The effect of the social aspect, media dependency, and uncertainty against the formation of Trust toward information in social network sites: A case study of COVID-19 information in Indonesia

Yonathan Dri Handarkho1 | Dhyah Ayu Retno Widyastuti2 | Yulius Harjoseputro1

1Department of Informatics, Universitas Atma Jaya Yogyakarta, Yogyakarta, Indonesia
2Department of Communication, Faculty of Social and Political Sciences, Universitas Atma Jaya Yogyakarta, Yogyakarta, Indonesia

Abstract
This study developed a comprehensive theoretical model to analyze individual Trust's formation concerning information related to COVID-19 circulated in Social Network Sites (SNS) in Indonesia. The developed model used Social Impact, Uncertainty, and SNS Dependency theories. This study narrows the concept of Trust, which refers to how much individuals judge and consider the COVID-19 information received in SNS as reliable and trustworthy. Data collected from 390 Indonesian respondents were used to analyze the proposed model via SEM analysis techniques. The findings indicated that SNS dependency had the most substantial immediate impact on Trust. Meanwhile, the result from a social impact perspective explicitly showed the various forms through which other people influence individuals' Trust in COVID-19 information circulated in SNS. Uncertainty was also found to indirectly affect and moderate the direct impact of SNS dependency on Trust. However, this comprehensive observation has not been discussed thoroughly from a social perspective by prior studies and can contribute to future research. The indirect and moderating effects were additional contributions of this study that had not been profoundly utilized by previous related research.

KEYWORDS
COVID-19, Indonesia, information, SEM, SNS, trust

1 | INTRODUCTION

Social Network Sites (SNS) are the fastest and most convenient online platforms used to seek and share information on specific issues. They are also primarily used to confirm rumors and facts among other users during uncertain situations (Lee & Choi, 2018). However, it has some adverse effects as not all messages circulating on SNS are guaranteed to be true. A consequence of using these platforms is that it allows people to receive unverified information, which tends to be misleading and damaging (Kim, 2019). Therefore, Indonesian society is highly concerned with these issues, particularly during chaotic situations, such as the COVID-19 pandemic condition. COVID-19 is the name given to the disease caused by a coronavirus that emerged toward the end of 2019. This disease was termed a pandemic due to the quick spread across the world through human droplets and contact, leading to thousands of deaths within a short period (Destiny Apuke & Omar, 2020). In Indonesia, the COVID-19 phenomenon also led to the spread of news and rumors concerning the virus through SNS. Consequently, people quickly and curiously obtained information through these channels due to the present growth of positive cases by more than 1,000,000.
A study conducted by Nielsen (2020) discovered that 61% of Indonesian respondents kept track of news associated with COVID-19 by checking various sources of information multiple times daily through different social media platforms. However, this inclination was not accompanied by the correctness of the field information, as hoaxes were considered credible because of plausible narratives that strengthened such content's reliability. These narratives made the news acceptable by many readers (Burroughs & Burroughs, 2011), which caused people to consume false information that can easily harm society. Subsequently, many misinformation and rumors spread through SNS have triggered negative actions in society, such as panic buying (Dela Garza, 2020), and even caused persons to under estimate the virus. This response potentially reduces their awareness of this disease's menace and causes them to ignore preventive measures. Meanwhile, misinformed persons tend to share the information without considering the content's reliability (Thestar, 2020), easily ignore logic and sense toward the rumors’ reliability, and even perceive it as accurate. This phenomenon shows that it is essential for individuals to filter any COVID-19 information circulating on SNS because many are unreliable and misleading (Allcott & Gentzkow, 2017).

Concerning the fact mentioned above, exploring how individuals develop Trust in the COVID-19 information circulating on SNS is highlighted to help Indonesian society manage their response toward such news. Therefore, this study examines the antecedent factor that affects individuals' Trust, along with their intentions and decisions to consume and spread information related to COVID-19. Several theories based on social influence, media dependence, and uncertain situations were integrated into this study to provide a comprehensive approach toward these issues. The grounded reason that this study highlights the social influence construct as a primary aspect is because Indonesian people have a character and tendency to conform with the society they belong to (Hofstede-Insights, 2019). This nature has also been reflected in their behavior regarding online platforms, such as SNS. It means that for a multicultural society to be more collectivistic than individualistic, the members are inclined to consider other ideas or beliefs to assure the reliability of received information (Cheung et al., 2020). Therefore, this study proposes that the Trust in the credibility of information disseminated on SNS is not only determined by the quality of the message but also influenced by the source and how the news is delivered to the people.

