# THE INFLUENCE OF INSTAGRAM MARKETING ON COLLEGES ON POST INTERACTION

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**Abstract.** The ease of using social media today makes many universities use social media as part of their marketing strategy such as Instagram marketing. The purpose of this study was to analyze the effect of Instagram marketing on the interaction of posting at universities at the Islamic University of Indonesia. Instagram marketing can be evaluated based on post typology, namely advertising, event, information, entertainment, and achievement. The analysis used multiple regression analysis with OLS estimation from 330 posts on the Instagram of the Islamic University of Indonesia in a twelve-month period using the SPSS application program. This study aims to help identify which variables can generate greater interaction between users, and provide strategic suggestions for marketing management on social networks. The results of the data analysis show (1) Advertising has no effect on the interaction of posting (2) Events have no effect on the interaction of posting (3) Entertainment has a positive effect on the interaction of posting (4) achievement has an effect on the interaction of posting on likes but does not have an effect on the interaction of posting on comments.

**Keywords:** *Instagram; like; comments; social media; post typology; higher education.*

## I. INTRODUCTION

The rapid development and digital transformation have resulted in changes in the use of the internet and social media by the public. Social media plays an important role as a communication tool where every user can share information, knowledge, and connect with each other. Social media is a collection of internet-based applications developed on the Web 2.0 framework and technology so that it allows for the creation of interactions within it [1]. Currently, the existence of social media is increasingly replacing traditional media which are widely used as sources of information, services and products [2]. Social media has provided opportunities to attract customers and build long-term relationships between organizations and media sites to communicate, search and also offer various suggestions on topics and meet other people with similar interests including products, services, brands, goals, foundations, politics and the like [3].

Social media has changed the way content is designed, shared and discussed globally, social media facilitates communication with peers, advances new ideas, and opens up the possibility of an online presence of communities with similar interests in certain topics. Through social networking sites (SNS) users have the ability to customize their personal profiles, choose the type of information they want to share, and

set preferences so that they can be felt by others according to their wishes [4]. Social media is recognized as an important tool, and business managers recommend that these platforms be included in the overall strategy because customers tend to rely on social media to interact with friends and brands [5].

In recent years, social media has played a very important role in academia and business. As a result, more and more researchers are conducting research on social media. The increasing number of social media users reflects the importance of these platforms in people's lives as well as the potential for huge business opportunities. In other words, social media platforms have become the most important source of information in people's daily lives [6]. At this time, global institutions have been renewed, social media plays a relevant role where students and teachers are two main stakeholders [7]. Social media currently has various roles including: functioning as a networking facilitator; marketing and recruitment tools; collaboration, teaching and learning tools; and media that offers career and entrepreneurship opportunities [8].

Instagram is one of the most popular social media platforms in the world with the largest number of active users. Instagram is a mobile-based application that focuses on sharing photos and videos, users can upload, edit, and complete their content with various elements such as tags, locations, descriptions,

emojis, and so on. In January 2023, We Are Social noted that Instagram had a total of 2 billion, placing it as the fourth largest platform after Facebook, Youtube, and Whatsapp. The existence of easy-to-use features and global population growth are expected to increase the number of active Instagram users in the future.
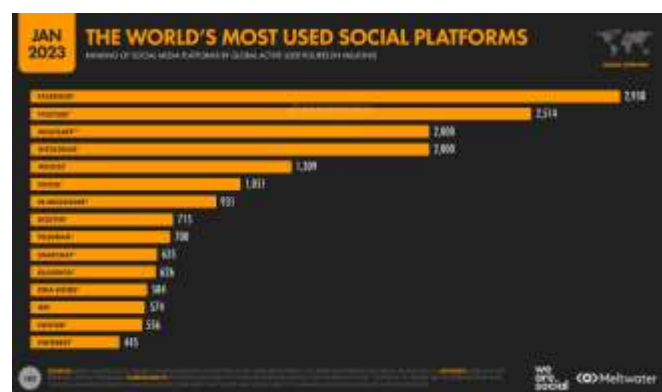


**Fig.1 The Most Used Social Platform in the World**

With the development of Instagram for Business in 2016, brands can easily create their profiles and use this platform to increase awareness and build a community of brand fans [4]. The accuracy of the delivery of information provided by the company about the brand can have a significant impact on customer perception of the brand. Such as sharing opinions, reviews, and comments online among consumers, known as Electronic Word-of-Mouth (E-WoM), has a strong impact on consumer perception of the brand. Therefore, the relevance of the brand page becomes crucial in managing the influence of a brand in controlling what consumers are talking about online [4].

