ANALYSIS OF GAME THEORY IN MARKETING STRATEGIES OF TIKTOK AND INSTAGRAM

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ABSTRACT

The rise of social media platforms like Instagram and Tiktok has had a profound impact on the business landscape, leading to a significant increase in e-commerce activities. This study focuses on examining the marketing strategies of Instagram and Tiktok using the 7P framework, which includes Product, Price, Promotion, Place, People, Physical evidence, and Process. Understanding these strategies is crucial for businesses aiming to enhance their online presence and drive sales.The study employed purposive sampling and collected data through questionnaires from individuals who frequently used Instagram and Tiktok for shopping. Validity was assessed using Karl Pearson's product-moment correlation, while reliability was evaluated using Cronbach's alpha. The data was then analyzed using Game Theory to identify optimal strategies.The findings highlight the significance of the "Place" element in the marketing strategies of Instagram and Tiktok. Both platforms prioritize user-friendly interfaces, secure and timely deliveries, and convenient product selection. The Game Theory analysis revealed a saddle point value of 2, indicating that the implemented strategies are effective in maximizing profits and minimizing losses. This research provides valuable insights into the marketing strategies of Instagram and Tiktok, demonstrating the relevance of the 7P framework and Game Theory in driving successful online businesses. By implementing these strategies, businesses can improve their competitiveness, attract a broader customer base, and thrive in the dynamic digital market. Understanding the effective marketing approaches employed by Instagram and Tiktok serves as a practical guide for aspiring entrepreneurs and existing businesses to navigate the realm of e-commerce and achieve sustainable growth.

Keywords: *Social Media, 7P Framework, Game Theory, Marketing Strategies*

1. INTRODUCTION

The development of information technology in the business world continues to advance, leading to the utilization of the internet as one of the outcomes of information technology development for business activities. Nowadays, there are no longer any limitations in terms of space and time in the trading world, and entrepreneurs are expected to provide services and products quickly and accurately [1]. The current development of information technology enables consumers to access the internet anywhere, reflecting their instant lifestyle.

Indonesia has a large population of internet users, with over 204.7 million as of January 2022. This has led to companies utilizing internet technology to improve their services and provide convenience to consumers. One of the most popular platforms used by internet users is social media, which is an integral part of the internet. Social media platforms, built on Web 2.0 technology, are widely used for communication and accessing information.

In this modern era, social media is also used in the economic sector, particularly in marketing [2]. Social media itself differs from other marketing communication media in that it is

"Always on and Everywhere," allowing it to be accessed anytime and anywhere [3]. Besides being accessed via computers, social media can also be accessed using smartphones, providing businesses with opportunities to market their products on social media [4].

Instagram is a social media platform with the second-highest number of active users, reaching 1.16 billion, after Facebook. It is primarily used for uploading photos and videos but has evolved into a platform for businesses to promote and sell their products [5]. A study conducted by Simply Measured revealed that 54% of companies with well-known brands use Instagram as a platform to promote their products [6].

In addition to Instagram, there is another rapidly growing social media platform called TikTok. It was first launched in September 2016 and originated from China. TikTok is the fastest-growing social media platform in the world. Within the past four years since its launch, TikTok has experienced an explosion in popularity, with 500 million active users worldwide by the end of 2019. TikTok has become a widely used digital marketing platform for business users [7]. In Indonesia, TikTok is extensively utilized for digital marketing purposes, such as product promotions and showcasing places and cafes.

Instagram and TikTok have emerged as social media platforms that are increasingly involved in the business sector, evident from the introduction of Instagram Shop and TikTok Shop features. This integration of e-commerce functionality within these platforms has opened up new opportunities for businesses to directly engage with their target audience and drive sales [8]. In light of this development, it has become crucial to investigate and analyze the marketing strategies employed by Instagram and TikTok, specifically focusing on the implementation of the 7Ps (Product, Price, Promotion, Place, People, Physical evidence, and Process) marketing mix framework. Understanding how these platforms utilize product, price, place, promotion, people, process, and physical evidence can significantly contribute to enhancing sales volume and overall business success [9].

The utilization of the 7Ps marketing mix framework allows businesses to effectively structure their marketing strategies on Instagram and TikTok [10]. Starting with product, companies can leverage the visual nature of these platforms to showcase their offerings, whether it be physical products or digital services [11]. By curating visually appealing and engaging content, businesses can captivate the attention of their target audience and create a desire for their products [12].