A report provided by Hootsuite (2020) presented that the dependency of the Indonesian society on SNS is considered high, as shown by five SNS platforms that were included in the top 10 most visited websites by Indonesian users. The report also informed that the average SNS usage time per day is higher than 3 h, indicating that the users’ attachment to the platform is significant. This situation has implications for individuals’ inclination to quickly trust information received from SNS due to their dependence on the platform (Ho et al., 2015). It also follows the current situation, which requires people to stay at home more, causing the use of SNS to fulfill the desire to interact socially and obtain information through the platform to increase. Consequently, to enrich the proposed model, SNS dependency was also postulated as a significant factor that constructs the formation of Trust in the Indonesian context.

Lastly, because the study's context is related to COVID-19 information circulated during this pandemic situation, it was considered essential to involve the current uncertainties that will affect people’s ability to evaluate related information when received on SNS. According to Vedadi and Warkentin (2020), people tend to be influenced by circumstance and environment rather than information credibility when in such situations, as during this pandemic. Therefore, this study will involve uncertain factors as a construct that also influences the formation of Trust.

Due to the complexity of the Trust construct, its definition was limited by adopting and integrating the conceptual description provided by Wang et al. (2020) and Anaya-Sánchez et al. (2020), which refer to the extent to which individuals judge and consider the COVID-19 information received in SNS as reliable and trustworthy. Trust conceptualized as information judgment is constructed based on the credibility and relationship between the sender and the receiver of the message. This Trust is also affected by the individual's dependence on SNS, as well as the circumstance and environment that influence the user's judgment.

In constructing the proposed model, this study employs the Social Impact theory by Latané (1981) to identify the predictor of Trust affected by social interaction developed on the SNS (Gong et al., 2020). Also, the theory of Media Dependency was adopted to complement the predictor and accommodate the influence of individuals’ dependence on SNS. Lastly, this study also considered the uncertainty effect as a factor influencing people's Trust in the COVID-19 information they receive. Gong et al. (2020) accurately reported that uncertainty is a construct that affects trust formation, particularly concerning issues that are challenging to predict. Therefore, theories related to the influence of uncertainty toward trust formation will be employed in this research to strengthen this construct's position in the model.

Many previously related studies employed the user’s ability and the quality of information on SNS to predict how Trust is formed. Meanwhile, other aspects, such as social influence that applies to Indonesian society culture, as it is more collectivist than individualistic, were made secondary. Hence, this study proposes a model that uses social factors as primary antecedents by adopting the Social Impact theory to develop a trust formation model that complies with the country’s society. This research also involves uncertainty and SNS dependency as integral aspects of the model due to the current situation. Consequently, this situation results in people spending more time at home, which causes the frequent use of SNS and uncertainty of life (Destiny Apuke & Omar, 2020). The theoretical model was developed to investigate the direct, indirect, total, and moderating effects of the factors that influence Trust. Meanwhile, the practical and theoretical implications were proposed to address the issue of Trust relating to the COVID-19 information shared on SNS.
2 | REVIEW OF RELATED STUDY AND PROPOSED HYPOTHESIS

Table 1 shows a previous study according to the dissemination of news on SNS and how people responded and reacted toward this information. Earlier studies mentioned utilized personality traits and content quality as the primary aspects, while social impact and SNS dependency were secondary. Several personal aspects, such as the impulse to disseminate information to help others, self-efficacy, and individual judgment, were postulated. These factors were discovered to be antecedents that influence people’s Trust and intention to share news they receive on SNS (Destiny Apuke & Omar, 2020; Khan & Idris, 2019; Wang et al., 2020). Other studies also posited the quality of content, such as credibility and label of information, as the main predictors of Trust formation in SNS (Halpern et al., 2019; Oh & Lee, 2019). Although the social aspect has been used as a primary construct of SNS by Torres et al. (2018) and Shi et al. (2018), it has not been explored deeply. This aspect was employed concurrently with the use of SNS dependency by Lee and Choi (2018) as only a moderating factor. Therefore, this study can enrich and fill this knowledge gap, especially for a country where the people’s cultures generally conform to society. This is also strengthened by the fact that Trust is readily affected by social interaction on SNS (Gong et al., 2020), especially when people are in situations that encourage them to depend on these platforms. Therefore, this research attempts to propose a model to investigate the factors that influence individual trust formation concerning the