The strategies and tools used to communicate with students have changed significantly in line with the development of social media. So that universities must adapt to these changes, where social media is no longer just the main source of information for students but has achieved an important status in student life. Research by Bonilla et al., (2020) explains that prospective students tend to move around in using social media to interact with universities. In his research, it is also explained that the use of social media can vary depending on the audience, such as Facebook is generally used by parents while younger audiences usually use Instagram and other new platforms [9].

Social media is also able to measure and track the effectiveness of posts and campaigns instantly [9]. Through active interaction on social media, universities can get the opportunity to understand in depth the perceptions and actions related to their brand image, in addition they will also get new ideas for content that is interesting to students and respond directly to comments and participate in further conversations, so that it can create more active engagement [10].

Several previous studies have discussed the topic of the impact of content posts on interactions on a post on social media. For example, research conducted by Coelho et al., (2016) found that content posts can have an impact on the social media matrix of Facebook and Instagram on two interaction matrices, namely likes and comments [11]. Luarn et al., (2015) also found that the type of post content influences online engagement: likes, comments and sharing [12]. There is also research by Peruta & Shields, (2018), on content analysis of types and formats of Facebook posts to market universities [10]. Research conducted by Quijada et al., (2022) explains that only a few interactions between users from five universities were analyzed so that consumer involvement varies, does not behave the same in each university, when stakeholders are global, this will react to elements that vary and often conflict as results do not always match expectations [13]. The increasing use of social media in business marketing strategies, several studies are currently starting to focus on classifying what types of posts have positive interactions with a post that is posted. This is important and interesting to discuss further because not all posts on Instagram get positive interactions.

Previous research related to Instagram marketing in Indonesia focused more on Instagram posts of clothing brands such as in the study conducted by (Santoso et al., 2017) on the influence of post content on Instagram on Online Engagement, in this study there were four types of posts used, namely product, promotion, entertainment and event post types with objects on five women's clothing brands [14]. Because there are still not many studies that discuss post typology and studies that use secondary data in previous studies related to Instagram marketing in Indonesia, especially in universities, the researcher chose this theme.

The researcher chose the Instagram of Universitas Islam Indonesia as the object of this study because many universities have adopted the use of social media as a means of communication to interact with users. Currently, the Instagram account @uiiyogyakarta has more than 100 RB followers. This study focuses on user interaction from higher education institutions on Instagram because these institutions increasingly rely on photo and video-based applications as their communication strategy, many higher education institutions in this sector organize campaigns based on user-generated content. As in the study conducted by (Quijada et al., 2022) regarding the analysis of user interactions on social networks to determine the extent to which they are able to generate engagement on Instagram posts from five universities [13].

**Fig.2 Instagram account @uiiyogyakarta**

In this study, researchers used five types of post typology content. The five types of content were taken from three different studies, namely research conducted by (Coelho et al., 2016) with five types of post typology content themes, namely Advertising, Fan, Events, Information, and Promotion [11]. Research conducted by Cvijikj & Michahelles, (2013) with three content type themes, namely Entertainment, Information and Remuneration [15]. Research conducted by (Quijada et al., 2022) with eight themes, namely News, Advertisements, Events/Sports, Promotion/Marketing, Acknowledgements, Achievements/Success, Competitions and CSR initiatives [13]. Based on these three studies, researchers took five types of post typology content themes, namely Advertising, Events, Information, Entertainment and Achievements. The five types of post typology content themes were chosen because there are still not many studies examining these types of typology themes in Indonesia, especially in higher education. From the results of the research that has been done, it is expected to improve the quality of content, and find out what type of content is most in demand by Instagram users and this information allows the development of more relevant and interesting content. So that academics and social media managers can identify the most effective types of content to achieve marketing goals such as images, videos/more interactive content and can understand how the audience responds to various types of content so that they can evaluate the performance of existing content by comparing the like and comment matrix.

