

Analyzing the Influence of Customer Engagement on Instagram and TikTok on the Top Brand Index 2024 in the Pharmaceutical Sector

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Abstract. This study aims to see whether there is an influence between consumer engagement of pharmaceutical brands on social media, especially Instagram and TikTok on the Top Brand Index of the pharmaceutical sector. The pharmaceutical sector faces stringent industry regulation, with substantial regulatory oversight, disclosure laws, and other regulatory guidelines and requirements. This creates intense competition for pharmaceutical companies to maintain the top position of their brands by engaging customers on drug brand social media accounts. This study uses secondary data from website fanpage karma and Top Brand Index for medicine category in 2024. Researchers conducted a classic assumption test and hypothesis testing using multiple linear regression tests with the SPSS analysis tool. The results of this study indicate that TikTok's customer engagement has no significant effect on the top brand index and Instagram's customer engagement has no significant effect on the top brand index. This means that consumer engagement on social media Instagram and TikTok has no influence on the marketing strategy of the pharmaceutical sector. This study has several limitations. First, this study only examines the top brand index category of pharmaceuticals. Second, this research was conducted on Instagram and TikTok social media engagement only. Future research can conduct research on other social media such as Facebook and X with larger data.

1. Introduction

Current technological developments are widely utilized by business people to market products and interact directly with consumers through social media. Social media gives consumers full power to obtain and convey information (1). Social media can be used to market products and create closeness with consumers through various social media platforms such as Instagram, Facebook, Youtube, Twitter, and TikTok (2). Global social media users as of January 2024 have reached 5.04 billion. This is equivalent to 62.3% of the world's population. The number of social media users in January 2024 increased by 75 million users, up 1.5% compared to the 4th quarter of 2023. The results of a

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research report from We Are Social in January 2024, the number of social media users in Indonesia reached more than 138 million people (3).

Based on the data, the social media most widely used by internet users in early 2024 included Instagram at 85.3% and Tiktok at 73.5%. Instagram and TikTok are one of the social media that is currently very widely used by people of various ages. This is because Instagram is an application used to share photos and videos that can be seen by many people (4). The data generated from social media activities provides valuable insights for businesses to understand consumer preferences, behaviors, and trends. Through proper data analysis, companies can identify new opportunities, adjust marketing strategies, and optimize their performance. This helps companies stay relevant in a dynamic and competitive business environment (5). Social media marketing is a type of communication used to build awareness, understanding, communication, and even action about a product, business, person, or group, either discreetly or not (6).

More than 90% of today's marketing leaders use social media, and it is rare for a brand not to have a presence on social media. However, the pharmaceutical industry seems to be slow to react due to the strict rules about what can and cannot be said, pharmaceutical companies do not have the same freedom to advertise their products as general goods companies. Pharmaceutical companies are companies that focus on the production and development of medicines. It aims to produce high-quality medicines, make them easily accessible, and optimize the production process while reducing costs. Pharmaceutical executives face many pressures, such as complicated regulations and compliance; fickle emerging markets; where value-based pricing is increasing, some drugs are still not covered in all areas and have stringent control measures; drug discovery and development faces many stringent control measures; convoluted processes in drug discovery and development may occur due to various complications that occur during the process (7).

Prescription drugs do not have the freedom to be advertised, customers can find over-the-counter drugs through advice from pharmacists or other people that customers trust that they can deliver the expected results (8). Of the various business industries that exist, the development of the pharmaceutical industry in Indonesia today has had many developments and advances (9). This creates intense competition for pharmaceutical companies to maintain the top position of their brands by engaging customers on medicine brand social media accounts. Consumer engagement is one way for business owners to interact with customers in a way that generates high-quality content and two-way communication between sellers and buyers. Consumers can contribute to a business or product in several ways, such as reading articles, communicating through two channels, participating, and making recommendations online (6).

Research from Esmaealzadeh(10) states that the most widely used social media is the internet 51.3% and 28.2% of participants believe that online advertising is the best marketing strategy that attracts them to buy Health products. This indicates that consumer engagement via the internet has an impact on consumer behavior. This study aims to see whether there is an influence between consumer engagement of pharmaceutical brands on social media, especially Instagram and Tiktok on the Top Brand Index of the pharmaceutical sector. Consumer brand engagement is a dynamic and process-based concept, which has evolved in line with brands' ability to increasingly understand consumers' desires and expectations. They also introduced the phrase as a comprehensive marketing concept that contains several dimensions of consumer decision-making, from brand preference to brand purchase (11). Past research has shown that consumer engagement in online environments has a positive

impact on a range of brand- and customer-related outcomes, such as brand evaluation, loyalty, and trust, as well as customer purchase intentions and satisfaction (12). This study aims to see whether there is an influence between consumer engagement with pharmaceutical brands on social media, especially Instagram and TikTok on the Top Brand Index of the pharmaceutical sector in 2024. The formulation of the problem in this study is:

1. Does consumer engagement on Instagram on pharmaceutical brands affect the Top Brand Index?
2. Does consumer engagement on Tiktok on pharmaceutical brands affect the Top Brand Index?
3. Does consumer engagement on Instagram and Tiktok on pharmaceutical brands affect the Top Brand Index?

