Utilization of Social Media Platform in Promotional Activities by Analyzing User Interest

Tegar Priyo Wicaksono and Noerlina
Information Systems Department,
School of Information Systems,
Bina Nusantara University,
Jakarta, Indonesia 11480
nurlina@binus.edu

Tirta Nugraha Mursitama
International Relations Department,
Faculty of Humanities
Bina Nusantara University,
Jakarta, Indonesia 11480
tmursitama@binus.edu

Abstract
This research aims to analyze the interest of social media users in promotional activities. The design method in this research is a questionnaire for data collection and three variable factors, ease of use factor, content factor and feature usage factor, as a determinant of the interest of social media users. The analysis method uses SEM - PLS method and grouping the data with the k-means clustering data mining method. In this research, the interaction with using features in promotional activities affects user interest. The result show that ease of use does not significantly affect user interest. and the user content also does not significantly affect user Interest, but usage Features significantly affect user interest. The research conclusion is that the ease of use and content factors on Instagram does not significantly affect, and the feature factors in Instagram that are used have a significant influence.

Keywords
Social Media, Promotional activities, User Interest

1. Introduction
Activities in cyberspace, especially in communication media such as social media, people can easily find or get entertainment and the latest information. Social media is not only a communication medium, but social media users can share and exchange information through photos or videos with other users (Kanwar 2012), Social media users in Indonesia were around 150 million in 2019, and there was an increase in 2020, amounting to 160 million users (Pusparisa 2020). Therefore, social media can be used or utilized as a media platform that can provide information quickly to many users, one of which is utilization in promotional activities. Promotional activities can provide information or interact with other users, making promotional activities effective and interesting. Promotions are carried out on social media, such as businesses. Users who have creative ideas such as pictures, photos, videos, and music can use social media as a medium for promotion. Social media in this research focuses on social media called Instagram. The researchers chose Instagram based on the large number of users in Indonesian society. According to GoodnewsForIndonesia.com, there were 62,230,000 Instagram users in January 2020, and in May 2020, there was an increase in users to 69,270,000 Instagram users in Indonesia (M. Iman 2020).

1.1 Scope
Social media is a medium used to socialize and a platform where people can search or provide information to each other online, allowing people to interact freely without being limited by space and time. In social media, users can discuss or exchange ideas with each other. Instagram social media is a group of applications using an internet base and web 2.0 technology that allows the exchange and creation of user-generated content, which can be called content created by users who create user-generated content. It can be in the form of photos, videos and also music (Haenlein 2010), so in social media, people as users can provide their content or work, which will be uploaded later, and the

results will be seen by other social media users. There are several names on social media, such as Youtube, Facebook, Twitter, and Instagram. Instagram is the main focus of this research. Instagram, apart from providing a platform for sharing photos or videos, Instagram provides several features that make it easier for users to interact with other users, including:

Tags or Hashtags

The user can use this feature when the user has uploaded or taken an image or video, which will later be posted to the user account. The function of this feature is the user can tag the video or photo that the user wants to post. Users can tag the accounts of friends and other users who are friends or not, so when the user tags other user accounts or friend accounts that have been marked, they will be able to directly see the posts that have been uploaded. Furthermore, the Hashtag feature can be used as a fence logo that functions when there are people who want to find the same object or content as seen previously. Users can search for or select Hashtags listed on posts so users can get categories of objects and content the same as seen previously. Similar to the use of the Tag feature, users can use this Hashtag feature when users want to post videos or photos, but in this feature, users do not mark other user accounts or friends but mark the results of user posts as photos or videos as certain categories, for example, the user has uploaded and wants to be posted to the user account, in the post the user wants to enter a shoe picture, in this case, the user can use this Hashtag feature by writing something like (#RunningShoes) when the picture has been posted to the account then it is possible the picture seen by other users increased because when other users wanted to see the Hashtag (#) category of #RunningShoes, one of the search results contained posts that had been posted previously.

Instagram Live and Instagram Stories

One of the next features on Instagram, namely Instagram Story, is a feature that Instagram users can use to capture or provide the latest videos or pictures into the user's timeline or status. With this feature, other users can see our latest activities or status without going to our profile because the status uploaded will be visible on each of our friends' homepages (Followers), and our status will be visible at the top of the application. The next feature is Instagram Live or broadcast. In this feature, users can broadcast live anywhere, so when other users see the live broadcast, they will be able to make comments directly to the users. They can be directly answered or comment on statements from other users about the live broadcast so that interactions between application users can be interactive.

1.2 Research Questions

Many social media users in Indonesia, especially on Instagram social media. Various kinds of interests differ from one user to another. In this case, there are several possible aspects of users who are happy or interested in using Instagram social media, from an interest in interacting to seeing posts given by other users. With so many possibilities, the researchers want to know what aspects make people, and especially Instagram users use the social media application. The research questions are (1) Is the ease of using social media one of the reasons people are interested in using Instagram social media? ; (2) Is the user's interest in using Instagram social media influenced by the type of content?; (3) Does the feature usage in Instagram social media affect user interest in using Instagram?.

