-assisted TikTok content marketing at MSME X. The study was conducted from February to June 2026, covering initial condition analysis, content strategy development, implementation, and evaluation, with TikTok content implementation conducted during May–June 2026. Primary data were collected through observation, semi-structured interviews, open-ended questionnaires, and documentation, while secondary data were obtained from relevant literature, TikTok Analytics, and MSME X business records. Interviews were conducted offline for approximately 30–90 minutes per informant using questions addressing the initial marketing condition, marketing challenges, content strategy, AI utilization, TikTok implementation, audience responses, and sales-related activities. The study involved four informants selected through purposive sampling: Herry Prasetyo (MSME owner), Roby Mulya Pratama (Marketing Staff), Heru Mulyadi (Marketing and Sales Manager), and one Mahir.AI consumer representing a current or prospective user. The informants were selected based on their direct involvement in marketing activities or experience with Mahir.AI's TikTok content.

In addition, 100 consumer respondents participated in the open-ended questionnaire. Because the exact population of current and prospective Mahir.AI users was unknown, the Lemeshow formula was used to determine the minimum sample size, with a 95% confidence level, a population proportion of 0.5, and a 10% margin of error, resulting in 96.04 or 97 respondents. Therefore, 100 respondents were selected purposively based on the criteria of being current or prospective Mahir.AI users, actively using TikTok, and having been exposed to or interacted with Mahir.AI-related content. The questionnaire addressed content quality, relevance, AI utilization, audience engagement, trust, purchase intention, and post-service experience. The AI-assisted TikTok strategy involved marketing condition analysis, content strategy development, AI-assisted ideation and production, content publication, and performance evaluation. AI supported content ideation, script and caption development, visual concepts, and optimization, while human evaluation ensured alignment with MSME X's objectives and target audience. Data were analyzed using the Miles, Huberman, and Saldaña interactive model through data condensation, data display, and conclusion drawing and verification. Data credibility was established through source and method triangulation by comparing interviews, questionnaires, observations, documentation, TikTok Analytics, and sales records. A before-after analysis was conducted to compare content performance, audience engagement, and sales-related indicators before and after implementation.

4 | RESULTS AND DISCUSSION

4.1 Results

4.1.1 Overview of the Capstone Project Subject

MSME X is an enterprise operating in the educational technology sector since 2023, focusing on providing educational services related to the use of Artificial Intelligence (AI), such as digital courses, AI tool utilization, creative video production, and educational content. Prior to this capstone project, digital marketing activities were concentrated on a single platform, meaning the use of other social media channels for marketing purposes was suboptimal.

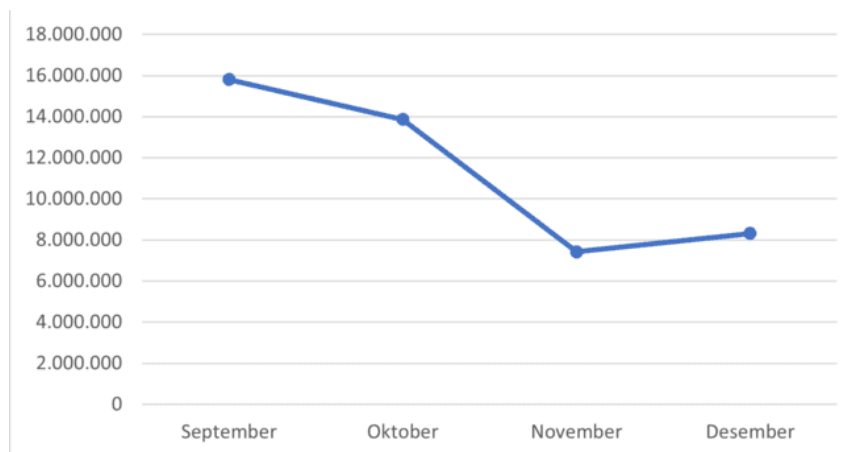


Figure 1. X Sales Revenue Chart (Sept-Dec 2025)

Source: X Company Owner, 2025

As shown in Figure 1, MSME X experienced a decline in sales during the September–December period. Observations and interviews revealed that one contributing factor was a marketing strategy that relied heavily on Facebook Ads without the support of organic content marketing on other social media platforms.

Table 1. X Value Proposition Canvas Analysis

Component	Analysis
Customer Jobs	The target audience seeks to enhance their competencies in artificial intelligence and digital technologies through practical, industry-relevant, and easily accessible online learning.
Customer Pains	Limited understanding of complex AI concepts, lack of practical and structured learning resources, and insufficient AI educational content on social media that is easy to understand.
Customer Gains	Access to concise, practical, and industry-relevant AI learning, along with opportunities to improve individual competitiveness in the digital job market.
Products & Services	Digital AI educational videos, tutorials, online learning materials, and webinars designed to enhance users' practical competencies.
Pain Relievers	Simplified learning materials based on real-world case studies and delivered through an easy-to-

Gain Creators	understand educational approach. Relevant, flexible, and knowledge-oriented AI educational content tailored to the needs of the target audience.
Value	X's AI educational value proposition has not been effectively communicated through social media
Proposition Gap	due to limitations in its content strategy and utilization of social media platforms.

Source: Processed by the researcher, 2025

The Value Proposition Canvas analysis indicates that UMKM X has a strong alignment between customer needs and the educational services it offers. The target audience seeks practical and accessible AI learning, while UMKM X provides digital learning content designed to address these needs. However, the analysis also reveals a value proposition gap, as the educational value offered has not been communicated effectively through social media due to limitations in content strategy and platform utilization. These findings highlight the need for a more structured AI-driven TikTok content strategy to improve audience reach, engagement, and the communication of UMKM X's value proposition.

4.1.2 Problem Identification

Problem identification was conducted to map the initial state of MSME X by analyzing sales conditions and existing marketing channels, as well as synthesizing digital marketing aspects, in order to identify the root causes of issues prior to the capstone project's implementation. An analysis of sales conditions was performed to establish a baseline for evaluating the effectiveness of the content marketing strategy to be implemented.

