Journal of Digital Marketing and Communication

Research Article
Volume 5(1), 2025, 48–65
https://doi.org/10.53623/jdmc.v5i1.641

The Relationship Between Disaster Communication Through @bpbddkijakarta Instagram Account on Gen Z's Preparedness Attitudes in Facing Potential Floods in DKI Jakarta

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SUBMITTED: 22 March 2025; REVISED: 12 April 2025; ACCEPTED: 14 April 2025

ABSTRACT: Floods are a common disaster in Jakarta due to its lowland topography and the presence of 13 major rivers, which are further exacerbated by land subsidence and climate change. Effective disaster communication is essential to enhance public preparedness and mitigate flood impacts. This study examines the relationship between disaster communication through the official Instagram account of BPBD DKI Jakarta (@bpbddkijakarta) and the preparedness attitudes of Gen Z in facing potential floods in Jakarta. The study employed a quantitative approach with a survey method, involving 99 respondents aged 18–25 years who are active Instagram users and have viewed the @bpbddkijakarta reel posted on January 26, 2025. Data were collected using a structured questionnaire with 38 items measuring disaster communication and 21 items measuring preparedness attitudes, analyzed using Pearson's Product-Moment correlation test. The results show a significant positive relationship between disaster communication and preparedness attitudes ($r = 0.769$, $p < 0.01$), with disaster communication explaining 59% of the variance in preparedness attitudes. The findings suggest that improving content quality and fostering two-way interaction on social media could further strengthen disaster preparedness among young people in Jakarta.

KEYWORDS: Disaster communication; preparedness; social media; gen z; flood

1. Introduction

Indonesia, as a country with a tropical climate, is located at the meeting point of the Pacific Ring of Fire and the Alpide Belt, making it highly prone to various forms of natural disasters. This natural disaster is generally caused by two types of factors, namely geological and hydrometeorological factors. In this regard, the National Disaster Management Agency (BNPB) has stated that the number of disaster events due to geological factors is relatively smaller than the number of disaster events caused by hydrometeorological factors if you look at data from 2015 to 2021 [1]. Floods are one of the hydrometeorological disasters that are vulnerable to occur in most regions of Indonesia, including DKI Jakarta as the capital of the country.

The significant frequency of flooding events is caused by Jakarta's geographical location which is in the lowlands and is traversed by 13 large rivers, making it very vulnerable to flooding. In addition, the phenomenon of land subsidence due to massive development activities and climate change that occurred also contributed to this disaster event. This is supported by the acquisition of data from the Jakarta BPBD which states that in 2024 there will be 132 flood events [2]. Not to mention, in early 2025 the krmbali flood occurred, making as many as 20 RTs flooded in the West Jakarta area and 15 RTs in North Jakarta still submerged in floods with a height of 40 to 80 cm [3]. The flood has caused property loss, damaged facilities, and disrupted community activities around the DKI Jakarta area [4].

Seeing such a situation, it is necessary to have a strategy to deal with disasters appropriately and in an integrated manner through a social approach with local communities who are vulnerable to disasters. The strategy can be carried out through a communication process between several parties. This is because communication has been considered a basic activity that everyone does to stay connected [5]. Not only that, communication has also become an important activity in all aspects of life, both individually and in groups. Communication is used as the most effective method that can be used to achieve success in disaster management efforts, starting from the mitigation stage, preparedness, emergency response to recovery [6].

As in the context of this study, communication has a function to manage community preparedness in dealing with the possibility of potential disasters. Communication can help reduce the impact of material losses as well as casualties [7]. This explanation then refers to the term disaster communication which is currently in the spotlight of communication practitioners in dealing with disasters. The disaster communication study aims to encourage the public to understand the situation as well as take protective measures [8]. Disaster communication should include the rapid, accurate, and clear dissemination of information to the public to minimize risk and speed up the disaster handling process. This is in line with the important role of disaster communication in an effort to provide understanding and knowledge about the basis of disasters so that people become more aware of potential disaster risks that may occur in the future [9]. In order to prepare the community, disaster communication is considered ideal not to be carried out when a potential disaster occurs, but starts from the pre-disaster situation.

Delivering messages related to disasters certainly requires good collaboration between the government, the media, and the community so that the benefits can be felt. The Jakarta BPBD as an official institution responsible for compiling, determining, and implementing disaster management in the regions has carried out a disaster communication process, especially flood disasters. Thus, it can be said that the Jakarta BPBD has a strategic role in conveying disaster information to the public. This refers to the Jakarta Governor's Regulation Number 13 of 2021 concerning the Flood Disaster Management Contingency Plan in the DKI Jakarta Regional Province which states that the Jakarta BPBD has three phases in dealing with floods, one of which is before the flood by socializing risk reduction and increasing public understanding of flood management [10]. In carrying out this socialization, this institution implements the use of social media to disseminate information related to disasters in a timely manner and easily accessible to the wider community. This is in line with the characteristics of social media as a new channel characterized by the absence of geographical boundaries and is interactive so that the response will be faster when compared to print media [11]. Social media

is considered very important during disasters with its power and benefits through the provision of information packaged in the form of content so that it can meet the information of the affected communities [12]. The use of this new form of media is one of the alternative forms of communication in times of crisis such as disasters.