1.3 Goals and Functions

This research activity is expected to get results that can help some people in promotional activities or increase the number of potential enthusiasts both from selling products and services or getting people interested from providing content or creativity on social media. The following are the goals and expected benefits of this research.
The goals are (1) Conduct an analysis of the ease of use in influencing public interest in Instagram; (2) Analysis of the type of content influencing public interest in Instagram; (3) Analysis of the feature used as an interaction tool in influencing public interest in Instagram.

1.4 Research Methodology

The data collection method that researchers used was quantitative. Primary data collection was done by making a questionnaire that would later be given and answered by people who use social media, especially Instagram. The questionnaire contains several questions to obtain the desired data results and can be used as indicators and variables for research needs. In secondary data, researchers used articles, news and opinions from several observers on the use of Instagram in Indonesia, such as books, journals and websites.

The first analysis method is to perform a series of data tests using the SEM PLS (Structural Equation Modeling Partial Least Square) method, a statistical procedure technique used to explain the relationship between several variables. In

explaining the relationship, SEM examines the structure of the relationship expressed by several equations that are similar to the equations in multiple linear regression. The equation describes the relationship construct (latent variable) used in the analysis (J. Hair, W. Black, and B. Babin 2010). In the second analysis method, the researchers use data mining techniques with the K-means clustering method, which groups data into several clusters or groups so the data in one cluster has the maximum level of similarity. The data between clusters has the minimum similarity (Tan Steinbach, and Kumar 2006). K-means clustering is a non-hierarchical cluster analysis method that seeks to partition existing objects into one or more clusters or groups of objects based on their characteristics, so objects with the same characteristics are grouped into the same cluster, and objects with different characteristics are grouped into other clusters (I. H. Witten, E. Frank, and M. A. Hall 2016).

2. Literature Review

In this research, researchers use variables as a reference for the questions in the questionnaire. The variables in the research are:

1) Ease of Use of social media

In using communication technology, especially in using social media such as Facebook, Youtube, Instagram, MySpace, and Twitter which have grown rapidly at this time where the user can exchange information easily and quickly, besides that, there is a factor of trust and ease in using the media from sharing information to the ease of using social media (N. Chinje and R. Chinomona 2018).

2) Instagram User Content

Social Media, or what can be called a social network, is a group or collection of internet-based platform applications that are built on the ideological and technological foundations of Web 2.0 and allow the creation and exchange of user-generated content which can be created by users in the form of photos, videos or text (Haenlein 2010). Online Social Networks and Media (OSNEM) is one of the most frequently used communication platforms in the last 15 years, with a high socio-economic value. Today, OSNEM is regularly used by billions of users to interact, and most online social media are the main platforms, among others, for the dissemination of content and opinions, social and professional networks, recommendations, and certain guidelines (M. Conti and A. Passarella 2017).

3) Features in Instagram

Social media is a term that describes a variety of technologies that are used to tie people into collaboration, exchange information, and interact through web-based messaging and application content. Internet and social media are always developing, and the various technologies and features available to users are always changing (M. Cross 2013). With this statement in social media, apart from getting interesting features that can be used when using social media, the convenience features are the factor for people to use social media, especially Instagram. Social media has one basic character: the interaction or formation of networks between users. Social media is not just expanding friendships or followers but also must be built with the interaction between users with various features such as users being able to comment or provide opinions or statements to other users (Nasrullah 2015). In this case, the researchers use three features in Instagram as a feature used to interact with other users, namely, Tags or Hashtags, Instagram Live and Instagram stories.

4) Usage Interest

Social media is an Internet-based media that allows users to interact and present themselves, either directly or indirectly, with the wider community or not, which encourages the value of user-generated content such as photos, videos, and text. As well as perceptions of interactions with other people. Therefore, interesting content or information from other media makes people use social media (Hayes 2015). Understanding the interests of social media users is key for many apps that need to characterize or group them to recommend services and find other individuals with similar interests. Several factors or indicators of user interest in using social media, especially Instagram, which is the interaction between users and creativity (Y. T. Huang and S. F. Su 2018). Carrying out promotional activities on Instagram such as business or business promotion or Digital Marketing is a marketing activity including branding and promotion using various web-based media such as blogs, websites, e-mail, AdWords, or social networks or social media. That way, business through digital platforms, especially in social media, can serve as a forum to provide information about what people offer and provide to the public (Tarigan 2009). The impact of digital economic developments on social media is a separate way for the government and the community to become a forum for carrying out various economic transactions, one of which is a promotion (Widayati 2020). In social media, people not only can-do promotions on businesses but can be used for creative promotion needs. Creativity can be interpreted as follows:

the ability to respond, provide solutions to all existing solutions, involve oneself in the discovery process for problems, intellectual abilities, cognitive styles, and personality/motivation and produce or create something new. So social media can be used as a place to provide creativity to other users (Campbell 2017).