| The focus of the study | Basic theory | Exogenous variable | Intervening variable | Reference |
|------------------------|--------------|--------------------|----------------------|-----------|
| Examining the process of the trust-building related to rumors on SNS | Self-efficacy | Trust Action, Trust Belief | Wang et al., 2020 |
| Identifying factors that lead to the sharing of the fake COVID-19 information in social media | Uses and Gratification framework | Altruism, Entertainment, Socialization, Pass time, Information sharing | Destiny Apuke & Omar, 2020 |
| Exploring the antecedent of behavioral intentions for health rumor verification and sharing on social media | Health anxiety, Health literacy, Perceived message importance | | Oh & Lee, 2019 |
| Observing how an individual can receive fake news, believe in it, and share it with others | Social-psychological, political research | News Consumption, online political participation, Trust in media | Credibility in fake news, Exposure to fake news | Halpern et al., 2019 |
| Exploring factors that influence the ability of individuals to identify false information on SNS and the tendency to share without verifying the truth first | Theory of Reasoned Action, information Literacy | Individuals’ background factors, information sharing skills, Information seeking skills, information verification skill, Individuals’ belief in information reliability, Individuals’ attitude | perceived self-efficacy | Khan & Idris, 2019 |
| Exploring the formation of preventive behavioral intentions based on how individuals express and receive risk information | Expression–effects paradigm and Reception–effects paradigms | Expressing Risk Information, Receiving Risk Information | Personal-level Risk Perception, Societal-level Risk Perception | Yoo, 2019 |
| Investigating the determinants of Information dissemination behavior of individuals on SNS | the elaboration likelihood model (ELM) | Topical relevance, Information richness, Source trustworthiness, Source attractiveness, Value homophily, Informational social influence | Social tie strength | Shi et al., 2018 |
| Examining how the credibility of rumors influence individuals’ accuracy-oriented information seeking and how SNS dependency moderates the linkage of two constructs above | Motivated reasoning theory, Media system dependency theory | Rumor Credibility SNS Dependency (As moderating factor) | Lee & Choi, 2018 |
| Understanding verification behaviors toward fake information among SNS users | Epistemology of testimony, Theoretical perspectives on Trust | Social Tie variety, Cognitive Homogeneity | Fake News Awareness, Trust in network, Media Credibility | Torres et al., 2018 |
COVID-19 related news circulating on SNS based on three aspects, namely social impact, SNS dependency, and uncertainty. The combination of these three proposed elements is believed to be missing in prior studies.

2.1 Social impact and Trust in Indonesian society

Social interaction is closely related to the development of Trust in the information received on SNS (Gong et al., 2020). Specifically, the decision to use and share received information is usually affected by others' acceptance, which is also determined by the quality of the platform's social experience (Handarkho, 2020a). This is also in line with the research conducted by Hofstede-Insights (2019) that finds Indonesian people tend to conform with the society they belong to. In detail, Indonesian cultures are more collectivist than individualists, reflecting their tendency to follow what the community believes. In respect to covid-19 information, Nielsen (2020) discovered that 61% of the Indonesian respondents kept track of news associated with COVID-19 by checking various sources of information multiple times daily from different Social Media platforms to conform with the social beliefs, which in line with the statement above related to the tendency of Indonesian society. Therefore, this research employed the Social impact theory to explain the effect of social experiences on individuals' intentions to use the COVID-19 information shared on SNS. This theory believes that tie strength, number, and closeness are criteria used to determine the quality of the information obtained by the recipient (Latané, 1981). In tie strength, the value of information is measured based on the receiver's prior interaction with the sender. This situation tends to occur with individuals that are already familiar to the receiver, such as family, relatives, and friends. The number refers to the strength of influence determined by how many people sent specific information. Conversely, closeness highlights the emotional aspect attached to the influence, and in this study, the relationship between the sender and receiver will strengthen the quality of information from the recipient's perspective. Based on the theory above, this study projected factors based on tie strength, number, and emotional closeness to measure the value of the interactions that affect trust formation. In detail, the individual's approval of the content shared on SNS is determined by the quality of the social impact the information sender has on them.

2.1.1 Tie strength, number, and closeness

Concerning the tie strength aspect, the quality of social interaction is defined according to the frequency and familiarity between the receiver and the sender of information (Shi et al., 2018). Hence, the information's strength tends to be valued when derived from relatives, friends, and familiar persons (Handarkho, 2020a). Shi et al. (2018) reported that information derived from a familiar source is perceived as trustworthy. Also, the researcher stated that for people to trust specific content, it needs to be delivered by a source that is already familiar through previous social experience (Cao et al., 2018). Therefore, this study believes that information relating to COVID-19 shared by individuals familiar to users encourages greater Trust (Chaouali et al., 2016). Consequently, the hypothesis was proposed:

**H1.** Social tie strength has a positive direct effect on an individual's Trust in the COVID-19 information shared on SNS.