Instagram is a social media platform that is actively used by the Jakarta BPBD to convey disaster messages. Instagram ranks second after WhatsApp as the most popular social media platform in Indonesia. This is considering that the number of Instagram users in Indonesia as of February 2024 reached 88,861,000 users, of which 54.8% are women and the remaining 42.5% are men [13]. The official @bpbddkijakarta account on Instagram, has 88.7 thousand followers with 4,671 posts. Through these posts, BPBD DKI Jakarta provides the latest information on weather conditions, water levels, flood-prone points, and preparedness appeals to the community. Information conveyed through social media, including Instagram, has great potential in increasing situational awareness for both the public and emergency response managers related to disasters [14]. Therefore, this study leverages the use of risk and crisis management communication theory that emphasizes the importance of speed and accuracy in disaster communication to increase effectiveness in disaster risk reduction.

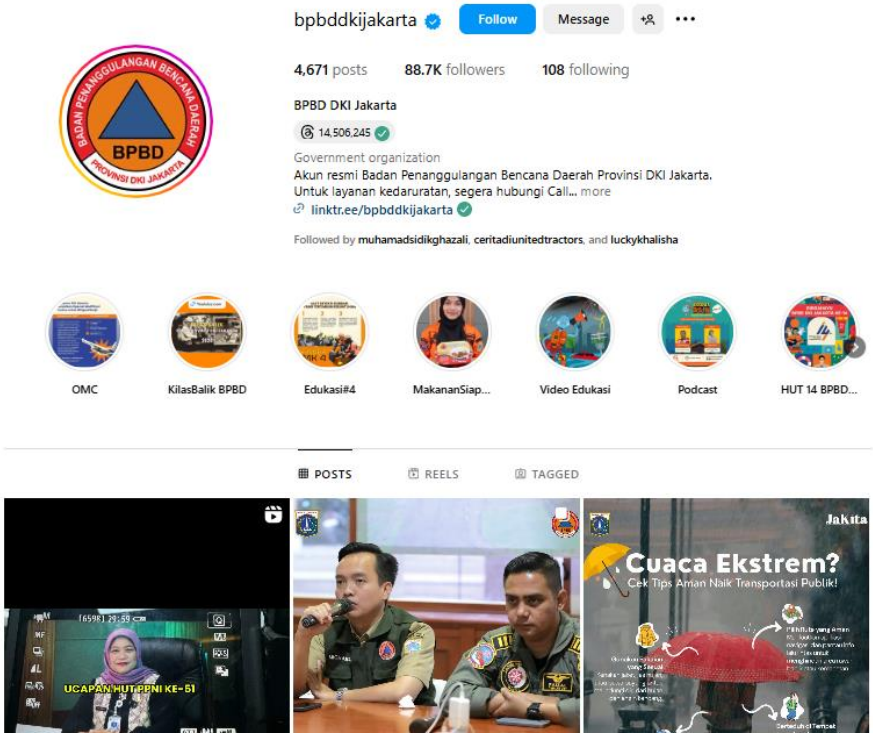

Figure 1. @bpbddkijakarta's instagram profile.

Generation Z is a person born between 1995 and 2010. This generation is considered to be the most technologically advanced group and is very active on social media and has a tendency to seek information through digital platforms [15]. This characteristic makes Generation Z the main target in disaster communication strategies through social media. Research shows that Generation Z is more responsive to information conveyed in visual and concise formats, such as those commonly conveyed through Instagram. Therefore, disaster communication that is tailored to Generation Z's information consumption style is an important factor in increasing their preparedness in dealing with flood disasters.

Looking at such a background explanation, this study is important to understand the extent to which disaster communication through Instagram accounts @bpbddkijakarta related to the alert attitude of Generation Z in dealing with potential floods in DKI Jakarta. In detail, several other things that will be answered in this study include, (1) how disaster communication on Instagram accounts @bpbddkijakarta in Gen Z and (2) how Gen Z's alert attitude in dealing with potential floods in DKI Jakarta. By understanding disaster communication, alertness and the possibility of a relationship between the two, it is hoped that a more effective communication strategy can be developed to increase public awareness and preparedness in dealing with disasters. The variables of disaster communication and attitude variables in this study are based on the dimensions as well as indicators listed in Table 1.

Table 1. Operationalization of research concepts.