2.1 Data Collection

In collecting data in this research, it was divided into primary and secondary data. For primary data, the researchers used from the questionnaire distributed to the public, especially in the Jabodetabek area. On Instagram, the user data is through the source site www.GoodNewsForIndonesia.com, there are 69,270,000 Instagram users in Indonesia (M. Iman 2020). Because the population of Instagram users in Indonesia is quite large, around 69,270,000 and requires a long research time. The researchers calculated the percentage of the total population in Indonesia, which amounted to ± 270,200,000 with the total number of area scopes that the researchers took, namely in Greater Jakarta. Amounted to 17,871,053 with details Jakarta 10,817856, Bogor 1,029,084, Depok 1,844,932, Tangerang 1,742,604, Bekasi 2,436,577 based on data from the Central Statistics Agency (Statistik 2020) detailed in the source site www.infojabodetabek.com to produce the total percentage of 6.6%. After that, the researchers calculated the total number of Instagram users in Indonesia of 69,270,000, resulting in a population of 4,571,820, assuming that respondents who answered were at least using devices or tools in the form of smartphones and using the internet. Then the researchers took a sample from the population using the Slovin formula. In sampling, the researchers used a margin of error of 10% and a confidence level of 90%. The margin of error in the Slovin formula is a margin of error that can still be tolerated by researchers when the results with a certain margin of error do not have a negative impact or harm the community (Ryan 2013). In secondary data, researchers use the data from official website sources, news sites, journals and books that provide information and data about social media, especially on Instagram in Indonesia. The variables used in this research are divided into two, independent or exogenous variables (X) and dependent or endogenous variables (Y) using latent observed variables, namely, in each variable, there is a manifest variable or supporting variable as well as the research model using the one-tailed method, which explains the effect of exogenous variables (X) with endogenous variables (Y). (Figure 1)

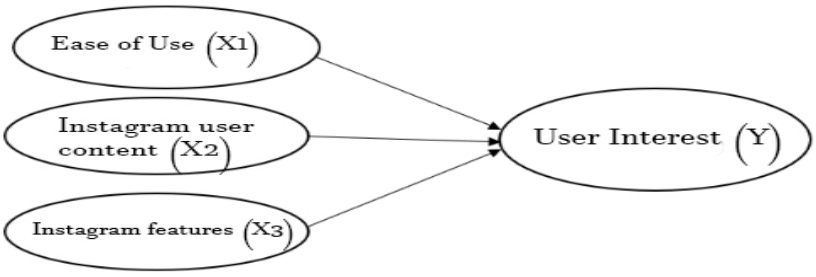

Figure 1. Research Model

The X and Y variables in the questionnaire use a Likert scale for each answer given by the Instagram user community, with each answer weight, namely: Positive statement for every question will give bigger number, so the larger the number is chosen, the more positive or better the answer. In this research, the researchers use three hypotheses as the answer assumptions in the research based on the influence of the exogenous variable X with the endogenous variable Y.

H1: Ease of use has a significant effect on the interest of Instagram users
H2: The type of Instagram content has a significant effect on the interest of Instagram users
H3: Instagram features have a significant effect on the interest of Instagram users.

2.2 Data Processing

The data analysis used by the researchers in this research aims to answer several questions that have been listed in the identification of the problem. The data analysis method used is a statistical analysis method using SmartPLS 3.0 software and the Rapid Miner application in the analysis and grouping process with K-Means clustering data mining. In the first data processing, the researchers use an analytical technique using Structural Equation Partial Least Square or SEM with PLS, which is an alternative technique in SEM analysis where the data used does not have to have a multivariate normal distribution. In SEM with PLS, the value of the latent variable can be estimated according to a linear combination of manifest variables associated with a latent variable (Monecke and Leisch 2012). SEM with PLS consists of 3 components, namely:

Outer Model (Measurement Model)

The measurement model or Outer model describes the relationship between latent variables and manifest variables (indicators). In the outer model, there are two types, namely the formative indicator model and the reflective indicator model. In this research, the researchers use a reflective indicator model because an indicator reflects the construct or the latent variable, so if there is a change or reduction in the indicator, it does not affect the construct or latent and vice versa. In the equation, that is $x = \lambda_X \xi + \delta_x$ $y = \lambda_y \eta + \varepsilon_y$ (Monecke and Leisch 2012)

At the stage of measuring the suitability of the Outer model, there are 3 test steps: Convergent Validity Test is used to prove that the respondents can understand the questions on each latent variable in the research. In exploratory factor analysis, which is a statistical method used to build a structural model consisting of one set or many variables so the loading factor criteria for research must be greater between 0.6 or 0.7, and if the AVE (Average Variance Extracted) value is more of 0.5 then it is said to be valid (J. Hair, W. Black, and B. Babin 2010).

Discriminant validity test by looking at the value of Cross - loading. If the indicator has a higher correlation value on its latent variable and has a lower correlation on other latent variables, it is said to be valid (J. Hair, W. Black, and B. Babin 2010). A reliability test is used to determine whether the research instrument is reliable. The instrument is reliable enough to be used as a data collection tool because the instrument is good. If the data is appropriate or reliable, then no matter how many times the data are taken will remain the same, so the instrument is already reliable and will produce reliable data (Arikunto 2014). The minimum magnitude of the Cronbach Alpha value is 0.7 or more than 0.7, so it can be said to be reliable, while if the Cronbach Alpha value is 0.8 or 0.9, then it is said to be very reliable (J. Hair, W. Black, and B. Babin 2010).