Meanwhile, Lee and Hong (2016) stated that individuals consider certain information reliable when shared or accepted by many people. This tendency is referred to as perceived herd behavior (Sun, 2009) and denotes people's tendency to follow other referents' actions because of how many they are (Handarkho, 2020a). According to research, this factor refers to certain behaviors exhibited by a significant number of people that leads to psychological pressure toward individual belief (Handarkho, 2020a). Therefore, this study assumes people tend to adopt and consider certain information as the truth when numerous people on SNS frequently share it (Lei et al., 2017; Wang & Zhu, 2019). The rationale above led to the hypothesis:

**H2.** Perceived herd behavior has a positive direct effect on an individual's Trust in COVID-19 information shared on SNS.

This research also concludes that when certain information related to COVID-19 is liked and shared by many people, others are encouraged to do the same with their friends and relatives. This assumption corresponds with previous research related to this construction (Lee & Hong, 2016; Vedadi & Warkentin, 2020). Generally, individuals tend to follow the behavior conducted by many others, including in an online environment (Handarkho, 2020a). In this study context, when people know that a significant number of users have shared certain information, they tend to consider the content as reliable (Shen et al., 2016), which makes it easier to share the news with others. Therefore, this study proposed the hypothesis:

**H3.** Perceived herd behavior has a positive direct effect on social tie strength.
The third aspect, closeness, refers to the emotional tie that leads to the tendency to ignore another party's error. According to Handarkho (2020a), this bond is formed among friends and relatives and also developed toward people that are admired and respected, such as influencers, public figures, or idolized persons. Although considered a one-way bond, any relationship established on emotions tends to develop strongly (Peters & Kashima, 2007) and persuades individuals to imitate and follow the idea of the person they admire (Singh & Banerjee, 2018). This type of relationship is known as a parasocial interaction and refers to an individual's tendency to develop an emotional bond with a figure considered a guide or role model (Tsai & Men, 2017). Therefore, this research states that people tend to believe and consider any COVID-19 information shared on SNS by the figure they admire as the truth. Based on the argument, the following hypothesis was proposed:

H4. Parasocial interaction has a positive direct effect on an individual's Trust in the COVID-19 information shared on SNS.

2.2 | Individuals' SNS dependency

The SNS dependency theory was initially adopted from the Media Dependency theory proposed by Ball-Rokeach and DeFleur (1976), which explicitly denotes the extent of an individual's dependence on SNS to fulfill their daily goals (Lee & Choi, 2018). It states that the more individuals rely on these platforms, the easier it becomes for their behaviors and beliefs to be affected by “opinions” circulated on such platforms regarding specific issues (Baran & Davis, 2012; Ho et al., 2015). Based on this assumption, it is believed that people who regard SNS as their primary source of information presume that the content shared on the platform is reliable. This statement was supported by Carillo et al. (2017), which stated that people have biased judgment toward a particular idea when the level of dependency on the source is high. Destiny Apuke and Omar (2020) also asserted that individuals who depend on SNS to spend their free time tend to ignore the reliability of the message in the platform, consider it valid and worthy of being shared. Therefore, the hypothesis was proposed:

H5. SNS dependency has a positive direct effect on an individual's Trust in the COVID-19 information shared on the platforms.

2.3 | Uncertainty aspect

Ordinarily, individuals rationally elaborate on facts and information received before making decisions. However, in uncertain situations, such as the COVID-19 pandemic, people tend to take an “easy route” during decision-making related to the information's reliability. They are influenced by the circumstance and environment rather than content quality, as stated in the Elaboration Likelihood Model (ELM) (Vedadi & Warkentin, 2020; West & Turner, 2008). According to Petty et al. (1981), individuals under pressure experience challenges in thinking soberly and consequently choose the uncomplicated approach when responding to specific issues. Regarding online behavior, people are inclined toward feelings of insecurity when faced with uncertain situations, which leads to responses different from what they customarily used to be (Handarkho, 2020b). Oh and Lee (2019) stated that those with anxiety related to specific conditions could not differentiate the information they received correctly. Instead of applying cognitive effort to examine the message, individuals under pressure tend to choose the “peripheral” route by taking shortcuts while making decisions related to the reliability of the information they received (Chung et al., 2015). This research believes that uncertain situations encourage individuals to share information easily without carefully considering the truth. Such behaviors are performed to imitate what other SNS users do because they prefer the peripheral route (Lee & Hong, 2016; Lei et al., 2017; West & Turner, 2008). Specifically, Vedadi and Warkentin (2020) stated that people in uncertain circumstances tend to behave recklessly, decide to follow others’ opinions, and ignore their knowledge and consciousness. Consequently, an uncertain situation will encourage individuals to easily share received information without ensuring the quality and reliability of the content, including people who are considered close or in our circle. This study, however, conceptualizes the social tie strength based on the perspective of information dissemination in SNS, which refers to the impact of the distribution of COVID-19 news sent by people who are already familiar with the receiver, such as relatives and friends. Therefore, this study reported the following hypothesis:

H6. Uncertain situations have a positive direct effect on social tie strength.

Instead of applying cognitive effort to examine the message, the peripheral route uses the cues of the information in order to take a shortcut during decision-making (Chung et al., 2015). In the context of SNS, the cues are either in the form of a relationship between the individual and the source of the message or the number of times the information was shared and liked (Shi et al., 2018). Based on the aforementioned arguments, this study stated that the uncertain situation caused by COVID-19 moderates the direct impact of Social experience and SNS dependency factors on the development of Trust toward information received from SNS. The use of the uncertainty constructs as a moderating factor to determine the direct effect of the predictors of Trust was not deeply explored in a previous related study, which was considered a contribution to this research. Therefore, the following hypothesis was proposed:
H7. Uncertainty situation has a significant moderating effect on the direct effect of Social tie strength on an individual’s Trust of COVID-19 information shared on SNS.

H8. Uncertainty situation has a significant moderating effect on the direct effect of Perceived herd behavior on an individual’s Trust of COVID-19 information shared on SNS.

H9. Uncertainty situation has a significant moderating effect on the direct effect of Parasocial interaction on an individual’s Trust of COVID-19 information shared on SNS.

H10. Uncertainty situation has a significant moderating effect on the direct effect of SNS dependency on an individual’s Trust of COVID-19 information shared on SNS.

2.4 | Moderating factors

For an enriched outcome, four factors, namely age, gender, experience, and education, were also proposed to analyze their moderating effect on the direct impact of individual trust predictors of COVID-19 information received from SNS. The observation of age, gender, and experience was adopted from Venkatesh et al. (2012), while the use of education was new in this study context because of the gap in previous research that addressed this moderating factor.

3 | RESEARCH DESIGN AND METHODOLOGY

This study employed a cross-sectional approach in collecting data to validate the theoretical model, alongside online self-administered questionnaires, which were distributed via Google Forms to the respondents. Several questions from prior related research were adopted to develop the survey, which involved professionals to ensure that the Indonesian translation of the instrument from the English version was adequately performed. A prestudy was conducted by inviting six experts to ensure the questionnaires were accurate and the respondents did not encounter difficulties in answering them. In order to achieve a 5% precision and a 95% confidence level, a minimum size of 385–400 samples was needed as the population was over 100,000 (Israel, 1992; SurveyMonkey, 2020).

Because the adequate sample frame of the target population was unavailable, Neuman (2014) suggested using a purposive sampling method. This method is a nonrandom sampling approach based on prerequisites established to ensure the respondents’ qualification before answering the questionnaires that are suitable for the research context. Based on the report provided by Hootsuite (2020), the urban population comprises a majority of Indonesian digital users with an overall literacy rate above 15. Meanwhile, the age range of these SNS users is dominated by ages between 18 and 34 for both males and females. Therefore, this study ensures that the sample satisfies the requirement by focusing on respondents from urban areas with various background education to observe how Indonesian society develops their Trust toward COVID-19 information circulated in SNS. Educational background was considered during the selection due to the use as a moderating factor in this study. Consequently, this exploratory moderating factor was intended to observe individuals’ different responses with various background education to the formation of Trust in COVID-19 information received on online social platforms.

The respondents’ feedback was prepared using the principal factor analysis to determine the construct’s validity, followed by the application of Cronbach’s Alpha coefficients to check the internal consistency and reliability. Also, the Average Variance Extracted (AVE) and Composite Reliability (CR) were determined to achieve convergent and discriminant validity using Fornell and Larcker (1981) and Barclay et al. (1995) theories. The value of skewness and kurtosis was further calculated to determine the collected data’s suitability for the Structural Equation Modeling (SEM) analysis. Finally, the direct effects were analyzed using the SEM technique, followed by the multigroup analysis, which was performed with the AMOS software to address the moderating factors. The moderating factors were analyzed by forming two groups based on the respondents’ descriptive statistics for age, experience, gender, and education. Then, the difference between the critical ratios for each group was used to decide the factors with significant moderating effects on the direct impact of each trust predictor. All the research designs and approaches used for the analysis were employed based on the guidance provided by Neuman (2014) and Kline (2016).