## II. RESEARCH METHODS

The research approach used by this researcher uses a quantitative method. The data in this study were obtained from all posts uploaded by the Instagram of the Islamic University of Indonesia within a period of twelve months (from July 2023 to June 2024). The population in this study were posts on the Instagram of the Islamic University of Indonesia. The data in this study were obtained through historical data, namely data that describes something from time to time or the data period is cross-section data. This study uses historical data for twelve months. The selected Company Segment is the Islamic University of Indonesia. The selection of universities follows the criteria, namely active accounts on Instagram, and has at least more than 10 posts in one month when social media is analyzed. The researcher observed each post uploaded by the Instagram account of the Islamic University of Indonesia from July 2023 to June 2024. Then the author recorded the number of likes, comments and content elements in each post on the Instagram account of the Islamic University of Indonesia. The elements in the post are categorized based on post typology related to advertising, events, information, entertainment, and Achievement. The data were then systematized in Excel Spreadsheet software to be analyzed using SPSS software version 25. This study uses the OLS (Ordinary Least Square) method to test the formulated hypothesis. The OLS (Ordinary Least Square) method estimates the parameters of the sample regression function so that the number of residuals is as low as possible and the estimated value is the closest possible value observed [16].

## III. RESULTS AND DISCUSSION

This section contains a discussion of the description of descriptive analysis and statistical analysis. The results of descriptive analysis are carried out to describe a summary of the dependent and independent variables used in the econometric model and the number of posts and the average likes and comments collected based on segments. While the results of statistical analysis are carried out to test and prove the research hypothesis.

*A. Descriptive Analysis*

This study uses secondary data from 330 posts by observing each post uploaded by the official Instagram account of Universitas Islam Indonesia. With the criteria for posts, namely active accounts on Instagram, and having at least more than 10 posts in one month when social media is analyzed. The descriptive analysis of this study is as follows:

*1. Dependent Variable Descriptive Analysis*

This section will explain the results of the descriptive analysis of the dependent variable consisting of likes and comments, the results are as follows:

table 1 description statistics of likes and comments

| Variable | Observations | Average | Mean | Std. Deviation |
|---|---|---|---|---|
| Likes | 330 | 463.789 | 1405.42 | 739.364 |
| Comments | 330 | 5.716 | 17.38 | 11.995 |

In the table above, is a summary of the dependent and independent variables used in the electrometric model and the number of posts collected by segment. Instagram with a total of 463,789 likes and 5,716 comments. The results show that the interaction between users on Instagram is more likes than

comments the reason for this result is that users spend more effort in writing comments on posts on social media. comments also appear as variables with lower SD, indicating lower data dispersion.

*2. Descriptive Analysis of Independent Variables*

This section will explain the results of the descriptive analysis of independent variables consisting of Advertising, Events, Information, Entertainment and Achievement, the results are as follows:

Table 2. Descriptive Statistics Of Independent Variables

| Post typology | Instagram | | |
|---|---|---|---|
| | M (mean) | Std. Deviation | Post (n) |
| Advertising | 0.20 | 0.403 | 330 |
| Events | 0.12 | 0.327 | 330 |
| Information | 0.36 | 0.480 | 330 |
| Entertainment | 0.22 | 0.416 | 330 |
| Achievement | 0.10 | 0.296 | 330 |

Based on the table above, it is found that the mean value of the advertising variable is 0.20 with Std. Deviation 0.403, the event variable is 0.12 with Std. Deviation 0.327, the information variable is 0.36 with Std. Deviation 0.480, the entertainment variable is 0.22 with Std. Deviation 0.416 and the achievement variable is 0.10 with Std. Deviation 0.296. Of the five independent variables, the mean value with the highest Std. Deviation is the information variable with an average value of 0.36 and Std. Deviation 0.480. And the independent variable with the lowest Std. Deviation is achievement 0.10 and Std. Deviation 0.296.

*B. Statistical Analysis of Research Hypothesis*

This section will explain the results of the statistical analysis of the research hypothesis consisting of the F test, adjusted R-Square and partial test results (T), the results are as follows:

*1. F Test (Simultaneous)*

This section will explain the results of the F test (simultaneous) in this study, this is done to determine the relationship between the independent variables and the dependent variable. The results are as follows:

Table 3. F Test (Simultaneous)

| F | | Sig. | |
|---|---|---|---|
| Like | comment | Like | Comment |
| 2.734 | 1.893 | 0.029 | 0.111 |

In the table below, the F value is 2,734 (likes) and 1,893 (comments) with a sig. value of 0.029 (like) and 0.111 (comments) sig. value. like <0.05, so it can be concluded that advertising, events, entertainment and achievement show that there is a significant influence simultaneously on likes and sig. value. comment> 0.05, so it can be concluded that advertising, events, entertainment and achievement show that there is no significant influence simultaneously on comments.