Inner Model (Structural Model)

The structural model or inner model describes the relationship between latent variables, such as the relationship between X (exogenous) and Y (endogenous)

$\eta_j = \sum \beta_j \eta_i + \sum \gamma_j \xi_b + \zeta_j$ (Monecke & Leisch, 2012)

At the stage of measuring the suitability of the Inner model, there are four testing steps: The R-Square test is used to measure how much influence the exogenous (independent) latent variable has on the endogenous (dependent) latent variable. If the R-square value is 0.33, it is categorized as moderate (enough), and if the R-square is 0.19, it is categorized as a weak relationship (Marcoulides 1998).

The F-Square test is used to measure and determine the goodness of the model of each exogenous latent variable. If the F-Square value is 0.02, then the model is categorized as weak, and if the F-Square value is 0.15, then the model is categorized as strong enough (J. Hair, W. Black and B. Babin 2010).

The Q-Square test method is used because the indicators on the endogenous variables are reflective in this research. The Q-Square test is used to determine whether the model on the endogenous variable has predictive relevance, so if the Q-Square value > 0, then it shows evidence that the observed values have been reconstructed properly, so the model has predictive relevance. In contrast, if the Q-Square value is < 0, then it is said that the model has no predictive relevance (J. Hair, W. Black, and B. Babin 2010).

Hypothesis Testing (Significance) is used to calculate the effect of the exogenous latent variable (Independent) on the endogenous latent variable (Dependent) or the calculation of hypothesis testing to get the results of whether the exogenous latent variable has a significant effect on the endogenous latent variable using t values and t tables. The hypothesis testing in SEM-PLS can be done by using the t-count value with the t-table value with a confidence level of 95% (alpha 5%) and the degree of freedom (df) value of the amount of data -2 or n-2 (J. Hair, W. Black, and B. Babin 2010).

Weight relations

This section is a special feature of SEM with PLS that is not found in covariance-based SEM. The weight relation score shows the relationship between the variance values between the indicators and their latent variables, and the equations are:

$\xi = \sum k\, W_{kb} X_{kb}$

$\eta = \sum k\, W_{ki} Y_{ki}$ (Monecke & Leisch, 2012)

In the next data processing, the researchers grouped the data using data mining clustering with the K-Means method with the following equation.

$j(v_1, v_2) = \sqrt{\sum_{K=1}^{N} (v_1(K) - v_2(K))^2}$ (Tan et al., 2006)

3. Result And Discussion

The first step in the data analysis technique using SEM-PLS is to design a structural model (inner model) that explains the relationship between exogenous latent variables and endogenous variables. The next step in using the SEM PLS technique is to design a measurement model (outer model), (Figure 2) namely the latent variable with manifest or indicator variables, which are known to be: In the X1 variable, namely ease of use, the reflective or manifest indicators are X1.1, the Instagram display is easy to understand, X1.2 is easy to find photos or videos, X1.3 is easy to find information, X1.4 is fast to get information, X1.5 features that are helpful. X1.6 fun to upload, X1.7 activity on Instagram. In the X2 variable, namely Instagram User Content, the reflective or manifest indicators are X2.1 types of informative content, X2.2 types of entertaining content, X2.3 types of news content, X2.4 types of creative content, X2.5 types of image posts, X2.6 video post type. In the X3 variable, namely features in Instagram, which is reflected in indicators or manifests, namely X3.1, the tag feature helps, X3.2 the tag feature is easy to use, X3.3 the stories feature is easy to use, X3.4 the stories feature helpful, X3.5 editing the features stories, X3.6 easy-to-use live features, X3.7 attractive user live features. In the Y variable, namely user interest in the reflective indicator or manifest, namely Y1.1 editing makes it interesting, Y1.2 short video duration, Y1.3 long video duration, Y1.4 additional description becomes interesting, Y1.5 use the keyword search tag feature, Y1.6 use the tag feature on posts, Y1.7 enjoy the stories feature, Y1.8 use the stories feature, Y1.9 in the live feature can interact with other users, Y1.10 in the live feature can ask questions with other users. So, it is known the relationship between the design of the measurement model (outer model) (Figure 1) to the reflective indicators, namely:

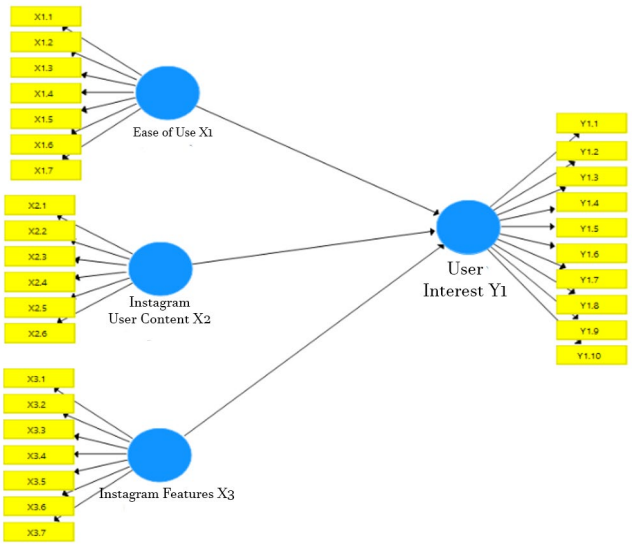

Figure 2. Outer model (Measurement Model)