By analyzing the marketing strategies employed by Instagram and TikTok through the lens of the 7Ps marketing mix, businesses can gain valuable insights into effective practices and techniques to enhance their own marketing efforts on these platforms [13]. This research aims to serve as a benchmark and guide for entrepreneurs and aspiring business owners looking to establish and optimize their online stores on Instagram and TikTok.

2. LITERATURE STUDIES

This article seeks to leverage game theory techniques to optimize decision-making in service marketing, drawing from existing literature reviews. The research gathered relevant literature and examined the connection between game theory and the elements of the marketing mix – namely, product, price, place, and promotion – within the telecommunications industry. By applying game theory techniques such as the prisoner's dilemma, Cournot model, Bertrand model, quasi-game model, and Stackelberg model to guide marketing decisions, the article highlights a consensus among scholars that these methods enhance decision-making regarding product offerings, pricing strategies, promotional activities, and distribution in the service sector. Furthermore, the study introduced an integrated marketing mix model to underpin its findings [14]. The study supports previous research, which is the use of game theory techniques to reveal consumer preferences. The noticeable difference is that this research aims to understand the effective marketing approaches employed by Instagram and TikTok, whereas previous research was more focused on examining various suitable models as approaches in decision-making using the 7P Framework.

The paper conducted a comprehensive examination of various strategies in game theory, with a particular focus on how these strategies are applied in economic decision-making, using both theoretical explanations and numerical examples. These accomplishments were the result of a thorough exploration of game theory's fundamental concepts, its underlying assumptions, the categorization of competitive environments, the historical context, and the limitations inherent in game theory. Different types of strategies within game theory and their practical use in decision-making were elucidated through suitable concepts and numerical instances. Additionally, the paper

elucidated and supported equilibrium concepts in game theory with pertinent examples. It was further established that the concept of Nash Equilibrium holds significant relevance and consistency within game theory, especially in the realms of dominant strategy, mixed strategy, and the Prisoner's Dilemma. For example, in the context of the Prisoner's Dilemma, the objective is to modify the game structure in such a way that the outcome mutually beneficial to all parties becomes a Nash Equilibrium. This necessitates that a business, functioning as an economic entity, must actively pursue a competitive edge by reducing its product's susceptibility to pricing fluctuations by rival firms, distinguishing its product through design enhancements, services, or advertising, seeking cost advantages, and cultivating distinctive distribution channels [15]. The research supports the ongoing study, which is the use of mixed strategies as a component in game theory analysis.

3. METHODS

The stages of the method carried out in this study are divided into several stages. The stages can be seen as in Figure 1.
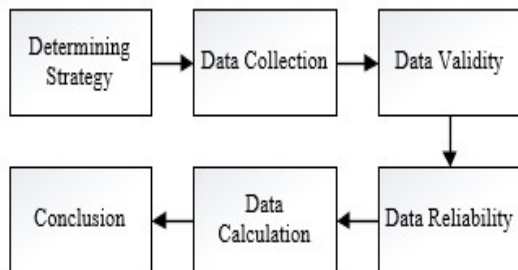

Figure 1: Determining the strategy

The research methodology shown as Figure 1 employed in this study was quantitative in nature, utilizing a descriptive analysis model. IBM SPSS 25 software was utilized as the primary tool for data analysis. The research process consisted of Strategy Determination, Data Collection, Validity Testing, Reliability Testing, Data Processing, and Conclusion. These stages were followed to ensure the validity and reliability of the findings.

3.1 Determining The Strategy

In this research study, the researcher employed game theory to delve into the profound value of games in shaping marketing strategies between TikTok and Instagram. Game theory serves as a powerful theoretical framework that formulates competitive scenarios between two or more players, guiding them in determining strategic

approaches to outperform their rivals [16]. In this context, the companies TikTok and Instagram serve as the players in this marketing competition. However, it is important to note that game theory transcends the boundaries of economics and finds applications in various fields due to its versatile nature [17].

By utilizing the 7Ps marketing mix framework, the researcher aimed to gain a comprehensive understanding of the integrated marketing strategies implemented by TikTok and Instagram. These variables play a pivotal role in shaping effective marketing campaigns, ensuring the alignment of marketing efforts with target audiences and providing a consumer-centric perspective on what constitutes a successful marketing strategy [18].

Product, as one of the elements within the 7Ps, encompasses the unique offerings and features that TikTok and Instagram provide to their users. The differentiation and innovation in their respective products can significantly impact their competitive positions and influence consumer preferences. Understanding how TikTok and Instagram leverage their product offerings can shed light on their marketing strategies and the value they provide to their user base.