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140	MA-230828	21/04/2026 7:02 am	99134	Terbayar	Mahir Desain AI dalam 1 Hari Mulai dari Nol	Rini	081787720023	+	081787720023	081787720023	081787720023	081787720023	081787720023	Rini
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142	MA-230891	21/04/2026 11:06 am	99188	Terbayar	Mahir Desain AI dalam 1 Hari Mulai dari Nol	Anty	081288406124	+	081288406124	081288406124	081288406124	081288406124	081288406124	Anty
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Figure 2. MSME X Sales Data (March–April)

Source: Owner/Internal Data of MSME X, 2026

Based on Figure 2, MSME X recorded 144 transactions with a total revenue of IDR 14,256,000 during the March–April period. Consumers obtained information via Facebook, Google, and Instagram. These findings indicate that the product possesses market appeal; however, sales remain volatile and dependent on specific promotional activities. Although several digital channels were utilized, their management lacked integration, preventing digital marketing efforts from operating optimally. Observations revealed that prior to the project, MSME X's marketing relied heavily on Facebook Ads, while organic social media channels were not optimally managed.



Figure 3. MSME X Instagram Account

Source: Instagram Mahirai.id, 2026

As shown in Figure 3, the Instagram account featured only three posts and had 1,102 followers. Interviews with the owner indicated that Instagram management was discontinued due to limited human resources and time, as well as the absence of structured content planning. This situation demonstrates that while MSME X possesses an audience, it has yet to build sustainable relationships through organic content marketing. Meanwhile, Facebook Ads served as the primary promotional medium, yielding faster results.



Set iklan	Jangkauan	Impresi	Klik tautan	Tayangan halaman...	% Landing	Jumlah yang dibelanjakan
Set iklan - Mahir AI	73.930	116.866	1.285	1.027	79.92%	Rp 2.794.804
Hasil dari 1 set iklan	73.930	116.866	1.285	1.027	79.92%	Rp 2.794.804

Figure 4. Facebook Ads Performance

Source: Marketing Manager/Internal Data of MSME X, 2026

Based on Figure 4., the Facebook Ads campaign in March reached 73,930 accounts, generating 116,866 impressions, 1,285 link clicks, and 1,027 page views, with a page view rate of 79.92% and a budget of IDR 2,794,804. Interviews with the Marketing Manager and Marketing Staff revealed that promotional effectiveness relies heavily on paid advertising, resulting in a drop in reach whenever campaigns are halted. This situation indicates an absence of organic marketing strategies capable of building long-term marketing assets. Based on observations, interviews, and documentation, MSME X's digital marketing is still dominated by Facebook Ads, while organic social media management has not been consistently implemented. Furthermore, MSME X lacks content planning, a publication calendar, and Key Performance Indicators (KPIs) to guide its content marketing efforts. Consequently, marketing activities remain sporadic and dependent on paid advertising. Given the potential for TikTok, a more integrated digital marketing strategy is required, specifically, the implementation of organic, TikTok-based content marketing to complement paid promotions. These findings serve as the basis for further analysis using SWOT, TOWS, and the Value Proposition Canvas frameworks to formulate a suitable marketing strategy for MSME X.

4.1.3 Marketing Opportunities as the Basis for Content Development (Summary)

After identifying the initial state of Company X's digital marketing, SWOT, TOWS, and Value Proposition Canvas (VPC) analyses were conducted to formulate marketing opportunities and establish a foundation for the content marketing strategy. These analyses were based on observations, interviews, and documentation gathered during the capstone project.

Table 2. SWOT Analysis

Aspect	Analysis
Strengths	1. Company X operates in the Artificial Intelligence education sector, which has strong growth potential due to the increasing adoption of AI technologies. 2. Company X offers a variety of educational services, including digital courses, AI tools training, creative video production, and AI consulting that meet market needs. 3. The target market includes students, university students, professionals, and SMEs, providing broad market potential. 4. Company X has experience in digital promotion through Facebook Ads, providing a solid foundation for digital marketing activities.
Weaknesses	1. A structured content marketing strategy has not yet been developed to guide digital marketing activities. 2. Social media accounts have not been managed consistently or optimally, limiting the company's ability to build brand awareness and audience engagement. 3. Marketing activities remain heavily dependent on Facebook Ads, making promotional reach highly reliant on advertising budgets. 4. Organic reach and audience interaction remain relatively low.
Opportunities	1. The rapid growth of TikTok users in Indonesia presents significant opportunities for digital marketing through short-form video content. 2. Public interest in learning Artificial Intelligence continues to increase, creating greater demand for educational content. 3. Advances in AI technology enable faster, more efficient, and more consistent content production. 4. Organic marketing provides a more cost-effective alternative to paid advertising. 5. The

Threats	growing preference for short-form video content offers opportunities to expand market reach.	
	1.	The increasing number of Artificial Intelligence education providers has intensified market competition.
	2.	Changes in social media algorithms may affect content reach and performance.
	3.	Competitors have already established an active presence on TikTok, increasing competition for audience attention.
	4.	Rapid changes in content trends and audience preferences require continuous innovation.5. The abundance of AI-related content on social media requires Company X to establish clear differentiation in order to remain competitive.

Source: Processed by the Researcher/Company X Internal Data, 2026.

The SWOT analysis reveals that Company X possesses strengths such as AI educational services that align with market needs, a broad target audience, and experience running digital promotions via Facebook Ads. However, the company faces weaknesses, including the lack of a structured content marketing strategy, inconsistent social media management, reliance on Facebook Ads, and low organic reach. Externally, opportunities arise from the growth of TikTok users, increasing public interest in AI, and AI technological advancements that facilitate content production; meanwhile, threats include rising competition, changes in social media algorithms, and shifting content trends. Interview results with the owner reinforce these findings:

"Public interest in AI continues to grow, so we see a significant opportunity. The challenge lies in how to communicate this through the right channels to reach more potential customers."

Table 3. TOWS Analysis

Component		Strategic Analysis	
Strengths Opportunities (SO)	–	1.	Leverage Company X's expertise in Artificial Intelligence to develop educational content that aligns with the growing public interest in AI.
		2.	Maximize educational services as the primary content theme on TikTok to expand organic market reach.
		3.	Utilize TikTok's rapid growth as a digital marketing platform to increase brand awareness, audience engagement, and sales potential.
Weaknesses Opportunities (WO)	–	1.	Create and optimize a TikTok account as a digital marketing channel that had not previously been utilized.
		2.	Develop a structured content marketing strategy, content calendar, and content guidelines to ensure consistent and well-organized content management.
		3.	Utilize Artificial Intelligence technology to accelerate content production, improve content quality, and maintain publishing consistency.
		4.	Reduce dependence on Facebook Ads by strengthening organic marketing efforts through TikTok.
Strengths – Threats (ST)		1.	Produce educational content that provides greater value than competitors by delivering information in a simple, practical, and applicable manner.
		2.	Utilize AI technology to improve content production efficiency and adapt to rapidly changing social media trends.
		3.	Strengthen Company X's brand identity through consistent content that aligns with the characteristics of the target audience.
Weaknesses – Threats (WT)		1.	Establish Key Performance Indicators (KPIs) as the basis for measuring the effectiveness of the content marketing strategy.
		2.	Conduct regular content performance evaluations using TikTok Analytics to adapt strategies to changes in platform algorithms and audience behavior.
		3.	Develop content guidelines as a standard for content production to ensure quality and publishing consistency.