3.1 Measurement of Outer Model

The next step is to calculate the suitability of the measurement model (Figure 2), which consists of 3 testing steps as follows: (Table 1) Convergent Validity Test, in the final results, several indicators are omitted because the results of the loader factor do not meet the criteria. In the calculation results, an indicator is omitted or deleted. In the X1 variable, one indicator is removed or deleted, namely X1.1. In the X2 variable, one indicator is removed or deleted, namely X2.5. In the X3 variable, there is one indicator that is removed or deleted, namely X3.5, and in the Y variable, there

are four indicators that are omitted or deleted, namely Y1.1, Y.1.2, Y1.3, Y1.4 deletion or eliminating these variables because the total loader factor value is less than 0.6 so it is said to be invalid (J. Hair, W. Black, and B. Babin 2010). While the valid indicators on the X1 variable are X1.1 X1.2, X1.3, X1.4, X1.5, X1.7 on the X2 variable, namely X2.1, X2.2, X2.3, X2.4, X2.6 on X3 variables, namely X3.1, X3.2, X3.3, X3.4, X3.6, X3.7 and the Y variables, namely Y1.5, Y1.6, Y1.7, Y1. 8, Y1.9, Y.10 because the value on the loader factor is more between 0.6 and 0.7 so it is said to be valid (J. Hair, W. Black, and B. Babin 2010).

Table 1. Average Variance Extracted (AVE)

Laten Variable (Construct)	Average Variance Extracted (EVA)	Explanation
Ease of Use (X1)	0.529	Valid
Instagram User Content (X2)	0.530	Valid
Features in Instagram (X3)	0.563	Valid
Users interest (Y)	0.523	Valid

The results of the calculation of the AVE value show (Table 1) that the value of each variable has a value above 0.5 according to n, so it is said to be valid (J. Hair, W. Black and B. Babin 2010). Discriminant Validity Test For reflective indicators is necessary to test discriminant validity using the comparison values in the cross-loading table. An indicator is said to be valid if it has the highest loading factor value on its latent variable and lowers on a different latent variable. In the results of the calculation of discriminant validity, it is known that the indicator is valid because the results of the loading factor value on each indicator are greater than the values in other indicators. Reliability Test. (Table 2) The reliability test on the variable is reliable if the value on Cronbach alpha and the value on Composite reliability is 0.7 (J. Hair, W. Black, and B. Babin 2010).

Table 2. Reliability Test

Latent Variable (Construct)	Cronbach Alpha	Composite Reliability	Explanation
Ease of Use X1	0.823	0.870	Reliable
Instagram User Content X2	0.778	0.849	Reliable
Instagram Features X3	0.845	0.885	Reliable
User Interest Y	0.818	0.868	Reliable

The results of the reliability test calculation show that all latent variables have Cronbach alpha and Composite reliability values greater than 0.7, so it can be said that the latent variables are reliable. (Table 2)

3.2 Structural Model Fit (Inner Model)

The value of R-Square (R^2) is used to measure how influential the exogenous latent variable is with the endogenous variable. The result value (R^2) if 0.33 is categorized as moderate or good enough, the calculation result (R^2) shows the number 0.462, which means the value is above 0.33, so it can be categorized as a moderate or good enough model (Marcoulides 1998). The F-Square test determines the relationship between exogenous and endogenous variables' influence. Following are the output results of the F-Square test calculation using smartPLS. The results of the F-Square calculation show that the latent variable X1 with the latent variable Y has a total value of $0.002 < 0.02$, so it is said to have no effect because the total value of F-Square is less than 0.02. The latent variable X2 with the latent variable Y has a total value of $0.024 > 0.02$, so it is said to have a weak influence on the latent variable Y because the F-Square value is more than 0.02. and the latent variable X3 with the latent variable Y having a total value of $0.271 > 0.15$, so it is said to have enough influence on the latent variable Y because the F-Square value is more than 0.15. The Q-

Square test determines whether the prediction capability uses blindfolding with the smartPLS application. In calculating the Q-Square test, the Sum Square Observation (SSO) and Sum Square Prediction Error (SPE) values are obtained. The Q-Square value is 0.202 > 0, so if the Q-Square value is more than 0, the model has predictive relevance (J. Hair, W. Black, and B. Babin 2010). The hypothesis significance test on SEM-PLS aims to determine the effect of exogenous variables with endogenous variables. Testing with the SEM-PLS method is carried out using the Bootstrapping process in smartPLS. Hence, the relationship between exogenous and endogenous variables' influence is as follows.

Table 3 Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STD)	T Statistic (IO/STDEV)	P Value
H1	0.051	0.061	0.109	0.472	0.319
H2	0.139	0.103	0.103	1.358	0.088
H3	0.556	0.556	0.093	5.998	0000

In the previous hypothesis testing, the T table value for the 95% confidence level (alpha of 5%) and the degree of freedom (df), i.e., n -2 = 100 – 2 = 98 was 1,984. The following are the tests of the hypothesis on each latent variable which are shown as follows. (Table 3)

Testing the hypothesis of the Ease-of-Use variable on the User Interest variable
H0: Latent variable of ease of use has no significant effect on the User Interest latent variable
H1: Latent variable of Ease of Use significantly affects the latent variable of User Interest.
The results of the calculations in the hypothesis testing table on the Ease of Use latent variable (X1) with the User Interest latent variable (Y), namely the T statistic value (t count) of 0.472 < t table (1.986), while the value in the original sample shows a number of 0.051 so it can be said that the relationship between the latent variable Ease of Use (X1) and the latent variable User Interest (Y) is positive, but the value at t count is less than t table, so it is said that the latent variable X1 has no significant effect on the latent variable Y or accepts H0 rejects H1. (Table 3)