Price, another critical aspect within the marketing mix, reflects the monetary value associated with the usage and benefits of TikTok and Instagram. Determining optimal pricing strategies is crucial for attracting and retaining users while also ensuring profitability. Analyzing the pricing approaches of these platforms can reveal insights into their revenue models, pricing structures, and strategies to entice both users and advertisers.

Promotion involves the various marketing activities employed by TikTok and Instagram to raise awareness, engage users, and drive user adoption. This encompasses influencer partnerships, advertising campaigns, content collaborations, and other promotional tactics employed to amplify their reach and differentiate themselves in a crowded market. Evaluating the promotional strategies of these platforms can provide valuable insights into their efforts to capture and retain user attention.

Place refers to the channels and platforms through which TikTok and Instagram make their services available to users. Both platforms have unique interfaces and accessibility, and analyzing their distribution strategies can reveal how they create user experiences and facilitate user

interactions. Additionally, it can shed light on their efforts to expand their user base globally and cater to the diverse needs of their users.

People, as a component of the marketing mix, highlights the significance of human interactions and relationships in driving the success of TikTok and Instagram. Examining how these platforms engage with their users, foster community-building, and establish brand loyalty can provide insights into their customer relationship management strategies and their focus on user satisfaction and retention.

Physical evidence encompasses the tangible elements that support the brand image and credibility of TikTok and Instagram. This includes factors such as the quality of visual content, user-generated content, testimonials, and reviews that contribute to establishing trust and credibility among users. Evaluating the physical evidence aspect can provide insights into how these platforms cultivate a positive brand image and reputation.

Process refers to the overall user experience and the efficiency of interactions on TikTok and Instagram. Assessing the ease of use, simplicity of navigation, and the effectiveness of features can provide valuable insights into the platforms' efforts to enhance user satisfaction, streamline processes, and deliver a user experience.

By employing game theory and incorporating the 7Ps marketing mix variables, this research aims to offer a comprehensive analysis of the marketing strategies employed by TikTok and Instagram [19]. The findings from this study can serve as a valuable benchmark and guide for businesses, marketers, and entrepreneurs looking to enhance their marketing strategies on these platforms and tap into their immense user bases.

3.2 Data Collection

Data collection was carried out by distributing questionnaires using the purposive sampling technique, which involves selecting participants based on specific criteria. In this case, the criteria were set to include individuals who had made purchases on both TikTok and Instagram at least five times and were active users of the applications for more than one hour per day. The purposive sampling approach was chosen to ensure that the sample participants had the necessary knowledge and experience related to the research topic [20]. Below is a list of questions for each variable of the 7P marketing mix.

3.2.1 Product
1. TikTok/Instagram offers products with good quality.
2. TikTok/Instagram offers a wide variety of items.
3. TikTok/Instagram displays products according to the image descriptions.
4. TikTok/Instagram provides accurate product descriptions.

3.2.2 Price
1. TikTok/Instagram offers prices that align with the quality of the products.
2. TikTok/Instagram provides affordable prices for their products.
3. The prices on Instagram can compete with the prices on TikTok (and vice versa).
4. TikTok/Instagram offers affordable shipping costs.

3.2.3 Place
1. TikTok/Instagram has an easily understandable application interface.
2. TikTok/Instagram has good internet connectivity speed.
3. TikTok/Instagram has visually appealing color schemes.
4. TikTok/Instagram has a user-friendly search catalog.

3.2.4 Promotion
1. TikTok/Instagram offers promotions that capture attention.
2. The promotions offered on TikTok/Instagram align with the stated details.
3. TikTok/Instagram provides promotional rewards for every purchase.
4. TikTok/Instagram offers various types of promotions.

3.2.5 People
1. Online store owners on TikTok/Instagram provide excellent customer service.
2. Online store owners on TikTok/Instagram respond quickly.
3. Online store owners on TikTok/Instagram pay attention to the products being purchased.
4. Online store owners on TikTok/Instagram use polite language.

3.2.6 Physical Evidence
1. The online store owners on TikTok/Instagram deliver goods in good condition.
2. The online store owners on TikTok/Instagram deliver goods with secure and neat packaging.

3. The online store owners on TikTok/Instagram deliver goods according to customer's orders.
4. The products on TikTok/Instagram have good durability.