4 | THEORETICAL MODEL AND MEASUREMENT

Figure 1 shows the proposed model, which consists of direct and moderating effects, while Table 2 shows the indicators and measuring instruments used in this research.
5 | DATA PREPARATION AND DESCRIPTIVE ANALYSES

5.1 | Data preparation

A total of 390 samples were collected, which satisfy the minimum size of 385–400 respondents needed for the population was over 100,000, to achieve a 5% precision and a 95% confidence level (Israel, 1992; SurveyMonkey, 2020). The sample was collected from respondents living in urban areas in Indonesia, which are dominated by persons aged between 20 and 40 years, with experience of above 5 years in SNS usage. Regarding COVID-19 information, more than 60% share the news they get to other people on SNS. The criterion of target sampling was established based on the respondents' qualification, which was proposed based on Hootsuite's (2020) report regarding the characteristics of SNS users in Indonesia.

The principal component analysis was performed to check each indicator's construct validity by ensuring they were significantly loaded with the latent variable. Meanwhile, the equivalence's reliability was checked by employing Cronbach's alpha coefficients based on the guidance provided by George and Mallery (2003). The convergent validity was measured using the AVE (Average Variance Extracted) and CR (Composite Reliability), with the minimum acceptable values obtained to be above 0.5 and 0.7, respectively (Fornell & Larcker, 1981). Also, the discriminant validity evaluation was acceptable when AVE's square root was more significant than the latent variables' correlation results (Barclay et al., 1995). The results from all the factor analyses are shown in Table 3, and all the values were observed to satisfy the requirement.

5.2 | Descriptive analyses

Table 4 summarizes all the respondents' characteristics, where the majority, at a value of 32.8%, were within the age range of 30–40 years. This quantity was followed by those within 20–25 years, which accounted for 27.7%, while the rest, aged 25–30 years, made up 19%.

According to educational qualification, 38.5% had a bachelor's degree, 28.5% had attended senior high school, while 22.8% were masters' students. Furthermore, 94.1% had over 5 years of experience in SNS usage. The results showed that the respondents met the prerequisites established based on the sample criterion for this study, which was derived from the report provided by Hootsuite (2020), and were mature and qualified for the research context.
According to the criterion proposed by Kline (2016), the values of 3 and 7, respectively produced by analyzing skewness and kurtosis, revealed that the collected data were suitable to verify the theoretical model using SEM.

Furthermore, the result from the correlations among model variables indicates all model variable is significant correlate with p-value <0.05, as shown in Table 5.

### TABLE 2  Indicators and measuring instrument

| Variable (symbol) | Indicator | Measuring instrument | Adopted from |
|-------------------|-----------|----------------------|--------------|
| Trust (T)         | T1        | Information shared in SNS provided accurate content about COVID-19 | Yoo and Choi (2019) |
|                   | T2        | SNS provided sufficient information about COVID-19 |              |
|                   | T3        | I believe the content in SNS reports on COVID-19 would be true |              |
| Social tie strength | TS1      | I believed my friends would share true information related to COVID-19 in SNS | Shim and Altmann (2016) |
|                   | TS2      | I believed my family would share true information related to COVID-19 in SNS |              |
|                   | TS3      | I believed my colleagues would share true information related to COVID-19 in SNS |              |
| Perceived herd    | PH1      | My decision to use COVID-19 information shared in SNS is influenced by the number of people who like and share it | Lee and Hong (2016) |
|                   | PH2      | If I find that many of my acquaintances share certain COVID-19 information in SNS, then I would be more willing to use and trust it |              |
|                   | PH3      | The more people share and like the certain COVID-19 Information in SNS, the more preferable it is for me to use and share it |              |
| Parasocial interaction | PS1 | I am comfortable using COVID-19 information shared in SNS by the figure that I admired and respect | Tsai and Men (2017) |
|                   | PS2      | I look up to the Figure I admired and respect, related to COVID-19 Information |              |
|                   | PS3      | I seek guidance from the Figure I admired and respect related to COVID-19 information |              |
|                   | PS4      | I often compare my ideas with what information share by the figure I admired and respected on his or her SNS pages |              |
| SNS dependency    | SD1      | I usually get COVID-19 information through SNS | Lee and Choi (2018) |
|                   | SD2      | I utilize COVID-19 information gained from SNS |              |
|                   | SD3      | I immediately update COVID-19 information received from SNS |              |
| Uncertainty       | U1       | After receiving COVID-19 news shared in SNS, I have confidence it will help reduces a degree of Uncertainty related to this current situation | Shin et al. (2017) |
|                   | U2       | After receiving COVID-19 news shared in SNS, I feel Uncertainty associated with the contents on postings is low |              |
|                   | U3       | There is a high degree of Uncertainty when I get inadequate information related to COVID-19 from SNS |              |

