

# Ratio Analysis of Social Media Platform Instagram Using The Exploratory Method

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## ARTICLE INFO

## ABSTRACT

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*The notable surge in the adoption of Instagram as a promotional instrument by micro, small, and medium enterprises (MSMEs) underscores the criticality of evaluating the outcomes and efficacy of marketing approaches. This study underscores the criticality of Instagram social media ratios in facilitating effective consumer engagement and marketing strategies. Social media analysis employs an exploratory approach to identify variables on Instagram that will subsequently be transformed into ratios indicating whether or not they have a significant relationship. Utilizing variables including Post to Followers, Following to Followers, Image Likes to Followers, Image Comments to Followers, and Video Likes to Followers, the study's findings comprise a ratio analysis of the most active computer store Instagram account among the five accounts examined on Instagram.*

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## 1. Introduction

The significant increase in the use of social media, particularly Instagram, as a marketing tool for MSMEs highlights the urgency to further investigate the impact and effectiveness of the marketing strategies implemented. These platforms are not only creating an online presence for MSMEs, but also becoming an important channel to interact directly with customers. In this context, research focused on analyzing Instagram's social media ratio is a must (Bhimani, Mention, and Barlatier 2019; Parry et al. 2022).

With the increasingly fierce business competition in cyberspace, MSME owners need to have deep insights into how the performance of their marketing campaigns on Instagram affects the achievement of business goals. Social media ratio analysis is key to identifying the success or failure of marketing strategies, while providing clues for improving effectiveness (Assaad and El-Adaway 2020). Therefore, this research emerges as a proactive step to answer the urgent needs of small and medium business owners in optimizing the use of social media as a marketing tool (Nageswarakurukkal, Gonçalves, and Moshtari 2020; Wijaya et al. 2022).

MSMEs can enhance their comprehension of pertinent ratios, thereby enabling them to make more informed decisions, adapt their marketing strategies, and precisely assess their impact (Mansur 2022). By adopting this framework, an exploratory method approach proves to be an efficacious technique for delving further into the data, discerning patterns, and comprehending the rationale behind the ratios. The advantages that MSME proprietors can derive from developing and assessing their marketing strategies on Instagram (Sathana, Velnampy, and Rajumesh 2021). Conducting a thorough

ratio analysis will yield tangible insights that can be utilized to enhance online visibility, fortify customer engagement, and ultimately optimize business performance as a whole.

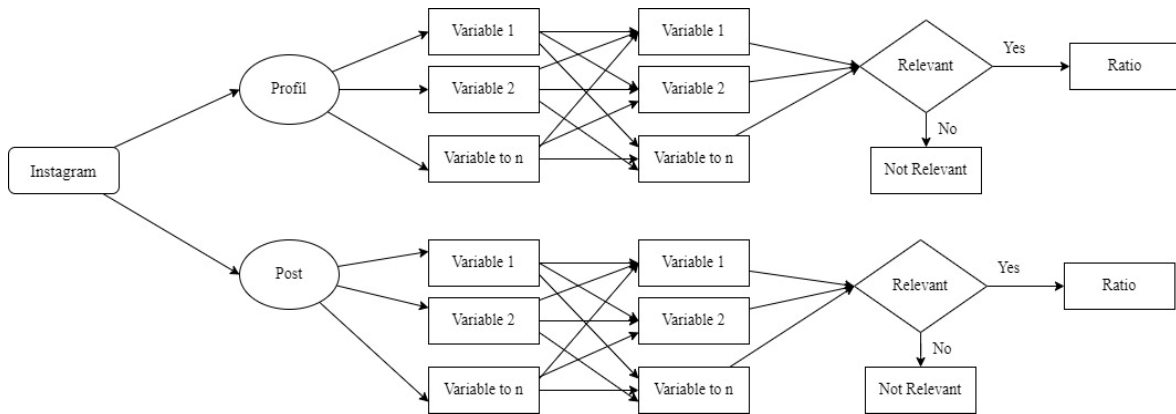
In addition, the urgency of this research lies in its contribution to literature and knowledge. By deepening the understanding of how MSMEs utilize Instagram, this research can contribute to digital marketing theories and provide new insights that can form the basis for further research (Yulianto and Suhaimi 2020). So that there are research objectives, namely to understand the audience in order to know what content is of interest to the audience so that they can improve and develop the content of interest. To monitor or observe competitor activities, so that the information obtained will help in developing MSME social media marketing strategies. Research implication is assess the quality of active and relevant social media followers. With the aim of knowing whether our followers are qualified who are really interested in your content, not just a large number of followers but not quality. To identify trend and follower preferences. By looking at the types of content that are of interest, the right time to post, or the themes that are most interesting to your followers. To compare the performance of your Instagram account with other competitors. In addition, to see which opportunities or parts need to be improved in the performance of your Instagram account. And can contribute to the development of a more effective social media marketing strategy for MSMEs in today's digital era.