Source: Processed by the Researcher/Company X Internal Data, 2026.

The chosen strategy is the Weaknesses–Opportunities (WO) approach, as it is deemed most suitable for leveraging external opportunities to address internal weaknesses. Implementation involves creating and managing a TikTok account, developing a content marketing strategy, a content calendar, and content guidelines; utilizing AI for content production; and conducting evaluations using TikTok Analytics. This strategy serves as the foundation for establishing KPIs, buyer personas, SMART goals, and the content marketing plan. Subsequently, a Value Proposition Canvas (VPC) was developed to assess the alignment between the value offered by the company and the needs of the target audience.

Table 4. Value Proposition Canvas Analysis

Component	Analysis
Customer Jobs	The target audience needs learning media that helps them understand Artificial Intelligence in a simple, practical, and applicable way to support learning, work, business activities, and digital content creation. They also require flexible online learning that can be accessed anytime and anywhere.
Customer Pains	The target audience still struggles to understand Artificial Intelligence concepts because most available learning materials are highly technical, difficult for beginners, and provide limited real-life application examples. In addition, many people are still unfamiliar with how to effectively utilize various AI tools.
Customer Gains	The target audience expects learning materials that are simple, easy to understand, relevant to technological advancements, and immediately applicable to improve productivity, work efficiency, and digital skills.
Products & Services	Company X provides digital courses, AI tools training, consultation services, webinars, mentoring, AI-based creative video production, and educational content designed to enhance users' digital competencies.
Pain Relievers	Company X delivers Artificial Intelligence learning materials through short-form videos, step-by-step tutorials, AI tool demonstrations, case studies, and simple language, making the content easier to understand for a wide range of audiences.
Gain Creators	Company X creates informative educational content that is relevant to the target audience, aligned with the latest developments in Artificial Intelligence, and offers practical solutions that can be directly applied in everyday activities.
Value Proposition Gap	Prior to the capstone project, Company X had not effectively communicated its value proposition due to the absence of a structured content marketing strategy, the lack of TikTok utilization as a marketing platform, and inconsistent social media management, particularly on Instagram. Consequently, the benefits of Company X's products and services were not widely recognized by the target audience despite being relevant to market needs.

Source: Prepared by the Researcher based on Internal Data of Company X, 2026.

The VPC results indicate that Company X's services align with the needs of an audience seeking Artificial Intelligence learning that is simple, practical, and applicable. However, a value proposition gap remains; the value offered by the company is not being optimally communicated due to the absence of a structured content marketing strategy, a failure to utilize TikTok, and inconsistent social media management. These findings are supported by an interview with the Marketing Manager:

"Regarding our marketing process via Facebook Ads, delivering educational content has proven far more effective at capturing attention and building trust among potential customers compared to direct, sales-oriented service promotions (hard selling)."

Based on the overall results of the SWOT, TOWS, and VPC analyses, it can be concluded that Company X has a significant opportunity to expand its marketing efforts via TikTok. This is supported by the platform's user growth, high public interest in AI, and the alignment of the service's value with the target audience's needs. Therefore, the content marketing strategy focuses on establishing KPIs, buyer personas, SMART goals, content strategy design, a content calendar, and Artificial Intelligence-based content guidelines to serve as a framework for the capstone project's implementation.

4.1.4 Project Design (Summary)

Project design was developed after completing the initial analysis of X's digital marketing conditions. This stage translated the findings from observations, interviews, documentation, SWOT, TOWS, and the Value Proposition Canvas into a systematic strategy to guide the implementation of the capstone project. The project design focused on developing pre-project Key Performance Indicators (KPIs), buyer personas, SMART objectives, content strategy design, and content guidelines to ensure that the implementation was aligned with X's internal conditions, target audience characteristics, and available market opportunities.

Table 5. Pre-Project KPI

Content Indicator (Sterne, 2010)	Performance (Sterne, 2010)	TikTok Metric	Key Performance Indicator (2-Month Pre-Project (Baseline) Result
Reach		TikTok Account	X's TikTok Business account is successfully created
		Account Profile	Complete and optimized profile (profile picture, username, bio, WhatsApp/website link, business

Engagement	Number of Content Video Views Target Audience Engagement	category) At least 30 TikTok videos produced and published ≥10,000 total views Buyer persona and audience segmentation documented ≥800 total engagements (likes, comments, shares, saves)	0 videos 0 views No documented buyer persona No engagement
	Audience Response	All comments and messages responded to within 24 hours	No audience interaction
	Content Quality	All content produced using AI in accordance with the content guideline	AI has not been used for content creation
	Content Variety	At least four content formats (educational, entertainment, unique facts, storytelling)	Not available
	Content Publication	All 30 videos successfully published on TikTok without issues	No content published
Conversion	Publication Consistency	All content includes consistent captions, hashtags, cover images, and call-to-action (CTA)	No publication standard established
	Leads	At least 30 prospective customers register through the TikTok bio link	No leads from TikTok
	Inquiry	At least 10 prospective customers request information about X's services	No inquiries from TikTok
Audience Growth	Sales	Sales increase compared to the period before TikTok implementation	No sales generated from TikTok
	Followers	≥300 organic followers	0 followers
	Content Pillars	At least three content pillars established	No content pillars
	Feed Consistency	TikTok feed consistently follows X's visual identity and content pillars	No TikTok feed
	TikTok Analytics	Performance evaluation conducted using TikTok Analytics	No performance evaluation conducted

Source: Researcher & X Internal Data, 2026.

The pre-project KPI was developed based on the content marketing performance indicators proposed by Sterne (2010), covering the dimensions of reach, engagement, conversion, and audience growth. Since X had not yet established a TikTok account or implemented a structured content marketing strategy, the KPI served as the baseline and evaluation framework for the two-month implementation period. The targets included establishing a TikTok Business account, publishing at least 30 videos, achieving 10,000 video views, generating 800 engagements, obtaining leads and inquiries, increasing sales performance, growing organic followers, developing content pillars, and conducting regular evaluations using TikTok Analytics.