According to the criterion proposed by Kline (2016), the values of 3 and 7, respectively produced by analyzing skewness and kurtosis, revealed that the collected data were suitable to verify the theoretical model using SEM.

Furthermore, the result from the correlations among model variables indicates all model variable is significant correlate with p-value <0.05, as shown in Table 5.

### 6  MODEL ANALYSIS AND DEVELOPMENT

The result from the SEM analysis is shown in Figure 2. The value of direct effects was stated in the following format unstandardized effectStatistical significance (standardized effect and magnitude). The statistical significance was shown by *, **, or ***, which refers to the significance level at 0.05, 0.01, 0.001, respectively. Meanwhile the magnitude was categorized into S (small), M (medium), and L (large) based on the following rules relating to the value of the standardized effect ≤0.1 → S, between 0.1 and 0.5 → M, and ≥0.5 → L (Cohen, 1988). The compilation of the SEM analysis results, which consists of the proposed hypothesis on the direct, indirect, and moderating factors, are shown in Table 6. Subsequently, the indirect effect’s value was derived from the combination of the results as in H3 + H1 and H7 + H1, determined using the heuristic technique by Cohen and Cohen (1983).

Furthermore, Table 7 shows the fit statistic for the theoretical model, and the result from the analysis shows that the model fits the data. In detail, the value of Normed Chi-square, which was obtained to be between 1 and 5, shows that the model has at least a reasonable model fit (Kline, 2016). Meanwhile, for GFI and AGFI, the recommended value exceeds 0.9; however, a value of 0.8 is still acceptable (Cheng, 2011). NFI, IFI, CFI need to have values >0.9; this shows a good model fit, followed by the recommended value of RMSEA, which is between 0.05 and 0.08.
to achieve a reasonable fit (Kline, 2016). Subsequently, to achieve a good fit, the value of RMR needs to be approximately 0 and is considered weak when the value is relatively 1 (Hooper et al., 2008).

For the uncertainty situation, two groups were formed based on the neutral value of three on a 5-point measurement scale. The first group was for respondents with an average response toward indicator U1–U3 which was equal and below to three, while the second group was above. Meanwhile, for Age, Experience, Gender, and Education, the descriptive statistics were used as the basis for determining the moderating group. Finally, the evaluation of the moderating effects was conducted with the Multigroup analysis and the AMOS software. The final significant result is shown in Table 8.

## DISCUSSION OF THE FINDINGS

### 7.1 Direct, indirect, and moderating effect

The result shows that SNS dependency had the most substantial direct effect on trust formation (H5), followed by tie strength (H1) and the perceived herd behavior (H2). This result corresponds with prior studies, which state that people tend to trust information derived from dependable sources (Baran & Davis, 2012; Ho et al., 2015). The findings from H1 and H2 also confirm the postulations by prior research that both tie strength and the perceived herd behavior increase the development of Trust in information circulating in SNS (Handarkho, 2020a; Wang & Zhu, 2019).

Meanwhile, for the indirect effect, it was discovered that the impact of tie strength on Trust was influenced by the perceived herd and uncertainty situation (H3 and H6). It means people tend to follow particular actions performed by a significant number of people, such as sharing and adhering...
TABLE 4  Personal characteristics of respondents