*2. R-Square*

This section will display the results of the R-Square test in this study:

TABLE 4 .R-SQUARE VALUE

| R-squared | | Adjusted R-square | |
|---|---|---|---|
| Like | Comment | Like | Comment |
| 0.033 | 0.023 | 0.021 | 0.011 |

In the table above, the Adjusted R-square like value is 0.021 (likes) and 0.011 (comments), the data shows that the contribution of the influence of the independent variable on the dependent like simultaneously is 2.1%. And the influence of the independent variable on the dependent comment simultaneously is 1.1%.

In the table above, the R-square like value is 0.033 (likes) and 0.023 (comments), the data shows that the contribution of the influence of the independent variable on the like simultaneously is 3.3%. And the influence of the independent variable on the comment simultaneously is 2.3%.

*3. Partial Test (T)*

In this section, the results of the partial test or T test will be displayed. The results are as follows:

TABLE 5. RESULTS OF THE T-TEST (PARTIAL)

| variabel | T | | Sig. | |
|---|---|---|---|---|
| Post type | Like | comment | like | comment |
| Adv | 0.343 | 1.328 | 0.732 | 0.185 |
| Event | 0.351 | 0.762 | 0.726 | 0.447 |
| Entert | 2.018 | 2.644 | 0.044 | 0.009 |
| Achiev | 2.875 | 1.414 | 0.004 | 0.158 |

In the table below, the advertising variable has a t value of 0.343 (likes) and 1.328 (comments) with a sig. value of 0.732 (likes) and 0.185 (comments). The event variable has a t value of 0.351 (likes) and 0.762 (comments) with a sig. value of 0.726 (likes) and 0.447 (comments). The entertainment variable has a t value of 2.018 (likes) and 2.644 (comments) with a sig. value of 0.044 (likes) and 0.009 (comments). And the achievement variable has a t value of 2.875 (likes) and 1.414 (comments) with a sig. value of 0.004 (likes) and 0.158 (comments).

*C. Discussion*

*1. The Influence of Advertising on Interaction of Posting*

In hypothesis 1, the t value is known to be 0.343 (likes) with a sig. value of 0.732 (likes) > 0.05 so it can be concluded that advertising has no effect on likes. The t value is known to be 1.328 (comments) with a sig. value of 0.185 (comments) > 0.05 so it can be concluded that advertising has no effect on comments.

Based on these values, it was found that advertising had no significant effect on likes and comments, so it can be concluded that H1 is not supported.

The results of this study contradict previous research conducted by Coelho et al. (2016) which stated that advertising has a statistically significant effect on likes, advertising provides greater engagement on Instagram [11]. However, this study is in line with the findings of Bonilla et al. (2020) who said that advertisement has a negative impact on likes but with

a low level of significance [13]. Research from Quijada et al. (2023) and Schultz, (2017) also stated that advertising has no effect on likes [9][17]. This could be the reason why the results of this study are different from the findings of previous studies.

2. *The Effect of Events on Interaction of Posting*

In hypothesis 2, the t value is known to be 0.351 (likes) with a sig. value of 0.726 (likes)> 0.05 so it can be concluded that events have no effect on likes. The t value is known to be 0.762 (comments) with a sig. value of 0.447 (comments)> 0.05 so it can be concluded that events have no effect on comments.

Based on these values, it was found that events had no significant effect on likes and comments, so it can be concluded that H2 is not supported.

The results of this study contradict previous research conducted by Tafesse, (2015) which stated that events had an effect on likes [18]. However, research by Tafesse, (2016) stated that events do not contribute to likes on brand posts [19]. Research conducted by Bonilla et al. (2020) also stated that events do not affect likes and comments [13]. This could be the reason why the results of this study are different from the findings of previous studies.