Figure 5. Buyer Persona
Source: Researcher & X Owner, 2026

The buyer persona identified X's primary target audience as "Digital Learners," consisting mainly of students and fresh graduates aged 18–24 who actively use TikTok and are interested in artificial intelligence, digital technology, productivity, content creation, and self-development. The analysis revealed that these users preferred concise and practical educational content but often experienced difficulties in understanding AI concepts and selecting appropriate AI tools. This finding was reinforced by the Staff Marketing interview, who stated, "Most prospective customers want to learn AI in a simple way. They are more interested when the material is delivered through short videos that directly demonstrate practical applications." The buyer persona subsequently guided the development of communication style, content themes, and educational approaches throughout the project.



Figure 6. SMART Framework

Source: Researcher, 2026

The SMART framework established clear and measurable project objectives by positioning TikTok as X's educational platform for AI-related content. The implementation targeted the publication of 30 videos, the acquisition of 300 followers, 10,000 video views, 800 engagements, and at least 30 link clicks within a two-month period. These objectives were considered achievable through the integration of artificial intelligence into every stage of content production, including ideation, scriptwriting, visual creation, captions, and optimization. The goals were directly aligned with the project's objective of improving digital marketing effectiveness, increasing brand awareness and engagement, and supporting X's sales potential. The content strategy was formulated based on the results of the SWOT analysis, TOWS matrix, Value Proposition Canvas, buyer persona, and KPI targets. The strategy positioned X as an educational TikTok account delivering simple, informative, and engaging AI-related content and interesting facts through short-form videos.

Table 6. Positioning Content

Component	Description
Content Positioning	X is positioned as an educational account that delivers simple, informative, and engaging content to help audiences understand unique facts from around the world through short-form TikTok videos. The primary objective of this positioning is to establish X as a credible yet accessible source of knowledge, supported by a creative and memorable visual style.
Positioning Characteristics	1. Educational yet entertaining 2. Strong and consistent visual identity 3. Simple, easy-to-understand language 4. Focus on unique facts relevant to everyday life

Source: Researcher & X Internal Data, 2026.

This positioning reflected the owner's vision, who explained, "*We want X to be recognized as an account that creates impact and provides new knowledge, allowing audiences to experience value before being introduced to our services.*" The strategy was further supported by four content pillars emphasizing educational value while maintaining audience engagement.

Table 7. Content Pillars

Content Pillar	Percentage	Description
Unique Facts	60%	Interesting facts about technology, the internet, history, and science presented through visual storytelling.
Storytelling	25%	Inspiring stories, illustrations, and real-life events that spark audience curiosity and

Entertainment	10%	empathy. Light, trend-driven, and humorous content that remains relevant to AI and digital education themes.
Promotion	5%	Soft-selling content promoting webinars, online courses, and X's services without disrupting the overall content flow.

Source: Researcher, 2026.

Video production followed TikTok's vertical format with approximately one-minute durations and adopted a Clay Animation visual style to create a distinctive and memorable brand identity.

Table 8. Content Format

Aspect	Description
Platform	TikTok
Video Aspect Ratio	9:16 (Vertical)
Video Duration	Approximately 1 minute
Visual Style	Clay Animation
Visual Objective	To create a unique, soft, and memorable visual impression.

Source: Researcher & X Internal Data, 2026.

Each video was structured into three sequential sections consisting of a hook, main content, and call-to-action.

Table 9. Video Structure

Section	Duration	Description
Hook	0–3 seconds	An opening statement designed to capture the audience's attention and spark curiosity.
Content	3–50 seconds	A concise, informative, and easy-to-understand presentation of the main topic.
Call to Action (CTA)	50–60 seconds	An invitation for viewers to follow, like, or join X's programs.

Source: Researcher, 2026.

To strengthen visual consistency, the content utilized blue, white, and purple color schemes, Poppins or Montserrat fonts, minimalist layouts, and clay-style illustrations.

Table 10. Visual Characteristics

Element	Description
Dominant Colors	Blue, White, and Purple
Font	Poppins / Montserrat
Layout	Minimalist and clean
Supporting Elements	Flat icons and connecting lines between visual elements

Source: Researcher & X Internal Data, 2026.

Artificial intelligence was integrated throughout the content production workflow, including content ideation, topic research, visual prompt generation, illustration production, caption writing, hashtag optimization, and performance evaluation.

Table 11. AI-Driven Content Creation

Stage	AI Utilization
Ideation	AI is used to generate content ideas based on audience interests and current trends.
Topic Research	AI analyzes data and keywords to identify relevant content topics.
Visual Prompt Development	AI generates visual prompts to ensure consistent Clay-style illustrations.
Illustration Production	AI creates visual elements using the Clay Animation style.
Caption & Hashtag Creation	AI optimizes captions and hashtags to increase content reach.
Performance Evaluation	AI analyzes content performance to support the development of future content strategies.

Source: Researcher, 2026.

Content distribution was planned over a two-month implementation period with a total of 36 TikTok videos. Upload schedules, audience interaction within 24 hours, and continuous monitoring through TikTok Analytics were incorporated to maximize reach and engagement.

Table 12. Content Distribution

Aspect	Description
Implementation Period	2 months
Number of Content Pieces	36 TikTok videos
Objective	Build brand awareness, increase engagement, and support the sales potential of X Company's services.
Posting Time	Between 07:00 and 21:00
Interaction Strategy	Respond to audience interactions within 24 hours to improve engagement.
Evaluation	Content performance is analyzed to assess the effectiveness of the content strategy and identify areas for improvement.

Source: Researcher, 2026.

Table 12 shows that the content distribution strategy was systematically designed to support the implementation of X Company's TikTok content marketing over a two-month period. A total of 36 videos were scheduled for publication during peak user activity hours to maximize reach and audience engagement. In addition, responding to audience interactions within 24 hours was intended to strengthen communication and foster stronger relationships with followers. Continuous performance evaluation using TikTok Analytics enabled the effectiveness of the content strategy to be monitored and refined based on audience responses. Overall, this distribution strategy served as a guideline for ensuring consistent content delivery while supporting the objectives of increasing brand awareness, engagement, and the sales potential of X Company's services.



Figure 7. Content Guideline

Source: Researcher, 2026.

The Content Guideline established a standardized workflow for content production, beginning with content ideation using ChatGPT, followed by voice-over generation through Google AI Studio, illustration creation with Leonardo AI, video production using Seedance 1.0 Pro, visual enhancement with Nano Banana Pro, video editing in Canva, caption development through ChatGPT, and finally publication and performance evaluation using TikTok Analytics. This guideline ensured consistency in visual identity, communication style, production quality, and the systematic integration of artificial intelligence while maintaining the researcher's role in strategic decision-making. It became the operational foundation for implementing the TikTok content marketing strategy before proceeding to the project implementation stage.