Concept	Variable	Dimension	Indicator	Scale
Comminication Crisis	Disaster Communication (X)	Consumer focus	a. Prioritizing information needs b. Prioritizing the importance of information c. Communicators are responsive d. Communicator are informative e. Communicators manage expectations	Interval
		Leadership Commitment	a. Emergency operations leaders share information internally b. Emergency operations leaders disseminate information externally c. Leaders openly support open communication channels to the public	
		Inclusion of communications in planning and operations	a. Information is delivered in a timely manner b. Information is accurate	
		Situational awareness	a. Information collection b. Information analysis c. Dissemination of information from the disaster site	
		Media partnership	a. Partnering with local media	
Comminication Crisis	Attitude (Y)	Cognitive	a. Belief b. Thought c. Attributes associated with the object of attitude	Interval
		Affective	a. Feelings b. Emotion	
		Behavioural	a. Behavior that a person has or will do b. A person's beliefs are enough to shape an attitude	

The existence of this research is also supported by several previous literature sources with similar topics so that it is useful to be used as reference material. Previous research was conducted by Lidzikri, Hendiyan, Irawana and Defhany in 2023 entitled "Communication Strategy of the Padang City Regional Disaster Management Agency in Socializing Flood Disaster Preparedness". This research was conducted to find out how BPBD's communication strategy is in conducting socialization related to disaster management in the city of Padang. The findings of the study show that socialization activities are carried out by the Padang City BPBD using four main communication strategies, namely collaborative communication, informative communication, interpersonal communication, and inclusive communication. The communication strategy is carried out through several steps that have been adjusted, such as

collaborative communication by holding morning coffee with related agencies or inclusive communication with special attention to the age group of children, the elderly to the disabled group [16].

The next previous research on a similar topic was conducted in 2023 with the title "The Effect of Disaster Mitigation Messages on Community Behavior in Dealing with Natural Disasters in Disaster-Prone Areas of Gowa Regency". The goal is to see the possible influence that disaster mitigation messages have on people's behavior. The sample used in the study amounted to 105 heads of families (KK). The results showed that disaster mitigation messages only affected people's behavior by 1.4%. The existence of these findings suggests the need for a more efficient and targeted communication approach in order to increase public awareness of disaster prevention measures [17].

Next, there is also the latest research on a similar topic that will only be conducted in 2024 by Ismail and Muh. Resa Yudianto entitled "Disaster Communication in Flood Handling Through Social Media by Diskominfo and BPBD Makassar City". This study seeks to explore the role, benefits, and optimization strategies of the use of social media as a communication channel for flood disasters in the city of Makassar. Through this study, it was found that there are significant benefits provided by disaster communication through social media, such as increased speed, community involvement, and better monitoring of the situation during disasters. The dominant social media used in Makassar City include Facebook and Instagram. This study assesses the need for a wise approach so that social media can be an effective channel in improving preparedness as well as community response when facing floods in Makassar City [18].

2. Materials and Methods

2.1. Research paradigm.

The researchers used the positivism paradigm as a basic framework in conducting this research. Positivism refers to an approach with the belief that scientific truth can be positively proven through empirical observation as well as logical analysis of the object of observation [19]. In addition, this paradigm assumes that social knowledge can be developed through systematic studies based on empirical facts of real phenomena in people's lives [20]. The positivist paradigm is used in the study to measure the objective relationship between disaster communication variables and alertness in Gen Z with an emphasis on data quantification, hypothesis testing, and empirical measurement of intervariable relationships.

Not only that, the existence of social media as a communication channel allows research to be carried out systematically and measurably so as to support a positivist approach in explaining digital social phenomena based on the acquisition of statistical data. In other words, the phenomenon that occurs in society is an objective fact so that it can be observed carefully. In the context of this study, the researcher will see the truth about disaster communication through Instagram @bpbddkijakarta which may be related to the attitude of preparedness in dealing with potential floods in DKI Jakarta.

2.2. Research methods.

This research was studied through a quantitative approach with a descriptive type. The quantitative approach refers to a framework whose measurement is carried out statistically due to the existence of numerical or numerical data [21]. Through these statistical properties, quantitative approaches not only describe phenomena numerically, but tend to help researchers to determine the relationship between two or more variables. In addition, the research method used in this study is a survey. Surveys are useful for providing answers to statements about research variables [22]. In the context of this study, the survey aims to find answers related to disaster communication variables and attitude variables through the type of closed-ended questions so that uniform answers will be obtained from the respondents. In line with this method, data collection was carried out using an instrument in the form of a questionnaire distributed online.

In order to answer the research questions, the questionnaire consisted of 38 statements about the disaster communication variable and 21 statements related to the attitude variable using an interval scale in the range of 1 = strongly disagree to 4 = strongly agree. The questionnaire instruments in this study were developed based on relevant literature and theory studies. The items to measure the variables of disaster communication refer to the five main dimensions developed by Haddow & Haddow, namely consumer focus, leadership commitment, inclusion of communication in planning and operations, situational awareness, and media partnership [12]. Meanwhile, items for the alert attitude variable were developed based on the theory of attitude components by Hewstone, which includes cognitive, affective, and behavioral dimensions [23]. Some items were rearranged and adjusted to the context of Instagram social media and the characteristics of Gen Z respondents by considering the validity of the content through a consultation process with other lecturers.