Hypothesis testing of the Instagram User Content variable (X2) against the User Interest variable.
H0: The latent variable of Instagram User Content (X2) has no significant effect on the latent variable of User Interest
H1: The latent variable of Instagram User Content (X2) has a significant effect on the latent variable of User Interest
The results of the calculations in the hypothesis testing table on the latent variable Instagram User Content (X2) with the latent variable User Interest (Y), namely the statistical T value (t count) of 1.358 < t table (1.986). In contrast, the value in the original sample shows a number of 0.139, so it can be said that the relationship between the latent variable Instagram User Content (X1) and the latent variable User Interest (Y) is positive. Still, because the value at t count is less than the t table, it can be said that the latent variable X2 has no significant effect on the latent variable Y or accepts H0 rejects H1.

Hypothesis testing of feature variables in Instagram (X3) on user interest variables
H0: The latent variable of features in Instagram (X3) has no significant effect on the latent variable of User Interest
H1: The latent variable of features in Instagram (X3) has a significant effect on the latent variable of User Interest
The results of the calculations in the hypothesis test table on the latent variable Features in Instagram (X3) with the latent variable User interest (Y), namely the statistical T value (t count) of 5,998 > t table (1,986) and the value in the original sample shows a number of 0.556, so it can be said that the relationship between the latent variable features in Instagram (X3) and the latent variable user interest (Y) is positive and significant because the value of t count > t table or accept H1 rejects H0.

Table 4. Hypothesis Conclusion

Hypothesis	**Result and Explanation**
Ease of Use	Accept H0 Reject H1
Instagram User Content	Accept H0 Reject H2
Features in Instagram	Reject H0 Accept H3

In the results of hypothesis testing, (Table 4) it can be concluded that ease of use (X1) does not significantly affect user interest (Y). So, it can be concluded that the number of values in the data for the Ease-of-Use Latent Variable (X1), whether small or large, does not significantly affect user interest. The use of social media that can be understood or used easily will continue to make users interested in using social media, and users can use social media effectively. In this case, ease of use does not affect user interest in terms of interaction interest or attention to certain posts on social media, but rather the ease of use only influences users to use social media sustainably (A. Morgan-Thomas, and L. Dessart 2020).

The latent variable Instagram User Content (X1) does not significantly affect user Interest (Y). So, it can be concluded that with the number of values in the data, the Latent variable Instagram User Content (X2), both small and large, does not significantly affect user interest, but if viewed from the results of calculations in F-Square, it is found that Instagram User Content variable has a weak effect on latent variables User Interest. This result is different from the results of research (H. Shahbaznezhad and R. Dolan 2021), which stated that when people want to make other users on social media interested in the post or information they want to provide, it is necessary to pay attention to what content they want to provide because in providing content, content delivery can make other users interested actively or passively in the information provided through the content.

As well as on the results of the calculation of the hypothesis test latent variable Usage Features (X3) significantly affect User Interest (X3). So, it can be concluded that the number of values in the Feature Variable data in Instagram (X3), both small and large, has a significant effect on user interest. This result is the same in research by (S. Shawky, K. Kubacki, and T. Dietrich 2020) which states that in making consumers or the public interested or paying attention and being interested in what is offered, a good and sustainable connection or interaction with the community is needed when carrying out marketing or promotional activities in social media. In social media itself, some features support and make it easier to continue to provide the latest information to the public or other social media users. After testing the measurement model and structural model and the final results of the model created using smartPLS.

3.3 Data mining Clustering K-Means

After performing the analysis technique using SEM PLS, the next step is to process the data by clustering or grouping the data using the K-Means method. The data is processed using the Rapid Miner application. Data grouping is used to find the same data. Clustering is a process of grouping data into several clusters or groups. Hence, the data in one cluster has a maximum level of similarity, and the data between clusters has a minimum similarity (Tan et al. 2006). The following are the results of processing K-Means Clustering data using a rapid miner with a total cluster of 2 and the calculation using data from the use of features in Instagram, resulting in clusters, namely:

In the cluster or group criteria, the researchers use data from data collection in the form of the usage of features on Instagram that the researchers use because the results of hypothesis testing on the Feature variable in Instagram have a significant effect on the user interest variable. The researchers take the total number of features using values such as on the Tag or Hashtag, Instagram Stories, and Instagram Live features to calculate K-Means clustering. There is the lowest usage value and the highest usage value in each cluster. After getting the results of calculations using K-means clustering, it is known that there are 52 data in cluster 1 and 48 in cluster 2. The following details are on the clusters or groups that have been obtained. (Figures 3, 4, 5 & 6)