3. *The Effect of Information on Interaction of Posting*

In hypothesis 3, the Information variable is not explained in the partial test. The Information variable is included in the excluded variables where the variable is then automatically not included in the regression results because it is not worthy of being included in the regression equation in this model. This can happen in certain regression models, where according to SPSS if the variable is removed or not included in the model, the regression will be better.

Post typology Information in this study plays a role as a post that provides information to prospective students, students and Instagram users and those who follow the Universitas Indonesia Instagram where the post is expected to provide information. In other words, with the Post typology Information, it is hoped that it can help provide information to Instagram users and followers of the Universitas Indonesia Instagram.

Research conducted by Luarn et al. (2015) stated that people tend to like brand posts related to remuneration compared to posts related to information. The number of comments on information posts has fewer comments. This means that information posts tend to get less likes and comments. This could be the reason why the results of this study are different from the findings of previous studies [12]. However, this study is contrary to previous research conducted by Cvijikj & Michahelles, (2013) which stated that information content type has a significant and positive influence on likes and comments [15].

4. *The Influence of Entertainment on Interaction of Posting*

In Hypothesis 4, the t value is 2,018 (likes) with a sig. value of 0.044 (likes) <0.05 so it can be concluded that Entertainment

has an effect on comments. The t value and 2,644 (comments) with a sig. value of 0.009 (comments) <0.05 so it can be concluded that Entertainment has an effect on comments.

Based on these values, it was found that entertainment has a significant effect on likes and comments, so it can be concluded that H4 is supported.

The results of this study are in line with the research by Tafesse, (2015) which states that entertainment, part of the Brand post content type, has a significant positive effect on likes on brand posts [18]. However, the results of this study are in line with previous research conducted by Luarn et al. (2015) which states that entertainment posts tend to get less likes but comments show a higher number [18][20]. This could be the reason why the results of this study are different from the findings of previous studies.

5. *The Effect of Achievement on Interaction of Posting*

In hypothesis 5, the t value is known to be 2.875 (likes) with a sig. value of 0.004 (likes) <0.05 so it can be concluded that achievement has an effect on likes. The t value is known to be 1.414 (comments) with a sig. value of 0.158 (comments)> 0.05 so it can be concluded that achievement does not affect comments.

Based on these values, it was found that achievement had a significant effect on likes and achievement did not have a significant effect on comments, so it can be concluded that H5 is supported for likes and not supported for comments.

The results of this study are not in line with the research conducted by Quijada et al. (2022) where the results stated that achievement had fewer likes. However, the results of Quijada et al.'s research. (2022) are quite surprising where the results that might be expected are that the purpose of universities including achievement is to generate greater interest in universities. However, this study stated that achievement had positive results on likes [13].

## IV. CONCLUSION

This study aims to test the influence of Instagram marketing categorized based on post typology content, namely advertising, event, information, entertainment, and achievement on the interaction of posting, namely likes and comments. Based on the results of the hypothesis test conducted, the following conclusions were obtained: Advertising has no effect on likes and comments. This means that posts that fall into the advertising category do not affect the number of likes and comments. Events have no effect on likes and comments. This means that posts that fall into the event category do not affect the number of likes and comments. Information results for information are not explained in the results of the regression test/partial test. The Information variable is included in the excluded variable where the variable is then automatically not included in the regression results because it is not eligible to be

included in the regression equation in this research model. Entertainment has an effect on likes and comments. This means that posts that fall into the entertainment category invite many users to give more likes and comments. Achievement has an effect on likes and has no effect on comments. This means that posts that fall into the achievement category invite many users to give more likes, but get few comments. This study is expected to contribute to increasing insight regarding the influence of Instagram marketing on the interaction of posting. In line with the rapid development of digital media, insight into the use of social media also needs to be developed, especially in the development of content that attracts the attention of users. Currently, social media has an important role in higher education where social media is able to provide information related to universities, opportunities and other information related to higher education. This study adds insight into how the relationship. The more rapid social media, the use of social networks also needs to be developed. This study provides some insights for Instagram marketing in higher education to improve more interesting content through the use of marketing on social media. This finding can be a reason for universities to attract prospective students on social media. The results of this study encourage Instagram marketing in higher education to respond to and manage post typology types, namely advertising, events, information, entertainment and achievements in order to get more likes and comments. Entertainment and achievement have been shown to increase the number of likes.

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