The population set in the study was the audience of reels content on January 26, 2025 on Instagram @bpbddkijakarta, which was 7,981. This is considering that the population can be in the form of people, schools, countries, companies, and so on [24]. From this population, the researcher then conducted a sample withdrawal through a non-probability sampling technique with a purposive sampling type. This type of purposive sampling refers to the selection based on unit selection of observations with consideration of certain criteria that are most representative [25]. However, this technique has limitations in the form of potential selection biases that can affect the ability to generalize research results. In order to minimize bias, the researcher set strict criteria and are relevant to the research objectives and ensure the diversity of respondents from various administrative regions in DKI Jakarta. The criteria for this study sample include men or women aged 18-25 years who live in the DKI Jakarta area, active Instagram users who know @bpbddkijakarta account, and have watched reels content @bpbddkijakarta January 26, 2025. The number of samples was then measured using the Slovin formula, which is as follows:

$$n = \frac{N}{(1 + (N.e^2)}$$

Referring to the Slovin formula, n represents the sample followed by N as the population and e as the margin of error value set at 10%. The existence of a margin of error value of 10% was chosen based on considerations of the research context which is exploratory and limited-

scale. In addition, the research process and pay attention to the limitations of time and resources so that the amount of value will make it easier for researchers to obtain data from a sufficient number of samples.

$$n = \frac{7981}{(1 + (7981.0.1^2)} = \frac{7981}{(1 + (7981(0.01))}$$

$$n = \frac{7981}{80.81} = 98.7 \sim 99$$

Based on the sample measurement using the Slovin formula, a total of 98.7 participants were rounded up to 99 Gen Z respondents for this study. The existence of this number of samples will later be useful for measuring disaster communication as an independent variable and attitude as a dependent variable. In addition, the instrument is tested through validity and reliability tests so that it can see whether or not the statement items used to measure the two variables are appropriate. The following is an overview of this research model:

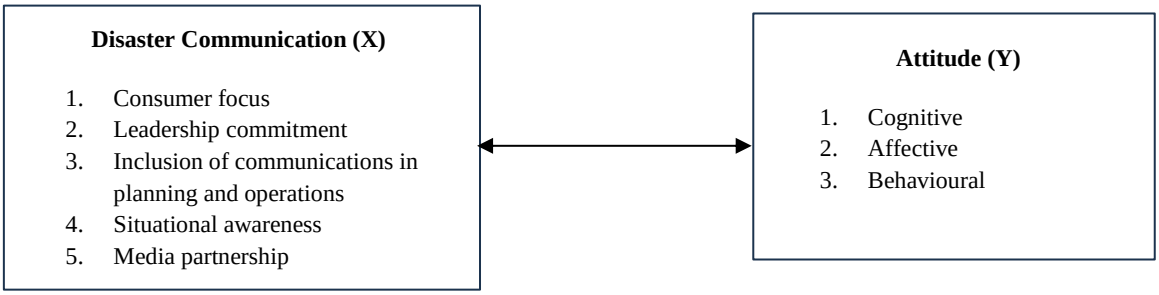

Figure 2. Research model.

2.3. Data analysis methods.

Data analysis in quantitative research refers to numerical representations that aim to provide a description as well as an explanation of a phenomenon as a reflection through the researcher's observation. The data obtained for this research will later be analyzed univariate and bivariate. Univariate analysis is used as a form of descriptive statistics to provide an overview of data from respondents through mean and frequency results. In particular, descriptive statistics will map the demographic characteristics (age and domicile) of the respondents in this study. In addition, bivariate analysis is a form of analysis of two variables that are carried out simultaneously to determine the empirical relationship between the two [19]. Given that this study seeks to see the existence of a relationship between disaster communication and attitudes, the bivariate analysis applied in the study is the Pearson Product Moment correlation test. Through this Pearson correlation test, researchers will find the direction, strength, and significance of two or more variables using an interval or ratio scale [26]. However, before entering the test stage, the data needs to meet several basic assumptions, namely paying attention to outlier data, normality, linearity, and homogeneity.

Outlier checks need to be performed to find out that values are much lower or higher than other values in the dataset so that they do not have a dramatic effect on correlation coefficients, especially studies with small samples [27]. As for this study, no extreme or unusual responses were found that could be categorized as outliers from the total score. Furthermore, the normally distributed data must also be fulfilled by referring to the

characteristic shape of the normal curve in the shape of a bell. Violation of normality tends to reduce errors in Pearson r values [28]. The measurement of data normality in the study utilizes the Kolgomorov–Smirnov test. After going through the test, it is also necessary to know whether the data showing the relationship between the two research variables is linear by utilizing Scatterplot. The determination of whether or not a relationship is linear can be seen from the distribution of points from the bottom left to the top right of the plot diagram. Finally, homocedasticity seeks to show the similarity of score variability for variable X on all values of variable Y [27]. This can be seen from the visualization of the initial scatterplots does not show a residual pattern that spreads systematically or forms curves, so it can be assumed that homocedasticity is not significantly violated. However, the researchers recognize these limitations as areas that need to be strengthened in further research.

3. Results and Discussion

3.1. Validity test results.

In quantitative research, the instrument used must have a compatibility between the indicators and the variables to be studied and must be validly proven before use. This refers to validity, which is the assessment of the extent to which a size can correctly reflect the concept to be measured [29]. In other words, validity seeks to measure data measurement instruments precisely and accurately. The validity measurement of this research instrument utilizes the Kaiser-Meyer-Olkin (KMO) test and Barlett's test. The determination of whether or not an instrument is valid is based on the requirement that the results of the SME test must be in a high value range, which is between 0.5 to 1.0 [30]. However, if the SME value shown is less than 0.5, then it can be said that the instrument used is not suitable and will be questioned. The following is Table 2 which shows the results of the validity test related to disaster communication as an independent variable.