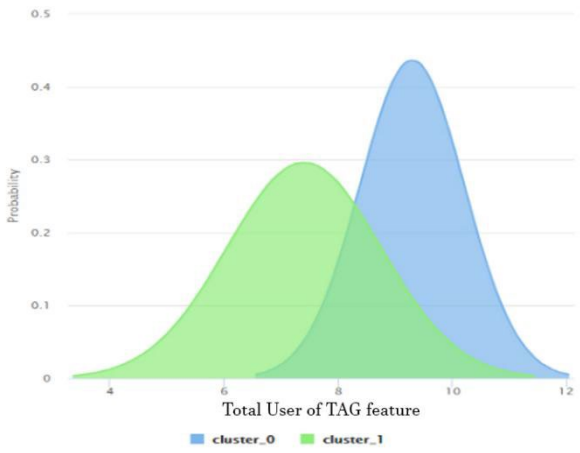

Figure 3. Cluster Diagram for Tag or Hashtag Feature Use

In the diagram of the use of the tag or hashtag feature, it is known that the data in cluster 1 or marked in blue is higher than the data in cluster 2, which is marked in green. So, in cluster 1, the use of the Tag or Hashtag feature is more positive or has a greater value.

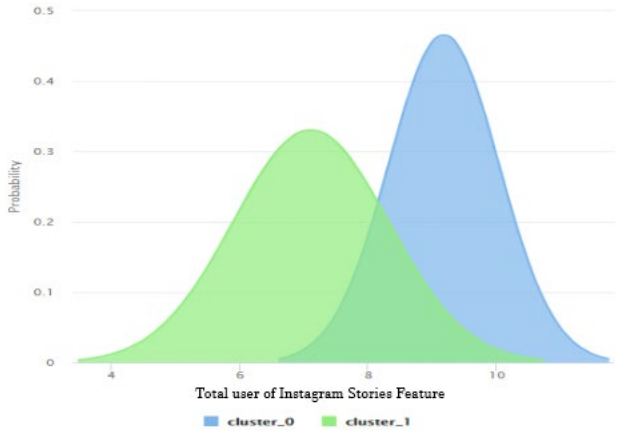

Figure 4. Cluster Diagram for Instagram Stories Feature Use

The diagram using the Instagram Stories feature shows that the data in cluster 1 or marked in blue is higher than the data in cluster 2, which is marked in green. So, in cluster 1, the use of the Instagram stories feature is more positive or has a greater value.

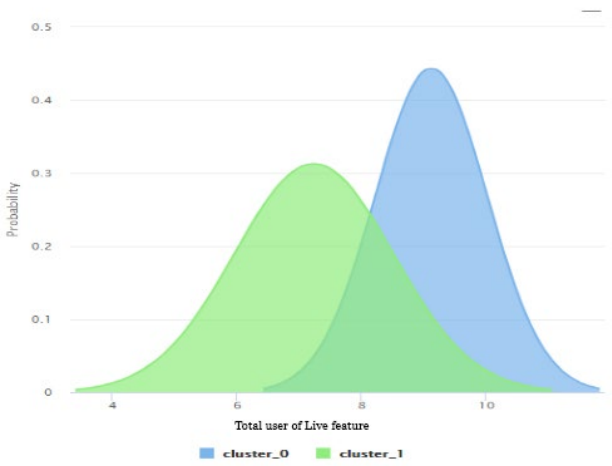

Figure 5. Cluster Diagram for Instagram Live Feature Use

The diagram using the Instagram Live feature shows that the data in cluster 1 or marked in blue is higher than the data in cluster 2, which is marked in green. So in cluster 1, the use of the Instagram Live feature is more positive or has a greater value.

Figure 6. Cluster data Diagram Base on gender and time of use Instagram

In the results of cluster data processing, it is known in the table that cluster 1 and cluster 2 have the largest number of time data that are often used, namely at night, in which men and women dominate. In Cluster 1, it was found in the afternoon and morning, there were more male users than female users, and in the afternoon, there were more female users than male users.

4. Conclusion

The conclusion of the research "Utilization of Social Media Platforms in Promotional Activities by Analyzing User Interests", which has been examined on the results of the questionnaire on data collection, is that the feature variable in Instagram X3 has a significant influence on user Y interest which features are used to interact with other users. For people who want to try to do business using social media platforms, especially on Instagram social media, they can pay a little attention to the type of content that will be uploaded or promoted, and pay full attention to the use of features on Instagram, choose features that can make business promotions interesting with the use of Tag or Hashtag feature which can be used as keywords for every business in every uploaded post so when other users want to find or are interested, they will be able to find the post. The second is Instagram Stories which can be used as an attractive promotional feature that can be used by every business that wants to do a short or long promotion. The Instagram stories feature is very easy to see by other users, so it can easily attract the attention of other users. The third feature

is Instagram Live which can be used when businesses want to conduct live broadcasts with other users in direct activities. Other users can easily and quickly interact or ask questions. When doing promotions, it can be done better at night because, seen from data processing results with Clustering data mining, Instagram social media users use social media more at night.

References

A. Morgan-Thomas, L. Dessart, and C. V. Digital ecosystem and consumer engagement: A socio-technical perspective. *J. Bus. Res.*, *121*, 713–723. (2020). https://doi.org/10.1016/j.jbusres.2020.03.042

Arikunto, S. *Prosedur penelitian suatu pendekatan praktik*. Rineka Cipta.v

Campbell, D. *Mengembangkan Kreativitas diterjemahkan oleh A.M. Mangunhardjana*. Yogyakarta: PT. Kanisius (2017)..