3.2.7 Process

1. The service process provided by the online store owners on TikTok/Instagram is relatively fast.
2. The transaction process on TikTok/Instagram is easy and convenient.
3. The process of delivering goods is relatively fast and secure.
4. The process of selecting products on TikTok/Instagram is comfortable and quick.

In this study, we used the Slovin formula to determine the sample size needed to represent the residents of South Tangerang. We aimed for a 10% margin of error, which means that the data collected would be within 10% of the true population values.

The Slovin formula is a common method to calculate an appropriate sample size in survey research. By choosing a 10% margin of error, we sought a reasonable balance between accuracy and practicality in data collection.

The selection of South Tangerang as the target population was driven by the need to gain insights into the opinions, behaviors, and preferences of the residents in this specific geographical area. By focusing on a particular population, the study aimed to capture localized insights and ensure the findings were relevant and applicable to the target audience.

With the determined sample size, we ensured that the data collected could provide meaningful and reliable conclusions for our research objectives, while taking into account time and resource constraints. By employing sound sampling techniques, we aimed to minimize biases and enhance the validity of the study's findings. The formula is as follows (1):

$$n = \frac{N}{1+Ne^2} \qquad (1)$$

Where:
n = number of samples
N = population size
e = margin of error

In the Slovin formula, there are certain provisions as follows: The value of e is 0.1 (10%) for a large population.
n = N / (1 + (N x e2))
n = 1.354.350 / (1 + (1.354.350 x 0.102))

n = 1.354.350 / (1 + (1.354.350 x 0.01))
n = 1.354.350 / (1 + (13.543,5))
n = 1.354.350 / 13.544,5
n = 99,99269 respondent

Based on the calculation using the Slovin formula, the number of respondents is 99.99, rounded up to 100 respondents. The scale used for measurement was a Likert scale ranging from one to five, with each score representing a specific category: one indicating "Strongly Disagree" (SD), two indicating "Disagree" (D), three indicating "Neutral" (N), four indicating "Agree" (A), and five indicating "Strongly Agree" (SA) that can be seen in Table 1.

Table 1: Likert scale

Number	Score	Information
1	5	Strongly Agree (SA)
2	4	Agree (A)
3	3	Neutral (N)
4	2	Disagree (D)
5	1	Strongly Disagree (SD)

3.3 Data Validity

Validity refers to the extent to which a measurement accurately reflects the concept being measured [21]. Validity is assessed using the product-moment correlation formula developed by Karl Pearson [22]. The formula is as follows (2):

$$r = \frac{\sum((X-\bar{X})(Y-\bar{Y}))}{\sqrt{\sum(X-\bar{X})^2 \sum(Y-\bar{Y})^2}} \qquad (2)$$

Where:
r   = Pearson correlation coefficient
X and Y = Variables being correlated
$\bar{X}$ and $\bar{Y}$ = Means of variables X and Y

3.4 Data Reliability

Reliability testing is conducted to determine the level of confidence in the results of a measurement [23]. A questionnaire is considered reliable if individuals' responses to the questions are consistent over time [24]. In this study, the Cronbach's alpha reliability test was used, and IBM SPSS was employed as a tool to assess reliability. The formula is as follows (3) [25, 26]:

$$\alpha = \left(\frac{N}{N-1}\right)\left(1 - \left(\frac{\sum Variances\ of\ items}{Variance\ of\ total\ score}\right)\right) \qquad (3)$$

Where:
α = Cronbach's Alpha coefficient
N = Number of items in the questionnaire

3.5 Data Calculation

The data was calculated using the Game Theory method, which involves grouping players

into rows and columns [27]. The row players are those expected to have advantages, while the column players are those expected to have weaknesses [28]. The maximum value of each column (Minimax) and the minimum value of each row (Maximin) are then determined. A saddle point is identified to find the optimal strategy for both players.

3.6 Conclusion

In this stage, a conclusion will be drawn from the processed data and included in the journal.

4. RESULT AND DISCUSSION

The questionnaire utilized in this study incorporated the variables of the marketing mix 7P, namely Product, Price, Promotion, Place, People, Physical evidence, and Process. These variables were carefully selected as they play crucial roles in shaping the marketing strategies of both Instagram and TikTok platforms.

To ensure comprehensive analysis, the variables were divided into two distinct categories: variable X for Instagram and variable Y for TikTok which is shown in Table 2. By examining these variables separately for each platform, we aimed to identify the unique elements and characteristics that influence the marketing dynamics of Instagram and TikTok.