Table 2. Validity result of Disaster Communication (X) and Attitude (Y).

KMO and Bartlett's Test		X	Y
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.612	.726
Bartlett's Test of Sphericity	Approx. Chi-Square	1363.353	1363.353
	df	703	703
	Sig.	.000	.000

Referring to the data in Table 2 above, statements related to the disaster communication variables used in the research instrument can be said to be valid. This is evidenced by the acquisition of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value of the disaster communication variable (X) of 0.612 and attitude (Y) of 0.726, both of which exceed the value of 0.5. In addition, Bartlett's Test of Sphericity value shows a significance of 0.000. This means that the instrument to measure these two variables is appropriate and significant because it meets the requirements in the form of $p < 0.05$ [30]. The results can be said to have succeeded in measuring the five dimensions of disaster communication, which include consumer focus, leadership commitment, inclusion of communications in planning and operations, situational awareness, and media partnership. Disaster communication is the core that becomes the main link between authorities, responders and affected communities as well as playing an important role in conveying information, coordinating actions, and providing the necessary certainty [31].

Not only that, the existence of these results can be interpreted that the statements in the research instrument are appropriate in measuring attitude variables with three dimensions in them, namely cognitive, affective, and behavioral. Attitude refers to the evaluation that a person gives to another person, object or even idea [32].

3.2 Reliability test results.

Another important measurement used to see the suitability of this research instrument is reliability. Reliability measures the extent to which the scale shows consistency of results if measurements are repeated [30]. In other words, reliability refers to the ability of a measuring instrument to keep giving the same results over time, even under different conditions. Reliability assessments are determined by the proportion of systematic variation on a scale. This measurement is considered an important requirement to show the quality of an instrument that will produce the right information so as to reduce the occurrence of errors in measurement [33].

The reliability of this study was measured through Cronbach's alpha method. Cronbach's alpha is a reliability coefficient that is useful for measuring how well items in an instrument correlate with each other [26]. The basic requirement of this method is that if Cronbach's alpha value gets closer to 1, then the higher the reliability. The reliability results of the disaster communication and attitude variables can then be seen in Table 4 below.

Table 4. Reliability test result of two variable.

Variable	Cronbach's Alpha	N of Items
X	.836	38
Y	.819	21

Based on the data listed in Table 4 above regarding the results of the reliability test, it can be said that both variables are reliable. This is considering that in the 7th edition of the book Research Methods for Business by Uma Sekaran and Bougie, it is stated that the Cronbach alpha value in the range of 0.70 is included in the termable category, the value in the as 0.80 is included in the good category, and the 0.60 value is included in the bad category. In other words, disaster communication and attitudes have reliability in the good category because the Cronbach alpha values shown are 0.836 and 0.819 of each of these variables. This means that research instruments will consistently provide similar results if in different times and circumstances than before.

3.3. Characteristics of respondents.

The use of questionnaire instruments by researchers is useful to find out the relationship between disaster communication through @bpbddkijakarta Instagram account and the alert attitude of generation Z in dealing with potential floods in DKI Jakarta. The questionnaire utilizes Google Forms which was distributed to 99 samples as research respondents. Through 60 statements related to disaster communication and attitudes on the questionnaire, the distribution of respondents' age data was obtained as seen in Table 5 below.

Table 5. Age Data of Research Respondents

Age	Frequency	Percentage
18 years old	1	1%
19 years old	6	6.1%

20 years old	9	9.1%
21 years old	19	19.2%
22 years old	24	24.2%
23 years old	12	12.1%
24 years old	15	15.2%
25 years old	13	13.1%

Referring to the data obtained in Table 5, it can be seen that most of the respondents who filled out the questionnaire were 22 years old with a frequency of 24 people (24.2%). Furthermore, the second rank was occupied by 19 respondents aged 21 (19.2%). In addition, there were as many as 15 people (15.2%) of respondents with the age of 24 who contributed to filling in the answers to each statement on the questionnaire. As for the respondents aged 18 to 20 years, they were ranked at the bottom with the least number. In detail, there were only 1 person (1%) respondents aged 18 years, 6 people (6.1%) aged 19 years, and 9 people (9.1%) aged 20 years in this study. Not only age, there is also data on the place of residence or domicile of the respondents presented in Table 6 below.

Table 6. Domicile Data of Research Respondents

Domicile	Frequency	Percentage
West Jakarta	20	20.2%
Central Jakarta	10	10.1%
South Jakarta	30	30.3%
East Jakarta	28	28.3%
North Jakarta	11	11.1%

Based on Table 5 above, it is shown that the respondents are predominantly domiciled in the South Jakarta area, as evidenced by as many as 30 people (30.3%). This number was then followed by 28 people (28.3%) respondents who were domiciled in the East Jakarta area and 20 people (20.2%) respondents who were domiciled in the West Jakarta area. There were only 11 respondents (11.1%) domiciled in Central Jakarta followed by the remaining 10 (10.1%) respondents domiciled in Central Jakarta.