## 2. Literature Review

Some research related to Instagram social media ratio analysis is by exploring the use of exploratory methods in analyzing data from MSMEs that use Instagram. The focus includes engagement ratios, follower growth, and sales conversions. Another study (Permana 2021) describes a qualitative approach to analyzing social media ratios in a small number of micro-businesses that are active on YouTube social media. In-depth case studies discuss how certain metrics are reflected in the marketing strategies of MSMEs through social media (Sukunesan, Selvarajah, and Mellstrom 2020). Further research (Boufares Tayaa and Bouzaabia 2022; Konstantopoulou et al. 2019; Mamodu et al. 2019) successfully explored the relationship between the level of engagement of Instagram users on MSME content and their business performance. Explorative analysis reveals patterns that may be missed in performance evaluation. Research by (Lupo and Stroman 2020) This study highlights the qualitative aspects of analyzing social media ratios on Instagram, especially in small-scale retail businesses MSMEs. Explorative analysis helps in exploring the story behind the numbers and patterns observed (Santiago and Castelo 2020). The GAP of this research is on analyzing Instagram social media ratios in the context of MSMEs with an exploratory method approach in integrating qualitative aspects to provide a more holistic understanding of the patterns and context behind the observed ratio data.

## 3. Research Methods

This study employs an exploratory approach to investigate all categories of Instagram users in order to enhance understanding and seek insights into specific symptoms, describe social phenomena, and elucidate the mechanisms behind their occurrence (Benitez et al. 2020; Guo et al. 2020; Permana 2021). Exploratory research is employed to further elaborate on problems or generate ideas, rather than to test hypotheses (Molyneux, Lewis, and Holton 2019; Mudjiyanto 2018). The objective of this research is to identify variables on the Instagram social media platform, which will then be transformed into ratios. In order for Instagram accounts to be analyzable, they must fulfill the technical requirements provided by Instagram. Specifically, the account must be public or non-private, allowing access to its data without requiring permission from the account owner. The comment column remains enabled to indicate the quantity of comments on a post.



**Fig.1.** Relevance of Instagram Account Variables to Ratio(Laksmana and Permanan 2023)

On the basis of Figure 1, it is possible to deduce that the ratio is a relationship-forming comparison between two numbers. A ratio is a numerical value that is expressed as a percentage and is defined as the comparison between two patterns (Osborne and Costello 2019). When calculating a ratio, a minimum of two variables must be compared in order to derive a value that is ultimately represented as a percentage. A comparison will be made between each of the determined variables and each of the found variables, followed by a relevance test to ascertain whether the comparison between the two variables qualifies as a ratio.

In Figure 1 the relevance of variables to the ratio shows a comparison, namely the comparison between variable 1 and variable 2 with other variables so as to find at least 2 relevant variables to be used as ratios. After variable two is analyzed, it is continued by comparing variables three, four, five and so on until all existing variables are compared with all other variables.

Social media analysis aims to be a reference for quantitative research so that the variable to be analyzed is an object that has a value in the form of numbers so that it can be calculated in the process of making or formulating it as a ratio. The following is the process of finding variables on Instagram social media.

#### 4. Results and Discussions

##### Social Media Data Details

This research data is obtained by analyzing Instagram social media accounts. Each account on Instagram has a page view that shows the profile and uploaded posts. From the account display, several variables can be found such as the number of posts and the number of followers, while on the video display or uploaded content, several variables can be found such as the number of likes, dislikes, viewers, and comments. Where the variables contained on Instagram will later be compared and tested for relevance so as to find a relevant ratio.

Instagram social media data that becomes research data, namely this social media ratio analysis about computer stores, where there are five active Instagram accounts and always update the status and content that becomes social media analysis data, namely Blessing Computer Bali, Bali techno Wholesale Computer (Btgcom), Satria Computer, Astikom, and Techno Computer Bali.

Of the five instagram accounts that are visited on the intagram social media account, then look for the value of the variables used to calculate the ratio of the five instagram accounts. From the five instagram accounts, there are 8 variables that can be used in analyzing the ratio, including:

- a. Post
- b. Followers
- c. Following
- d. Image Likes
- e. Image Comments
- f. Video Likes
- g. Video Comments
- h. Video Views

Of the seven variables, there are results from 5 variables that have a relevant relationship to the social media analysis ratio, namely:

- a. Post to followers
- b. Following to Followers
- c. image Likes to Followers
- d. image Comments to Followers
- e. Video Likes to Followers

### Social Media Ratio Analysis Results

There is a more detailed explanation of the 5 variables that have a relevance relationship, namely Post to followers, Following to Followers, image Likes to Followers, image Comments to Followers, Video Likes to Followers.

#### a. Post To Followers

To calculate the average value of the Posting and Followers variables, namely by taking the total number of Posts and Followers from each account so as to find the average value of each variable.

**Table 1.** Ratio Results of The Average Value of The Instagram Account Posting to Followers Variable

Variable	Blessing Computer	BTG Computer	Satria Komputer	Astikom	Techno Computer
Posting	1457	41	795	1637	923
Followers	13400	5717	6841	5465	5628
Total Average	0,108731343	0,007171593	0,11621108	0,299542543	0,164001421

Based on table 1, it can be explained that from this average value we can conclude that the ratio value with the lowest characteristics is from the BTG Computer Instagram account while the ratio value with the highest characteristics is on the Astikom Instagram account. The total average value is obtained by dividing the number of Posts by the number of Followers.