4.1.5 Project Implementation

The project implementation stage translated the previously developed planning into practice using the established Key Performance Indicators (KPI), buyer persona, SMART objectives, Content Strategy Design, and Content Guideline. The implementation was conducted over two months and focused on establishing a new TikTok-based digital marketing channel for Company X through account creation, content calendar preparation, AI-assisted content production, and content publication. The first implementation stage involved creating the official TikTok account for Company X, as the initial analysis revealed that the company previously relied solely on Facebook Ads and had no TikTok presence. The account was optimized with a consistent username, business profile, logo, company description, WhatsApp link, and TikTok Business features to enable analytics.

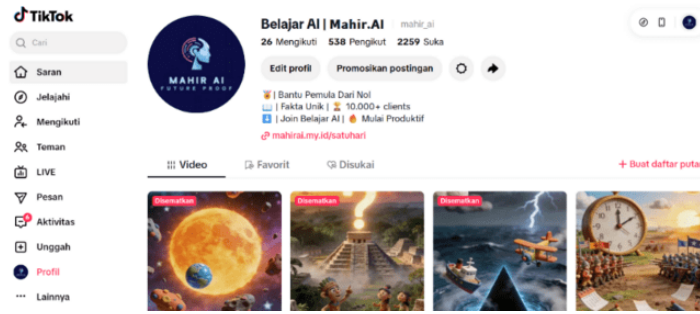


Figure 8. TikTok Account of Company X
Source: TikTok Company X, 2026

The optimized profile served not only as a content distribution channel but also as the starting point of the customer journey by directing users to the company's landing page. According to the Marketing Manager: *"Before the project implementation, our marketing activities mainly focused on Facebook Ads, so Company X did not have a platform to build an organic audience."* The account successfully established a new digital marketing channel that supported brand awareness, audience engagement, and future sales potential. The next step is to develop a content calendar to serve as a guide for content publication during the capstone project. A content calendar was developed to organize publication schedules, themes, content pillars, posting times, and implementation status. The calendar was prepared based on the Content Strategy Design, buyer persona, and KPI established during the planning stage.

NO	Tanggal Perencanaan	Tema/Topik	Content Pillar	Jam Upload	Status	Link
1	01/04/2026	Hutan Hujan Amazon	Edukasi Story Telling	18.01 - 21.00	Selesai	https://www.tiktok.com/@
2	03/04/2026	Gunung Api	Edukasi Story Telling	12.01 - 15.00	Selesai	https://www.tiktok.com/@
3	05/04/2026	Kenapa Air Laut Asin	Edukasi Story Telling	15.01 - 18.00	Selesai	https://www.tiktok.com/@
4	06/04/2026	Kenapa Pelangi Bisa Muncul	Edukasi Story Telling	18.01 - 21.00	Selesai	https://www.tiktok.com/@
5	08/04/2026	Es Kutub yang Mencair	Edukasi Story Telling	07.00 - 09.00	Selesai	https://www.tiktok.com/@
6	09/04/2026	Segitiga Bermuda	Edukasi Hiburan	18.01 - 21.00	Selesai	https://www.tiktok.com/@
7	12/04/2026	Hewan yang Bisa Tidur 3 Tahun	Fakta Unik Semua	09.01 - 12.00	Selesai	https://www.tiktok.com/@
8	13/04/2026	Gurita punya 3 Jantung	Fakta Unik Semua	15.01 - 18.00	Selesai	https://www.tiktok.com/@
9	15/04/2026	Panjang Leher Jerapah	Fakta Unik Semua	12.01 - 15.00	Selesai	https://www.tiktok.com/@
10	18/04/2026	Axolotl	Fakta Unik Semua	18.01 - 21.00	Selesai	https://www.tiktok.com/@
11	19/04/2026	Hewan yang Bisa Kamufase	Fakta Unik Semua	07.00 - 09.00	Selesai	https://www.tiktok.com/@
12	21/04/2026	Burung Flamingo	Fakta Unik Semua	18.01 - 21.00	Selesai	https://www.tiktok.com/@
13	23/04/2026	Lubang Hitam	Story Telling Fakta	12.01 - 15.00	Selesai	https://www.tiktok.com/@
14	24/04/2026	Planet Saturnus	Story Telling Fakta	15.01 - 18.00	Selesai	https://www.tiktok.com/@
15	27/04/2026	Planet Hujan Berlian	Story Telling Fakta	15.01 - 18.00	Selesai	https://www.tiktok.com/@
16	29/04/2026	Astronot Kenapa Bisa Melayar	Story Telling Fakta	18.01 - 21.00	Selesai	https://www.tiktok.com/@

Figure 9. Content Calendar
Source: Prepared by the Researcher, 2026

The content calendar included diverse educational topics such as technology, science, natural phenomena, and unique facts, tailored to the interests of the target audience. Different posting time slots (07.00–21.00) were also tested to identify the most effective publishing schedule using TikTok Analytics. The Marketing Manager stated: *"Before this capstone project, Company X did not have a structured content plan, so digital marketing activities were irregular."* The content calendar successfully improved publication consistency and served as an operational guide throughout the project. Following the content calendar, a total of 36 educational TikTok videos were produced using AI technologies in accordance with the Content Guideline. Each video adopted a Clay Animation style, vertical 9:16 format, and approximately one-minute duration.

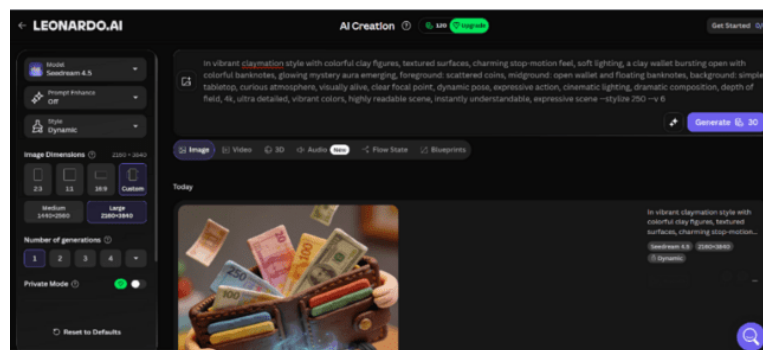


Figure 10. One Stage of the Content Production Process
Source: Leonardo AI, 2026

The production process incorporated AI tools for idea generation, script writing, voice-over creation, illustration, video generation, and editing. Each video followed a standardized structure consisting of a hook, main content, and call-to-action while maintaining consistent visual identity. According to the Marketing Staff: *"The use of AI accelerated content ideation and production, allowing more consistent publishing without reducing content quality."* As a result, all 36 videos were produced according to schedule with consistent quality and branding. The final implementation stage involved publishing all 36 TikTok videos according to the content calendar. Each post included AI-generated captions, relevant hashtags, and clear call-to-action elements while maintaining consistent Clay Animation visuals and branding.