3.4. Descriptive analysis of disaster communication (X)

Through univariate analysis, the researcher obtained various average values from statements related to disaster communication variables. The statement is adjusted to five dimensions in it, namely consumer focus, leadership commitment, inclusion of communications in planning and operations, situational awareness, and media partnership. The average score of each dimension of disaster communication is depicted in the form of a bar graph shown in Figure 3.

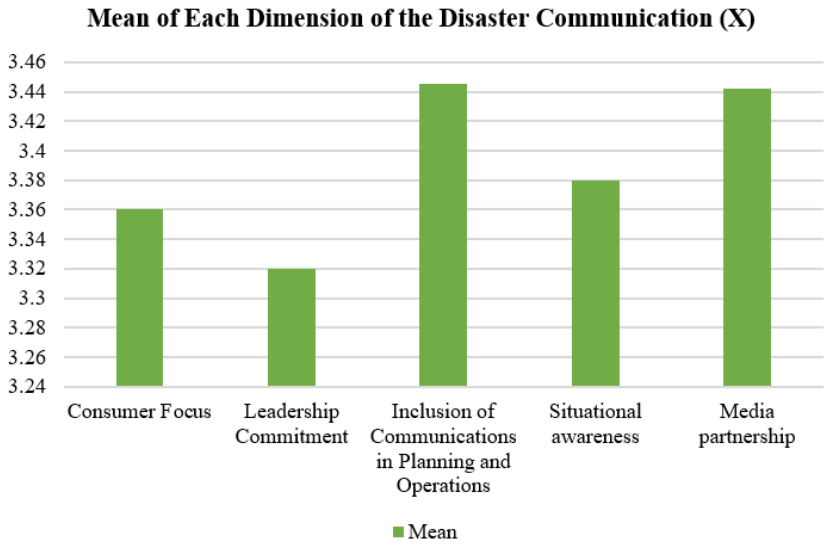

Figure 3. Mean of each dimension of the disaster communication (X).

The results of the research in the graph in Figure 3 show that the inclusion dimension of communications in planning and operations and media partnership has the highest average value among the other four dimensions, which is 3.44. Inclusion of communications in planning and operations refers to the ability of an emergency operations organization to disseminate critical information in a timely manner to staff, partners, the public and social media [12]. On the other hand, media partnership refers to the cooperation carried out by an agency with local media. The existence of this achievement indicates that most of the 99 respondents agreed that the DKI Jakarta BPBD succeeded in communicating information about tips on dealing with floods before they occur in a timely manner through the Instagram media platform. In addition, the Jakarta BPBD as the official regional institution has made plans to convey accurate information so that the public can be more alert when the disaster occurs.

The indicator with the highest score in these dimensions is an accurate information indicator. This is proven by the acquisition of an average score of 3.40. This indicates that the majority of respondents positively agree that the DKI Jakarta BPBD has expertise in disseminating information about tips for dealing with potential floods through @bpbddkijakarta's Instagram account. The findings are also in line with one of the stages of risk and crisis communication management theory presented by Matthew Seeger, namely response. The response stage refers to the action steps that various agencies or organizations will take to a particular crisis [34]. In the context of research on disaster communication conducted through Instagram @bpbddkijakarta, information related to things that need to be done in the midst of potential flooding due to heavy rain is conveyed quickly, accurately, and action-oriented so as to help the community deal with disasters.

These findings have implications that disaster communication carried out by the DKI Jakarta BPBD through the @bpbddkijakarta Instagram account plays a significant role in improving community preparedness, especially Gen Z in facing potential floods. The suitability of the response stage in risk and crisis communication management theory emphasizes the importance of fast and action-based information delivery when disaster threats occur. This indicates that social media can be a strategic tool in disaster communication, especially in reaching digitally active community groups. As in previous research conducted by Rofiyanti

et al., it was found that social media plays an important role in providing information about early intervention to disaster coordination in DKI Jakarta [35].

3.5 Descriptive analysis of attitude (Y)

Through univariate analysis as a descriptive statistical analysis method, the researcher also obtained a diversity of average values related to attitude variables. The statement has been adjusted to the three components that form the attitude itself, namely cognitive, affective, and behavioral. The average score is depicted in the form of a bar graph shown in Figure 4 below.