Table 2: Variable Game Theory

Variable	Instagram	TikTok
Product	X1	Y1
Price	X2	Y2
Place	X3	Y3
Promotion	X4	Y4
People	X5	Y5
Physical Evidence	X6	Y6
Process	X7	Y7

4.1 Validity Test

The validity test was conducted to ensure the accuracy and relevance of the collected data. By examining the validity of the data, we can determine the extent to which it accurately reflects the concepts being measured. In this study, the

validity was assessed using the product-moment correlation formula developed by Karl Pearson. The calculated r-values were compared to the table r-value, with a significance level of 5%. It is worth noting that a higher r-value indicates a stronger degree of validity. The table r-value for this test was determined to be 0.195.

Upon analyzing the results of the validity test, it was found that all data points met the validity criteria. Specifically, for Instagram, there were 7 variables with r-values ranging from 0.634 to 0.831, indicating a significant level of validity. Similarly, for TikTok, the variables exhibited r-values ranging from 0.648 to 0.873, further confirming the validity of the data collected.

4.2 Reliability Test

The reliability test was conducted to assess the consistency and dependability of the measurements obtained from the questionnaire. It aims to determine the degree of confidence in the results by examining the consistency of responses over time. In this study, the reliability of the data was assessed using the Cronbach's alpha coefficient, which measures the internal consistency of the questionnaire items. Generally, a Cronbach's alpha value above 0.60 is considered reliable.

The results of the reliability test indicated that the data obtained from both Instagram and TikTok questionnaires exhibited satisfactory levels of reliability. For Instagram, the Cronbach's alpha values ranged from 0.635 to 0.814, indicating a high level of internal consistency [26]. Similarly, for TikTok, the Cronbach's alpha values ranged from 0.659 to 0.861, further demonstrating the reliability of the collected data.

By ensuring both the validity and reliability of the data, we can have confidence in the accuracy and consistency of the results obtained in this study. These findings provide a solid foundation for drawing meaningful conclusions and implications from the analyzed data.

Table 3: Recapitulation of Instagram and TikTok Game Values

		Y1	Y2	Y3	Y4	Y5	Y6	Y7
X1		1626	1649	1650	1649	1599	1631	1627
	1640	1640	1640	1640	1640	1640	1640	
X2		1626	1649	1650	1649	1599	1631	1627
	1533	1533	1533	1533	1533	1533	1533	
X3		1626	1649	1650	1649	1599	1631	1627
	1652	1652	1652	1652	1652	1652	1652	

X4	1600	1626	1600	1649	1600	1650	1600	1649	1600	1599	1600	1631	1600	1627
X5	1626	1626	1626	1649	1626	1650	1626	1649	1626	1599	1626	1631	1626	1627
X6	1647	1626	1647	1649	1647	1650	1647	1649	1647	1599	1647	1631	1647	1627
X7	1607	1626	1607	1649	1607	1650	1607	1649	1607	1599	1607	1631	1607	1627

Table 3 shows the obtained game values between Instagram and TikTok are further analyzed to gain insights into their strategic positions. The data is processed by subtracting the value of the row player, which represents Instagram, from the value of the column player, representing TikTok. This process helps in determining the comparative performance of both platforms in various scenarios.

By utilizing the concept of pure strategy, the analysis focuses on evaluating the optimal strategies for each player. The maximin value, which represents the maximum payoff for the row player under the assumption that the column player minimizes their payoff, is calculated. Similarly, the minimax value, representing the minimum payoff for the column player under the assumption that the row player maximizes their payoff, is determined.

Through this evaluation process, the analysis aims to identify the saddle point, which refers to a situation where the maximin and minimax values coincide. The saddle point represents a strategic equilibrium where both Instagram and TikTok can achieve their respective optimal outcomes [29].

By understanding the interplay of game values and identifying the saddle point, valuable insights can be gained regarding the strategic positioning and competitive dynamics between Instagram and TikTok. This information can inform decision-making processes for businesses and marketers seeking to leverage these platforms effectively and gain a competitive advantage in the digital landscape [28].

Table 4: Game Value

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Minimum
X1	14	-9	-10	-9	41	9	13	-10
X2	-93	-116	-117	-116	-66	-98	-94	-117
X3	26	3	2	3	53	21	25	2 Maximin
X4	-26	-49	-50	-49	1	-31	-27	-50
X5	0	-23	-24	-23	27	-5	-1	-24
X6	21	-2	-3	-2	48	16	20	-3
X7	-19	-42	-43	-42	8	-24	-20	-43
Maximum	26	3	2 Minimax	3	48	21	25	

Based on the game values obtained in Table 4, it is evident that the minimax and maximin values are identical, and a saddle point has been identified. This implies that an optimal marketing strategy has been attained, and the game can be effectively resolved using pure strategies.