Figure 11. Content Publication
Source: TikTok Company X, 2026

The researcher also actively responded to audience comments to increase engagement and strengthen relationships with followers. The Marketing Manager explained: *"Publishing content consistently represents a significant improvement compared to the period before the capstone project."* Overall, all planned content was successfully published, resulting in a structured TikTok content portfolio for Company X. This implementation became the foundation for the subsequent evaluation using TikTok Analytics to measure reach, engagement, and the contribution of TikTok content marketing to the company's sales potential.

4.1.6 Project Evaluation

The evaluation phase aims to measure the effectiveness of implementing the AI-driven TikTok content marketing strategy at Company X. The evaluation was conducted through an analysis of TikTok Analytics, sales records, observations, and interviews, focusing on content performance, ad performance, revenue growth, a comparison of conditions before and after the project, and the achievement of Key Performance Indicators (KPIs). The evaluation results serve to assess the strategy's contribution to enhancing digital marketing efforts and sales potential. Content performance evaluation was conducted using TikTok Analytics, utilizing indicators such as video views, reach, profile views, followers, engagement, and audience response. The objective was to determine the strategy's effectiveness in increasing account visibility and reaching the target market.



Figure 12. Content Performance
Source: Company X TikTok Analytics, 2026.

Table 13. Content Performance

No.	Publication Date	Theme/Topic	Content Pillar	Views	Likes	Favorites	Shares
1	01/04/2026	Amazon Rainforest	Education, Storytelling, General	119	6	4	4
2	03/04/2026	Volcanoes	Education, Storytelling, General	148	6	4	3
3	05/04/2026	Why Is Seawater Salty?	Education, Storytelling, General	238	6	4	4
4	06/04/2026	Why Do Rainbows Appear?	Education, Storytelling, General	121	6	4	4
5	08/04/2026	Melting Polar Ice	Education, Storytelling, General	295	26	5	5
6	09/04/2026	Bermuda Triangle	Education, Entertainment, General	4,775	244	6	4
7	12/04/2026	Animals That Can Sleep for 3 Years	Fun Facts, General	1,269	113	6	2
8	13/04/2026	Octopuses Have Three Hearts	Fun Facts, General	252	6	4	3
9	15/04/2026	The Length of a Giraffe's Neck	Fun Facts, General	221	6	4	2
10	18/04/2026	Axolotl	Fun Facts, General	311	16	4	2
11	19/04/2026	Animals That Can Camouflage	Fun Facts, General	1,252	192	6	2
12	21/04/2026	Flamingos	Fun Facts, General	231	6	4	2
13	23/04/2026	Black Holes	Storytelling, Fun Facts, General	230	6	4	3
14	24/04/2026	Planet Saturn	Storytelling, Fun Facts, General	224	6	4	3
15	27/04/2026	The Diamond Rain Planet	Storytelling, Fun Facts, General	265	16	4	3
16	29/04/2026	Why Can Astronauts Float in Space?	Storytelling, Fun Facts, General	230	7	4	3
17	30/04/2026	The Missing Galaxy	Storytelling, Fun Facts, General	247	6	4	3
18	02/05/2026	What If the Earth Stopped Rotating for One Second?	Storytelling, Fun Facts, General	270	6	4	3
19	05/05/2026	Why Is Yawning Contagious?	Storytelling, Fun Facts, General	1,222	112	6	3
20	06/05/2026	How Big Is the Sun?	Fun Facts, Education	10,209	900	98	41
21	07/05/2026	The Brain Is Active During Sleep	Fun Facts, Education	296	6	4	3
22	08/05/2026	Blinking Thousands of Times a Day	Fun Facts, Education	292	6	4	3
23	10/05/2026	Artificial Intelligence	Fun Facts, Education	209	6	6	3
24	12/05/2026	The Strange Side of the Internet	General, Education	1,248	112	4	2
25	14/05/2026	Robots and Humans	General, Education	291	6	4	3
26	16/05/2026	The First Smartphone	General, Education	289	6	4	2
27	17/05/2026	What If the Internet Stopped Working for One Day?	General, Education	314	6	4	3
28	18/05/2026	How Does Your Phone Know Your Location?	General, Education	284	6	4	2
29	20/05/2026	Atlantis: The Lost Legendary City	General, Education	230	6	4	3
30	21/05/2026	Egyptian Pyramids	Entertainment, Storytelling, General	235	6	4	3
31	23/05/2026	The Great Wall of China	Entertainment, Education, General	221	6	6	3
32	25/05/2026	Titanic Before It Sank	Education, Storytelling, General	1,229	119	5	3

33	26/05/2026	Who Invented the Light Bulb?	Education, Storytelling, General	230	7	4	3
34	28/05/2026	The War That Lasted Less Than One Hour	Education, Storytelling, General	226	6	4	3
35	30/05/2026	Maya Civilization	Fun Facts, Storytelling, General	4,813	257	7	7
36	31/05/2026	8 Billion People Have Unique Fingerprints	Fun Facts, Storytelling, General	341	6	4	2
TOTAL				32,877	2,259	255	147
AVERAGE				913	63	7	4

Source: Processed by the researcher, 2026.

During the project implementation, 36 pieces of content were successfully published, garnering a total of 32,877 views, 2,259 likes, 255 favorites, and 147 shares, averaging 913 views, 63 likes, 7 favorites, and 4 shares per post. The top-performing content pieces were "*How Big is the Sun?*" (10,209 views), followed by "*Mayan Civilization*" (4,813 views) and "*Bermuda Triangle*" (4,775 views). These results indicate that content featuring unique facts, storytelling, and curiosity-inducing phenomena elicited a stronger response. Initially, content performance was relatively low because the account was new. consistent posting, the use of clay animation visuals, and the presentation of AI-assisted educational content were associated with increased reach and audience interaction. Interviews with marketing staff revealed that following the publication of the content, the account began to see an increase in views, interactions, and profile visits. Overall, the content marketing strategy successfully increased Company X's digital exposure.