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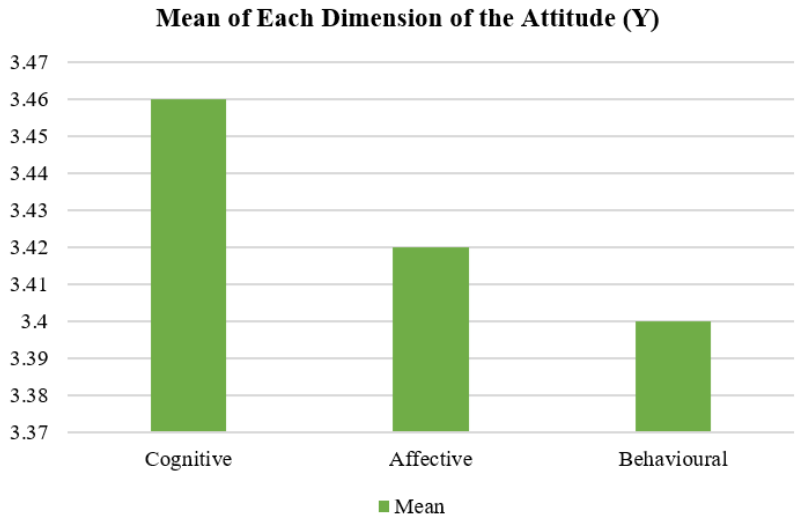

Figure 4. Mean of each dimension of the attitude (Y)

Based on the graph of the average of each dimension on attitude as a dependent variable seen in Figure 4, cognitive obtained the highest average value compared to the other two dimensions. This is proven by the acquisition of a number of 3.46. Cognition refers to beliefs, thoughts as well as attributes that a person associates with the object of attitude [34]. The existence of this cognitive component allows one to classify the advantages and disadvantages of an object before determining a response to the object. With such results, it basically shows that most of the respondents have a good enough awareness to periodically check weather changes as a form of preparedness for potential floods resulting in flooding. In addition, the information provided through the Instagram account @bpbddkijakarta led to an understanding of the importance of securing electrical installations in respondents' homes before facing floods.

Furthermore, confidence is an indicator in the cognitive dimension that obtains the highest score. The confidence showed an average value of 3.51 so it can be interpreted that respondents positively believed in the tips conveyed by the DKI Jakarta BPBD in facing potential floods. Respondents also became convinced to follow the steps that needed to be taken, such as avoiding flood-prone areas. These findings are in fact in accordance with the prevention stage in the theory of risk and crisis communication management. Through this theory, Matthew Seeger said that prevention refers to actions that help avoid crises in the first place so that they can reduce risk [34]. Regarding the alert attitude of Generation Z, disaster communication delivered by the Jakarta BPBD has provided education to the public based on field facts so as to help individuals better prepare themselves from flood risks.

3.6 Normality test result.

The normal distribution of data is one of the important basic assumptions about population characteristics that need to be met from several parametric analyses in quantitative research. This leads to normality measurement to see how the data is distributed normally. The normal distribution of data is shown by the presence of a symmetrical bell shape with all its central tendencies being identical [30]. In other words, the normally dispersed data will be concentrated around the center of the graph with multiple values on either side.

In the context of this study, normality needs to be done so that the r value in the Pearson correlation is accurate. The normality measurement technique used in the study was through the Kolmogrov-Smirnov test. This type of test assumes that the distributed data is continuous [36]. The data is said to be normally distributed when the Kolmogrov-Smirnov test results table yields a Sig. value of more than 0.05 [27]. However, a violation of the assumption of normality will occur if the Sig. value is shown to be less than 0.05.

Tabel 7. Kolmogrov-Smirnov normality test results.

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		99
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.84632672
Most Extreme Differences	Absolute	.061
	Positive	.061
	Negative	-.048
Test Statistic		.061
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the results of the Kolmogrov-Smirnov test in Table 7 above, it can be seen that the research data has a normal distribution. This is proven by the value of Asymp. Sig. (2-tailed) which indicates a value of 0.200. This means that the significance value has met the requirements greater than 0.05. In other words, the value of the residual variable is normally distributed.

3.7. Linearity test result.

Linearity is the next basic assumption test that is important to do before data processing enters the Pearson Product Moment correlation test. The linearity test is useful to see the possibility of a linear and significant relationship between independent variables and dependent variables. This linear property is shown through the curve regarding the relationship that forms a straight line [20]. This study utilizes scatterplots as the easiest way to see linearity in the form of visualization. Scatterplot refers to a plot of values of two variables with the vertical axis indicating the dependent variable and the horizontal axis indicating the independent variable [30]. This analysis method allows researchers to see patterns of increase or decrease in other

variables due to a variable. The following is Figure 5 which shows the results of the scatter chart from the research data.