Social media is considered the most effective form of establishing and building relationships with consumers. Social media is changing pharmaceutical and healthcare marketing relationships in many ways. Customer engagement or interaction can start from reading activities, viewing content on Instagram then continuing with customers being able to repost, share with other users, comment, and like on Instagram (13). Pharmaceutical marketers can use social media to test and build effective marketing relationships, target, identify, and engage consumers on a more personal level. Through social media, marketers can better understand how product perceptions, consumer demographics, and their interest in product attributes (14).

The content generated in social media provides outputs in the form of information that aims to educate each other about a product, brand, service, or problem that arises. The interaction or communication relationship established by the company or producer with customers is also called customer engagement (15). This interaction relationship can be done through various ways and media. Engagement shows the average number of times a fan interacts with a page's posts. Measures engagement for Instagram and Tiktok on Fanpage Karma is calculated by dividing the number of likes, comments, and shares by the number of fans (academy.fanpagekarma.com). Social media is a popular and widely-used tool for building customer-brand relationships (12).

Increasing Engagement and Direct interaction through social media enables direct engagement with patients, healthcare providers and other stakeholders. Companies can answer questions, address concerns, and provide support, thus creating a community and improving the patient experience (platformio.io). When a brand creates content that is entertaining or humorous in nature that can create a sense of liking for consumers, then consumers are willing to share the brand on their social media pages and are interested in following brand developments, then with this the brand benefits from increased engagement from consumers. Where in the entertainment content available on the brand page will be processed into a positive consumer experience, thus strengthening Consumer Brand Engagement (16). The following is data on consumer engagement on Instagram and TikTok for each brand of medicines on the top brand index taken through the karma fanpage website.

The pharmaceutical sector faces stringent industry regulation, with substantial regulatory oversight, disclosure laws, and other regulatory guidelines and requirements. Top of mind can occur if companies and customers can establish positive interactions. Posting content on social media will give customers in the pharma sector at least as much experience as their daily interactions with other industries (17). It is important to consider social media as it can influence consumer behavior and

marketing. Social media has become a vital marketing and communication channel for businesses, organizations and institutions, politics and culture. For many people social media is where they receive large amounts of information, share content and aspects of their lives with others, and receive information about the world around them (although that information may be of questionable accuracy) (18). Social media simplifies and streamlines the process for drug brands to access and respond to public opinions. It serves as a versatile platform for educating, marketing, listening, and engaging with customers, patients, and healthcare professionals, all while adhering to industry regulations and fostering long-lasting relationships (14).

Table 1. Costumer Engagement Social Media for Pharmaceutical brand categories

CATEGORI	PROFILE	CE TIKTOK	CE INSTAGRAM
Cold medicine	Decolgen	0.015	0.013
	Bodrex flu dan batuk	0.163	0.002
	Mixagrip	N/A	0.000
Headache medicine	Bodrex	0.163	0.002
	Panadol	0.023	0.013
	Paramex	0.001	0.001
Heat-lowering medicine	Pandol	0.023	0.013
	Sanmol	N/A	N/A
	Proris	0.000	0.001
Cough medicine	Komix	0.003	0.006
	Bodrex flu dan batuk	0.163	0.002
	OBH Combi	N/A	0.000
Cold Symptoms medicine	Tolak Angin	0.000	0.002
	Antangin	0.000	0.001
	Bintang Toedjoe	N/A	N/A
Ulcer medicine	Promag	N/A	0.000
	Mylanta	0.001	0.000
	Polysilane	N/A	0.000
Diarrhea medicine	Diapet	0.000	0.000
	Neo Entostop	N/A	0.000
	New Diatabs	0.000	0.004

Source: Fanpage Karma, 2024

Top Brand Award is an institution that conducts surveys of consumers to give awards to brands chosen by consumers in a survey as the best brands used by consumers. Top Brand Award measures performance with 3 criteria, namely Top of Mind (brand awareness), Last Usage (last use) & Future Intentions (repurchase intentions) (topbrand award.com). According to research (19). Top of Mind can explain brand image, because a positive company brand image will be top of mind or mentioned by consumers for the first time. This is related to customer engagement where customers will trust more if they have a relationship with a brand that has high quality. To foster good trust in a brand, the customer engagement approach is very suitable, considering that a good experience will create a good relationship with the brand who have positive trust (13). Customer engagement on social media not only affects a brand's reputation, but can also impact their position in the top brand index. In the medicine category in the Top Brand Index in 2024, there are various sub categories including cold medicine, headache medicine, fever medicine, cough medicine, cold

medicine, ulcer medicine, diarrhea medicine. These medicine brands are in the top brand positions according to the Top Brand Index survey results.