#### b. Following To Followers

To calculate the average value of the Following and Followers variables, namely by taking the total number of Following and Followers from each account so as to find the average value of each variable.

**Table 2.** Ratio Results of The Average Value of The Following to Followers Variable On Instagram Accounts

Variable	Blessing Computer	BTG Computer	Satria Komputer	Astikom	Techno Computer
Following	329	33	530	665	385
Followers	13400	5717	6841	5465	5628
Total Average	0,024552239	0,005772258	0,077474054	0,12168344	0,06840796

Based on table 3, it can be explained that from this average value we can conclude that the ratio value with the lowest characteristics is from the BTG Computer Instagram account while the ratio value with the highest characteristics is on the Astikom Instagram account. The total average value is obtained by dividing the number of Following by the number of Followers.

#### c. Image Likes To Followers

To calculate the average value of the Image and Followers variables, namely by taking the 5 Latest Images and Followers from each account so as to find the average value of each variable. By

calculating the average value of the Image Likes variable and finding the value of the Followers variable, it will be arranged as in the following table:

**Table 3.** Variable Value on The Five Computer Store Instagram Accounts Analyzed

Variable	Blessing Computer	BTG Computer	Satria Computer	Astikom	Techno Computer
Image Likes	22,4	13,2	67,6	9	51,4
Followers	13,400	5,717	6,841	5,465	5,628
Total Rata-rata	1,671641791	2,308903271	9,881596258	1,646844	9,132906894

From table 3 it can be explained that Satria Computer gets the highest score. And Astikom's account gets the lowest score. So, in this research Instagram account, Satria Computer has better performance credibility than other Computer Store accounts. The total average value is obtained by dividing the number of Image Likes by the number of Followers.

#### d. Image Comments To Followers

The variables are then analyzed until the value of the Image Comments variable and the Followers variable. In the Image Comments variable there are many comments on an Instagram account, so to get relevant values it is necessary to find at least 5 posts and calculate the average Comments on each account. In the Followers variable, each account has the appropriate value on the account page, so the variable value can be used to the next stage without calculating the average value. The following table shows the average value of Image Comments and Followers value:

**Table 4.** Ratio Results of The Average Value of The Variable Image Comments to Followers Instagram Account

Variable	Blessing Computer	BTG Computer	Satria Computer	Astikom	Techno Computer
Comments	1.4	0	0	0	0.6
Followers	13400	5717	6841	5465	5628
Total Rata-rata	6700,7	2858,5	3420,5	2732,5	2814,3

Based on table 4, it can be explained from this average value that we can draw conclusions for the ratio value with the lowest characteristics is from the Astikom Instagram account while the ratio value with the highest characteristics is on the Blessing Computer Instagram account. The total average value is obtained by dividing the number of Comments by the number of Followers.

#### e. Video Likes To Followers

The two variables above are then analyzed until the value of the Video Likes variable and the Followers variable. In the Video Likes variable there are many viewers and likes in an Instagram account, so to get relevant values it is necessary to find at least 5 posts and calculate the average video likes on each account. In the Followers variable, each account has the appropriate value on the account page, so the variable value can be used to the next stage without calculating the average value. The following table shows the average value of Video Likes and the value of Followers:

**Table 5.** Ratio Results of The Average Value of The Instagram Account Video Likes to Followers Variable

Variable	Blessing Computer	BTG Computer	Satria Computer	Astikom	Techno Computer
Video Likes	22.6	20.2	7.6	33.8	78.2
Followers	13400	5717	6841	5465	5628
Total rata-rata	0,001686567	0,003533322	0,001110949	0,006184812	0,013894812

Based on table 5, it can be explained from this average value that we can draw conclusions for the ratio value with the lowest characteristics is from the Satria Komputer Instagram account while

the ratio value with the highest characteristics is on the Techno Computer Instagram account. The total average value is obtained by dividing the number of Video Likes by the number of Followers.

## 5. Conclusion

The conclusion of the research is that analyzing the ratio on Instagram social media accounts, especially 5 computer stores, can contribute to research in knowing how to engage and build an audience on Instagram, optimize content and marketing strategies and improve the overall reputation and performance of Instagram accounts. There are 5 variables that have a relevance relationship, namely Post to followers, Following to Followers, image Likes to Followers, image Comments to Followers, Video Likes to Followers. The contribution of research results of the analysis show that the Post to Followers variable is the ratio value with the highest characteristics on the Astikom Instagram account, the Following To Followers variable is the ratio value with the highest characteristics on the Astikom Instagram account, the Image Likes To Followers variable is the ratio value with the highest characteristics on the Satria Computer Instagram account, the Image Comments To Followers variable is the ratio value with the highest characteristics on the Blessing Computer Instagram account, the Video Likes To Followers variable is the ratio value with the highest characteristics on the Techno Computer Instagram account. Suggestions for future research are to add tiktok social media in the explanatory method analysis.

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