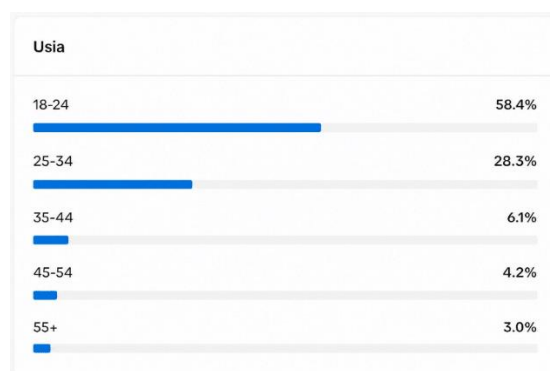


Figure 13. Age of Audience Reached by Content

Source: Company X TikTok Analytics, 2026.

Demographic data shows that the majority of the audience falls within the 18–24 age group (58.4%), followed by the 25–34 age group (28.3%), while other age groups represent less than 10%. These results align with the buyer persona, which targets university students, fresh graduates, and young individuals interested in Artificial Intelligence and digital technology. This indicates that the audience reached was broadly aligned with the intended target audience. Paid promotions were conducted via TikTok Ads by selecting content with the best organic performance, thereby ensuring more effective budget utilization.

Table 14. Ad Performance

Metric	How Big Is the Sun?	Bermuda Triangle
Content Type	Video Content	Video Content
Ad Duration	7 Days	2 Days
Budget	IDR 240,000	IDR 85,000
Views	10,209	4,778
Engagement	1,053	255
Campaign Objective	More Conversions	More Traffic

Source: Processed by the researcher, 2026.

Two pieces of content were promoted: "*How Big is the Sun?*" (7 days; IDR 240,000; objective: More Conversions) and "*Bermuda Triangle*" (2 days; IDR 85,000; objective: More Traffic). The results demonstrate that content with high organic performance also yields good results when promoted through paid advertisements. Based on an interview with the Marketing Manager, promotions were limited to the best-performing content to ensure budget efficiency. Thus, TikTok

Ads served as a supporting strategy that expanded reach and increased user interaction with Company X's account. Revenue trends were evaluated by comparing income before and after the implementation of the TikTok content marketing strategy.

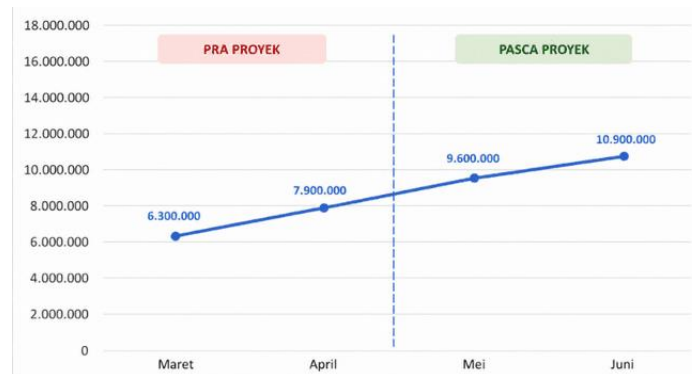


Figure 14. Sales Revenue Graph for the Last 4 Months

Source: Processed by the Researcher/Owner of Company X, 2026.

Prior to the project (March–April 2026), revenue stood at Rp14,256,000; following implementation (May–June 2026), it rose to Rp20,493,000, an increase of Rp6,237,000 (43.75%). This increase was observed following the implementation of an integrated strategy comprising initial analysis, buyer persona development, AI-assisted content production, consistent publishing, and TikTok Ads optimization. However, the increase cannot be attributed solely to AI-assisted TikTok content because other promotional activities, particularly Facebook Ads, continued during the implementation period. According to marketing staff, the use of TikTok led to an uptick in customer inquiries, WhatsApp visits, and transactions originating from the platform. This indicates that TikTok has emerged as a new marketing channel contributing to increased sales for Company X. The comparison was conducted using sales growth indicators as defined by Kotler & Keller (2016).

Table 15. Project Comparison

Sales Performance Indicator (Kotler & Keller, 2016)	Pre-Project	Post-Project	Change
Number of Transactions	144 Transactions	207 Transactions	+63 Transactions (+43.75%)
Total Revenue	IDR 14,256,000	IDR 20,493,000	+IDR 6,237,000 (+43.75%)
Number of Sales from TikTok	0	55 Sales	+55 Sales
Number of TikTok Leads	0	29 Leads	+29 Leads
TikTok Contribution Rate	0%	26.57%	+26.57%

Source: Processed by the Researcher, 2026.

All indicators showed improvement following the project's implementation. The number of transactions rose from 144 to 207 (a 43.75% increase), while revenue grew from IDR 14,256,000 to IDR 20,493,000. Additionally, TikTok generated 55 sales and 29 leads, contributing 26.57% to total sales. These results demonstrate that TikTok not only boosted brand awareness but also successfully generated leads and sales conversions, making a tangible contribution to improving Company X's marketing performance. KPI evaluation was conducted based on Reach, Engagement, Conversion, and Audience Growth indicators, referencing Sterne (2010).

Table 16. Post-Project KPIs

Content Performance Indicator (Sterne, 2010)	TikTok Metric	Key Performance Indicator (2-Month Implementation Target)	Post-Project Result	Status
Reach	TikTok Account	X Company TikTok Business account is created	X Company TikTok Business account was successfully created and actively used	Achieved
	Account Profile	Complete and optimized account profile (profile photo, username, bio, WhatsApp link, business category)	Profile was fully completed (profile photo, username, bio, WhatsApp link, business category)	Achieved