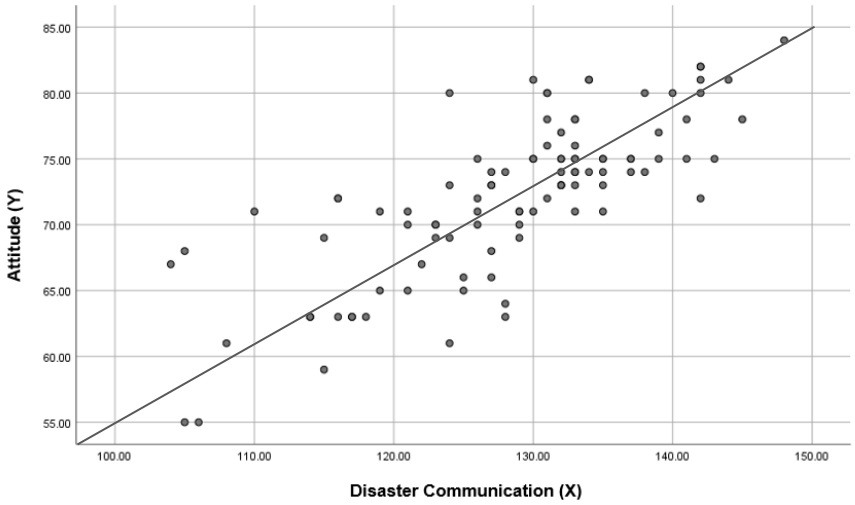

Figure 5. Linearity Test Results with Scatterplots

Referring to the scatter diagram shown in Figure 5, there are randomly scattered dots starting from the bottom right moving towards the top left. The distribution of these points has also indirectly formed an extension of the line that intersects the x-axis and the y-axis of point 0. The relationship will be said to be positive linear between the two variables when the curve of the scatter diagram increases and is inverse when the scatter diagram decreases to the lower right [20]. With demikiam, it can be said that the scatter diagram succeeds in showing the form of a positive linear relationship between disaster communication and attitude.

3.8 Pearson product moment correlation test results.

After fulfilling the two basic assumption tests, now the acquisition of questionnaire data can be continued to the correlation analysis stage to answer the research hypothesis. Correlation analysis seeks to provide a precise baseline estimate of the level of relationship between research concepts. The Pearson Product Moment correlation test was used to examine the relationship between disaster communication and attitudes that have an interval scale so that it can focus on the r coefficient [29]. Correlations are generally in the range of -1.0 to +1.0, where a perfect positive relationship between the two variables would be indicated by a value of +1.0 or a perfect negative relationship with a value of -1.0 [26]. In addition, there is a provision for the maximum level of significance of two variables in the social sciences of p = 0.05 This significance value will later be useful to see the percentage of possible incorrectness of the correlation test results. The results of this study correlation test can be seen in Table 8.

Tabel 8. Pearson Product Moment correlation test results.

Correlations

		Disaster communication (X)	Attitude (Y)
Disaster communication (X)	Pearson Correlation	1	.769**
	Sig. (2-tailed)		.000
	N	99	99
Attitude (Y)	Pearson Correlation	.769**	1

	Sig. (2-tailed)	.000	
	N	99	99

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the data results from the Product Moment correlation test presented in Table 7 above, it can be seen that disaster communication (X) has a significantly positive relationship with alertness (Y). This is proven by the acquisition of Pearson's r value of 0.769 without any negative sign in front of it. This positive relationship indicates that the preparedness attitude variable also increases when the disaster communication variable increases. In addition, such an acquisition of an r value is included in the large *r* category because it is in the range of 0.50 to 1.00 [27]. The significance obtained shows a value of 0.000 which indicates that the relationship is significant at a 99% confidence level. The strength of the relationship between the two variables is calculated based on the value of the coefficient of determination obtained by squared Pearson's r and then multiplied by 100. As a result, the percentage of relationship between disaster communication and the attitude of preparedness was obtained.

4. Conclusions

The results of the study indicate a positive and significant relationship between disaster communication through the @bpbddkijakarta Instagram account and the preparedness attitude of Gen Z in dealing with potential floods in DKI Jakarta. The Pearson Product Moment correlation test yielded a value of $r = 0.769$ with a significance level of $p < 0.01$ which means that the relationship is strong with an increase in disaster communication, so the alert attitude will also increase. In addition, it was also found that the amount of variability in the alert attitude can be explained by effective disaster communication through social media based on the acquisition of a determination coefficient value of 59%.The achievement of these results is driven by the dimension of inclusion of communications in planning and operations and media partnerships which have the highest contribution in improving community preparedness. This shows that punctuality in the delivery of information and cooperation with local media play a role in forming a standby attitude. On the other hand, the cognitive dimension of attitudes shows the highest value which indicates that Gen Z trusts the information conveyed by the DKI Jakarta BPBD plays a role in increasing their preparedness for flood disasters. This research contributes to the development of more effective and adaptive disaster communication strategies, especially in reaching Gen Z through social media. However, the study has limitations on a limited number of samples and focuses on a single social media platform. Further research is expected to expand the scope of social media and involve a more diverse sample to get a more comprehensive picture. Thus, the results of this study confirm the importance of the role of disaster communication through social media in improving community preparedness, and encourage the Jakarta BPBD to continue to optimize a communication strategy that is responsive and based on people’s information needs.

Acknowledgments

The authors express their sincere gratitude to Universitas Negeri Jakarta for the invaluable support provided throughout this research. The facilities, academic resources, and intellectual environment offered by the institution have significantly contributed to the successful completion of this study.

Author Contribution

All authors contributed substantially to the completion of this study. Each author played a significant role in the research process, and all have reviewed and approved the final version of the manuscript. Oot Hotimah was responsible for the conception and design of the study, coordinated the research process, supervised data analysis, and contributed to the critical revision of the manuscript. Natasya Ananda Rheta Sitanggang collected and organized the data, conducted the data analysis, drafted the manuscript, performed the literature review, and contributed to the critical revision of the manuscript.

Competing Interest

No competing interests are declared by all authors regarding this study.

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