The attainment of equal minimax and maximin values signifies a state of equilibrium in the game, where neither Instagram nor Tiktok holds a clear advantage over the other. This equilibrium point, known as the saddle point, represents a strategic balance where both platforms can maximize their marketing potential.

By reaching the saddle point, it indicates that the marketing efforts of both Instagram and Tiktok have been optimized, ensuring an efficient allocation of resources and effective utilization of

marketing mix variables. This achievement is crucial in gaining a competitive edge in the dynamic online marketplace.

Furthermore, the identification of a saddle point implies that the players, namely Instagram and Tiktok, have adopted well-defined and consistent marketing strategies that capitalize on their respective strengths. This strategic clarity enables them to effectively communicate their brand messages, engage with their target audience, and drive consumer engagement and conversion.

The discovery of a saddle point in the game analysis validates the effectiveness of the selected marketing mix variables, as they contribute to the equilibrium state and successful positioning of both Instagram and Tiktok in the competitive landscape. This finding emphasizes the importance

of aligning the seven P's of marketing (Product, Price, Promotion, Place, People, Physical evidence, and Process) with the platform's unique characteristics and the preferences of their respective user bases.

In conclusion, the identification of a saddle point in the game analysis of Instagram and Tiktok's marketing strategies indicates the achievement of an optimal and balanced approach. This outcome affirms the effectiveness of the chosen marketing mix variables and highlights the platforms' ability to leverage their strengths to attract and engage consumers in the dynamic digital landscape.

5. CONCLUSION

From the obtained results, it can be concluded that the marketing mix 7P can be used as a strategy in the Game Theory method. Based on the calculations conducted, it can be inferred that the optimal game value (saddle point) of the marketing strategies between Instagram and Tiktok is obtained as 2.

According to the value of the saddle point, Instagram utilizes strategy X3, which is Place, to attain a maximum gain of 2. Similarly, Tiktok applies strategy Y3, which is Place, to minimize losses by 2. By implementing the optimal Game Theory strategies, both Instagram and Tiktok will be able to sustain themselves in the economic world while increasing the interest of customers and entrepreneurs who wish to start online businesses on the Instagram or Tiktok platforms.

The utilization of the marketing mix 7P as a strategic approach allows Instagram and Tiktok to effectively address key elements such as Product, Price, Promotion, Place, People, Physical evidence, and Process. By aligning these elements with the preferences and behaviors of their target audience, both platforms can enhance customer engagement, satisfaction, and ultimately drive sales growth.

Furthermore, the application of Game Theory principles enables Instagram and Tiktok to strategically compete in the dynamic online marketplace. By identifying the optimal strategies through the calculation of the saddle point, both platforms can make informed decisions to maximize their marketing effectiveness and minimize potential losses.

By successfully implementing optimal marketing strategies derived from Game Theory, Instagram and Tiktok can create a competitive advantage, attract a larger customer base, and foster a thriving online business ecosystem. This not only benefits the platforms themselves but also contributes to the overall growth and development of e-commerce and digital entrepreneurship.

In conclusion, the utilization of the marketing mix 7P as a strategic framework, combined with the application of Game Theory principles, empowers Instagram and Tiktok to navigate the complex dynamics of the digital marketplace. By leveraging their respective strengths and adopting optimal strategies, both platforms can foster business success, attract customer interest, and provide a conducive environment for online entrepreneurs to thrive.

A promising future research direction in the realm of digital marketing within South Tangerang, Indonesia, could entail a comprehensive study of the long-term impact of marketing strategies on social media platforms, particularly Instagram and Tiktok. By delving into the lasting effects of these strategies on business performance, researchers can gain insights into brand loyalty, customer retention, and sustainable growth over extended periods. Additionally, an investigation into the evolving user behavior and preferences on these platforms would provide valuable information on how the demographics and psychographics of users influence their engagement with content, products, and advertisements. Furthermore, considering the dynamic nature of these platforms, exploring the consequences of algorithmic changes, such as Instagram's evolving algorithms, on marketing effectiveness and the adaptability of businesses is crucial. To complement this, the analysis of cross-platform marketing strategies and the synergy between Instagram, Tiktok, and other platforms, while considering local vs. global approaches, will be instrumental in determining the most effective marketing techniques for businesses.

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