Engagement	Number of Content Posts	At least 30 TikTok videos produced and published	36 videos were successfully published	Achieved
	Video Views	≥10,000 total views	32,877 total views	Achieved
	Target Audience	Buyer persona and audience segmentation documented	Buyer persona and audience segmentation were successfully developed as the basis for content creation	Achieved
	Engagement	≥800 total engagements (likes, comments, shares, saves)	Approximately 1,050 total engagements (likes, comments, shares, and saves)	Achieved
	Audience Response	All comments and messages responded to within 24 hours	All customer comments and messages were responded to within 24 hours	Achieved
	Content Quality	All content produced using AI in accordance with the content guidelines	All content was produced using AI following the established content guidelines	Achieved
	Content Variety	At least four content formats	Educational, Entertainment, Fun Facts, and Storytelling content were successfully published	Achieved
Conversion	Content Publishing	All 30 planned content pieces successfully published on TikTok without issues	36 content pieces were successfully published according to the content calendar	Achieved
	Publishing Completeness	All content includes consistent captions, hashtags, cover images, and calls-to-action (CTA)	All content followed consistent publishing standards	Achieved
	Leads	At least 30 prospective customers register through the TikTok bio link	84 leads were generated through TikTok	Achieved
	Inquiries	At least 10 prospective customers request information about X Company services	29 prospective customers contacted the business via WhatsApp	Achieved
Audience Growth	Sales	Increase in sales compared to the period before TikTok implementation	Revenue increased by IDR 6,237,000 after the project implementation	Achieved
	Followers	≥300 organic followers	538 followers	Achieved
	Feed Consistency	TikTok feed consistently reflects X Company's visual identity and content pillars	The TikTok feed consistently followed X Company's visual identity	Achieved
	TikTok Analytics	Performance evaluation conducted using TikTok Analytics	Content performance was monitored and evaluated using TikTok Analytics	Achieved

Source: Processed by the researcher, 2026.

All KPI targets were successfully met. Regarding reach, a TikTok Business account was created and optimized; 36 pieces of content were published, and total views reached 32,877, exceeding the target of 10,000 views. In terms of engagement, interaction levels surpassed targets; all comments received responses within 24 hours, all content was produced using AI, and content variety and publication standards were successfully implemented. Regarding conversion, TikTok generated 84 leads and 29 inquiries via WhatsApp, alongside a revenue increase of approximately IDR 6.3 million. In terms of audience growth, the account gained 538 organic followers, surpassing the target of 300, supported by a consistent feed and regular evaluation via TikTok Analytics. Overall, the implementation of an AI-based content marketing strategy successfully enhanced digital visibility, expanded audience reach, boosted interaction, generated leads and sales, and supported revenue growth for Company X. Furthermore, the project established a more structured digital marketing system, incorporating buyer personas, content guidelines, content calendars, and TikTok Analytics-based evaluations, that can be utilized on an ongoing basis. Although all KPIs have been met, Company X is advised to maintain consistent publishing, conduct periodic evaluations using TikTok Analytics, develop AI-driven content variations, and expand content

distribution to other platforms, such as Instagram Reels and YouTube Shorts, to ensure continued growth in market reach and sales contribution. Overall, the implementation of AI-based TikTok content marketing has successfully contributed positively to increased sales and the achievement of the research objectives.

4.2 Discussion

The integration of AI in content production has proven to help MSME X overcome limitations in human resources, time, and content production capacity. By incorporating AI into the content workflow, processes such as idea generation, script development, and content optimization became more efficient. Although AI reduced repetitive production tasks and supported a more consistent production process through the use of content calendars and standardized visual identities, strategic decisions remained under human control. This indicates that AI functions primarily as an augmentation mechanism to enhance production efficiency rather than as a replacement for human strategic decision-making. These findings align with previous research that highlights AI's potential to improve marketing content production efficiency among MSMEs. Additionally, TikTok successfully served as a new organic marketing channel for MSME X, achieving predefined targets for content volume, views, engagement, followers, and leads. The predominance of educational content was appropriate for MSME X's edutech positioning, attracting audiences before introducing more direct promotional messages. The variation in performance among individual videos indicates that TikTok's effectiveness was influenced by the characteristics of the content itself. TikTok also contributed as an important customer touchpoint, generating inquiries related to purchases. However, the increase in sales should be interpreted cautiously, as although there was a rise in transactions and revenue during the implementation period, other factors may have contributed as well. Overall, the observed relationships in this study suggest that AI improved the efficiency and consistency of content production, TikTok expanded audience reach and engagement, audience interactions generated leads, and multiple marketing and sales touchpoints contributed to transactions and revenue.

5 | CONCLUSIONS AND FUTURE WORK

Based on the implementation of the capstone project, it can be concluded that the application of AI-assisted TikTok content marketing was associated with improvements in the digital marketing performance of MSME X and supported the development of TikTok as a new marketing channel. Before the implementation, MSME X relied primarily on Facebook Ads and had not utilized TikTok as an organic marketing channel. The implementation involved the development of buyer personas, KPIs, SMART goals, content strategies, and content guidelines, followed by the production and publication of 36 AI-assisted content pieces over a two-month period. During the implementation, the TikTok account generated 538 followers, 32,877 views, 84 leads, 29 inquiries, and 55 sales attributed to TikTok based on the project's tracking data. The implementation period was also accompanied by an increase in business performance, with total transactions increasing from 144 to 207 and revenue increasing from IDR 14,256,000 to IDR 20,493,000, representing an increase of 43.75%. These findings indicate that TikTok became a relevant marketing and sales-related channel for MSME X during the implementation period. The findings are consistent with Pulizzi's (2014) content marketing perspective, which emphasizes the importance of relevant and consistent content in building audience relationships and supporting business objectives. The implementation also demonstrates the potential of Artificial Intelligence to improve the efficiency and consistency of content production. However, the observed increase in transactions and revenue cannot be attributed exclusively to AI-assisted TikTok content marketing because Facebook Ads and other marketing and sales activities continued during the implementation period. Therefore, the findings should be interpreted as an association between the implementation and improved marketing and sales indicators rather than evidence of a direct causal effect. In addition, the short implementation period and focus on a single MSME limit the generalizability of the findings.

Based on the findings, MSME X is recommended to maintain consistent TikTok content publication according to the established content calendar and conduct periodic evaluations of views, engagement, followers, leads, inquiries, and sales to identify content with stronger audience and conversion potential. The use of Artificial Intelligence should be continuously optimized to support ideation, scripting, caption development, and other repetitive production tasks, while strategic decisions and content evaluation remain under human control. To strengthen the contribution of social media to business outcomes, MSME X can further integrate TikTok with other short-form content platforms, such as Instagram Reels and YouTube Shorts, and improve the conversion pathway from social media to purchase through WhatsApp, landing pages, and lead magnets. These efforts should be accompanied by consistent tracking of customer sources and conversions to better evaluate the contribution of each marketing channel. For future research, a longer implementation period and a larger number of MSMEs are recommended to improve the generalizability of the findings. Future studies may also employ a mixed-methods or quantitative research design with stronger comparison groups or longitudinal data to examine the relationship between AI-assisted content production, content performance, audience engagement, lead generation, conversion,

and sales outcomes more rigorously. Such an approach would provide stronger evidence regarding the extent to which AI-assisted TikTok content marketing contributes to business performance while accounting for the influence of other marketing activities.

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