Table 2. Top Brand Index for Pharmaceutical brand categories 2024

Sub-categori	Brands	TBI
Cold medicine	Decolgen	20.70%
	Bodrex flu dan batuk	16.80%
	Mixagrip	10.50%
Headache medicine	Bodrex	27.20%
	Panadol	16.30%
	Paramex	7.90%
Heat-lowering medicine	Panadol	31.10%
	Sanmol	27.10%
	Proris	13.10%
Cough medicine	Komix	21.60%
	Bodrex flu dan batuk	12.30%
	OBH Combi	10.60%
Cold Symptoms medicine	Tolak Angin	53.90%
	Antangin	31.70%
	Bintang Toedjoe	6.30%
Ulcer medicine	Promag	34.00%
	Mylanta	26.30%
	Polysilane	7.10%
Diarrhea medicine	Diapet	43.30%
	Neo Entostop	21.70%
	New Diatabs	6.60%

Source: Top Brand Index, 2024

Therefore, the hypothesis built in this study is as follows. H 1: It is suspected that customer engagement on Instagram social media has an effect on the top brand index for the medicine category 2024. H 2: it is suspected that customer engagement on Tiktok social media affects the top brand index for the medicine category 2024. H 3: It is suspected that customer engagement on Instagram and Tiktok has an effect on the

top brand index for the medicine category 2024. Based on the description of the hypothesis development described earlier, the following research model is compiled:

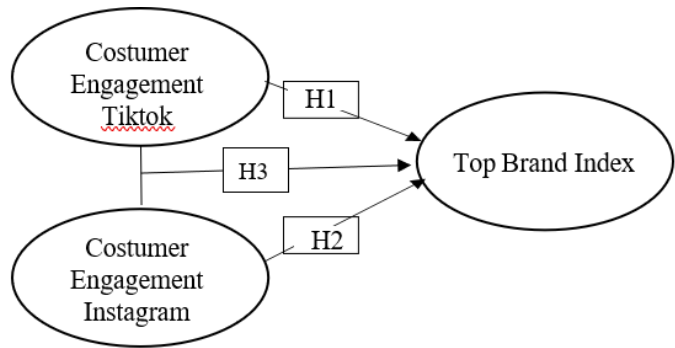


Fig. 1. Reseach Model

2 Method

2.1. Data Collection

This study uses secondary data, namely top brand index competition data for the pharmaceutical category published by Top Brand Index in 2024. Researchers used data on five sub-categories of medicines, namely cold medicines, headache medicines, heat reducing medicines, cough medicines, cold medicines, ulcer medicines, and diarrhea medicines with the top three top brands. The data used in this study is time series data taken through the karma fanpage web to find out the number of Instagram and tiktok social media engagement from each of the top index top brands in the category, so that the data used is 21.

2.2. Classical Assumption Test

Researchers conducted a classic assumption test and hypothesis testing using multiple linear regression tests with the SPSS analysis tool. The use of multiple linear regression analysis is appropriate because it effectively examines the relationship between social media engagement and brand index by analyzing the impact of multiple independent variables simultaneously. The first classic assumption test is the normality test. Based on the normality test, the significance> 0.05 is obtained, indicating that the data is normally distributed. Second, the multicolonierity test results show the tolerance value of all independent variables> 0.1 and the VIF value of all independent variables <10.00. This means that there is no multicollinearity. Furthermore, researchers conducted hypothesis testing using multiple linear regression tests.

3 Result and Discussion

The results of hypothesis testing show that hypothesis 1 is not supported with a significance value of 0.732. The results of hypothesis testing show that hypothesis 2 is not supported with a significance value of 0.909.

Table 3. The Result of test-T

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	.217	.038		5.668	.000
	Tiktok	-.186	.536	-.082	-.348	.732
	Instagram	.792	6.841	.027	.116	.909

Source: data processed (2024)

The results of hypothesis 3 show that the significance value obtained is 0.937 (>0.05), it concludes that the tiktok and instagram variables have no simultaneous effect on the dependent variable.

Table 4. The Result of test F

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.002	2	.001	.066	.937 ^b
	Residual	.342	18	.019		
	Total	.344	20			

Source: data processed (2024)

The results of this study indicate that Tiktok's customer engagement has no significant effect on the top brand index. The results of this study indicate that Instagram customer engagement has no significant effect on the top brand index. The results of this study indicate that Instagram customer engagement and Tiktok customer engagement do not have a significant joint effect on the top brand index. This means that consumer engagement on social media instagram and tiktok has no influence on the marketing strategy of the pharmaceutical sector. This study has several limitations, namely that the data used is still small so that the results obtained have a negative value. Researcher suggestions for future research. First, this study only examined the top brand index category of pharmaceuticals. Future research can consider other top brand index categories. Second, this research was conducted on Instagram and tiktok social media engagement only. Future research can conduct research on other social media such as Facebook and X with larger data.

4. Conclusion

The results of this study indicate that Tiktok's customer engagement has no significant effect on the top brand index and Instagram's customer engagement has no significant effect on the top brand index. This means that consumer engagement on social media instagram and tiktok has no influence on the marketing strategy of the pharmaceutical sector. This study has several limitations. First, this study only examines the top brand index category of pharmaceuticals. Second, this research was conducted on Instagram and tiktok social media engagement only. Future research can conduct research on other social media such as Facebook and X with larger data.

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