H. Shahbaznezhad, R. Dolan, and M. R. The Role of Social Media Content Format and Platform in Users' Engagement Behavior. *J. Interact. Mark*, *53*, 47–65. (2021).https://doi.org/10.1016/j.intmar.2020.05.001

Haenlein, A. M. K. and M. Users of the world, unite! The challenges and opportunities of Social Media. *Bus. Horiz*, *53*(1), 59–68. (2010). https://doi.org/10.1016/j.bushor.2009.09.003

Hayes, C. T. C. and R. A. social media: Defining, Developing, and Divining. *Atl. J. Commun*, *23*(1), 46–65. (2015). https://doi.org/10.1080/15456870.2015.972282

I. H. Witten, E. Frank, M. A. Hall, and C. J. P. Data Mining: Practical Machine Learning Tools and Techniques. *Data Min. Pract. Mach. Learn. Tools Tech*, 1–621. (2016). https://doi.org/10.1016/c2009-0-19715-5

J. Hair, W. Black, B. Babin, and R. A. Multivariate Data Analysis: A Global Perspective. *Multivar. Data Anal. A Glob. Perspect*, *7*. Retrieved from (2010).https://www.researchgate.net/publication/237009923_Multivariate_Data_Analysis_A_Global_Perspective

Kanwar, V. T. and P. *Understanding Social MediaVarinder*. BookBoon. (2012).

M. Conti and A. Passarella. Online Social Networks and Media. *Online Soc. Networks Media, 1*(3–6). (2017). https://doi.org/10.1016/S2468-6964(17)30045-9

M. Cross. Social media security: Leveraging social networking while mitigating risk. *Soc. Media Secur. Leveraging Soc. Netw. While Mitigating Risk*, 1–328. (2013). https://doi.org/10.1016/C2011-0-09032-4

M. Iman. Pengguna Instagram di Indonesia Didominasi oleh wanita dan generasi milenial. (2020).Retrieved March 9, 2021, from https://www.goodnewsfromindonesia.id/2020/06/14/pengguna-instagram-di-indonesia-didominasi-wanita-dan-generasi-milenial

Marcoulides, W. W. C. and G. The partial least squares approach to structural equation modeling. (1998).*Stat. Strateg. Small Sample Res*. Retrieved from https://www.researchgate.net/publication/311766005_The_Partial_Least_Squares_Approach_to_Structural_Equation_Modeling

Monecke, A., & Leisch, F. SemPLS: Structural equation modeling using partial least squares. *Journal of Statistical Software*, *48*(3) (2012).. https://doi.org/10.18637/jss.v048.i03

N. Chinje and R. Chinomona. The influence of trust and ease of use of social media platforms on South Africa's generation y social media use intention and information sharing. *Soc. Media Mark. Emerg. Concepts Appl*, 93–112. (2018).https://doi.org/10.1007/978-981-10-5323-8_7

Nasrullah, R. *Media Sosial Perspektif Komunikasi, Budaya dan Sosioteknologi*. Bandung: Simbiosa Rekatama Media. (2015).

Pusparisa, Y. Pengguna Samrtphone diperkirakan Mencapai 89% populasi pada 2025. (2020).Retrieved from https://databoks.katadata.co.id/datapublish/2020/09/15/pengguna-smartphone-diperkirakan-mencapai-89-populasi-pada-2025

Ryan, T. P. Sample Size Determination and Power. *Sample Size Determ. Power*, 1–374, (2013).. https://doi.org/10.1002/9781118439241

S. Shawky, K. Kubacki, T. Dietrich, and S. W. A dynamic framework for managing customer engagement on social media. *J. Bus. Res*, *121*, 567–577. (2020).https://doi.org/10.1016/j.jbusres.2020.03.030

Statistik, B. P. *Jumlah Penduduk Hasil Proyeksi Menurut Provinsi dan Jenis Kelamin (Ribu Jiwa), 2018-2020*. (2020). Retrieved from https://www.bps.go.id/indicator/12/1886/1/jumlah-penduduk-hasil-proyeksi-menurut-provinsi-dan-jenis-kelamin.html.

Tan, P.-N., Steinbach, M., & Kumar, V. *Introduction to Data Mining*. Boston: Pearson Education. (2006).

Tarigan, R. S. and J. *Creative Digital Marketing*. Alex Media Komputindo. (2009).

Widayati, N. S. B. M. and T. Dampak Perkembangan Ekonomi Digital terhadap Perilaku Pengguna Media Sosial dalam Melakukan Transaksi Ekonomi. *J. Konsep Bisnis Dan Manaj*, *6*(2), 234–239(2020)..

https://doi.org/10.31289/jkbm.v6i2.3801
Y. T. Huang and S. F. Su. Motives for instagram use and topics of interest among young adults. *Futur. Internet*, *10*(8). (2018). https://doi.org/10.3390/fi10080077

Biographies

Tegar Priyo Wicaksono is student of Information Systems at the School of Information Systems, Bina Nusantara University.

Noerlina is a Senior Lecturer at the Information Systems Department, School of Information Systems, Bina Nusantara University.

Tirta Nugraha Mursitama is Professor of International Relations at the Faculty of Humanities, Bina Nusantara University.