| Measure      | Items       | Frequency | Percent | Measure       | Items       | Frequency | Percent |
|--------------|-------------|-----------|---------|---------------|-------------|-----------|---------|
| Age (in year)| 16–19       | 29        | 7.4     | Education (continue) | Others     | 4         | 1.0     |
|              | 20–25       | 108       | 27.7    |               | Total       | 390       | 100.0   |
|              | 25–30       | 74        | 19.0    | Experience (in year) | <5         | 23        | 5.9     |
|              | 30–40       | 128       | 32.8    |               | 5–10        | 214       | 54.9    |
|              | 40–50       | 34        | 8.7     |               | 11–15       | 128       | 32.8    |
|              | ≥50         | 17        | 4.4     |               | 16–20       | 20        | 5.1     |
| Total        | 390         | 100.0     |         |               | >20         | 5         | 1.3     |
| Gender       | Male        | 161       | 41.3    | SNS source    | FB          | 57        | 14.6    |
|              | Female      | 229       | 58.7    |               | Twitter     | 32        | 8.2     |
| Total        | 390         | 100.0     |         |               |             |           |         |
| Education    | Junior high school | 2    | 0.5     | Instagram     | 114        | 29.2     |
|              | Senior high school | 111   | 28.5    | WhatsApp      | 140        | 35.9     |
|              | Associate degree | 15    | 3.8     | YouTube       | 16         | 4.1      |
|              | Bachelor    | 150       | 38.5    | Line          | 26         | 6.7      |
|              | Master      | 89        | 22.8    | Others        | 5          | 1.3      |
| PhD          | 19          | 4.9       |         |               | Total       | 390       | 100.0   |

TABLE 5  The correlations among model variables

| Measure                 | Mean  | SD    | Age     | Gender    | Exp | U  | T  | TS | PH | PS | SD |
|-------------------------|-------|-------|---------|-----------|-----|----|----|----|----|----|----|
| Age                     |       |       | 1       |           |     |    |    |    |    |    |    |
| Gender                  | –0.183* | 0.687 | 1       |           |     |    |    |    |    |    |    |
| Experience              | 0.055 | 0.687 | 1       |           |     |    |    |    |    |    |    |
| Uncertainty             | 3.295 | 0.807 | –0.024  | –0.016    | –0.023 | 1 |    |    |    |    |    |
| Trust                   | 3.213 | 0.906 | –0.046  | –0.062    | –0.053 | 0.222* | 1 |    |    |    |    |
| Tie strength            | 2.871 | 0.879 | –0.026  | –0.054    | 0.210* | 0.584* | 1 |    |    |    |    |
| Perceived herd          | 2.423 | 0.988 | –0.011  | –0.050    | 0.172* | 0.243* | 0.413* | 0.557* | 1 |
| Parasocial interaction  | 2.973 | 0.999 | –0.001  | –0.050    | 0.359* | 0.462* | 0.429* | 0.386* | 0.391* | 1 |
| SNS dependency          | 3.671 | 0.828 | –0.035  | –0.057    | 0.462* | 0.429* | 0.386* | 0.391* | 1 |

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

FIGURE 2  The result from SEM analysis
TABLE 6  SEM analysis of the hypothesis on the theoretical model

|                  | Total effect | Status |
|------------------|--------------|--------|
| **Direct effect**|              |        |
| Tie strength → Trust (H1) | 0.464*** (0.430 M) | Accepted |
| Perceived herd → Trust (H2) | 0.186** (0.184 M) | Accepted |
| Perceived herd → Tie strength (H3) | 0.549*** (0.588 L) | Accepted |
| Parasocial interaction → Trust (H4) | −0.156** (−0.162 M) | Accepted |
| SNS dependency → Trust (H5) | 0.490*** (0.307 M) | Accepted |
| Uncertainty → Tie strength (H6) | 0.117* (0.103 M) | Accepted |
| **Indirect effect** |              |        |
| Perceived herd → Tie strength → Trust | 0.254*** (0.253 M) | Accepted |
| Uncertainty → Tie strength → Trust | 0.054* (0.048 S) | Accepted |

Notes: (1) The statistical significance of indirect effect was determined using the heuristic by Cohen and Cohen (1983); (2) → refers to moderating effect; (3) NS = not statistically significant.

** and *** represent statistical significance at levels of 0.05, 0.01 and 0.001, respectively.

The moderating effect analysis revealed that the elderly tend to disagree that emotional ties with people they admired influenced their Trust in COVID-19 information. This finding corresponds with previous research conducted on the perceived herd factor (Lee & Hong, 2016). The results also confirm the study performed by Petty et al. (1981), which stated that individuals under pressure tend to respond to specific issues with a peripheral approach. In this case, it involves discounting their knowledge and following the majority decision (Vedadi & Warkentin, 2020).

However, it was discovered that parasocial interaction had a negative significance (H4). This means that when people realize that the COVID-19 information was from a celebrity or famous people, their Trust in the reliability decreased. These findings are contrary to previous studies that stated that construct persuades an individual to follow the idea of the person they admire (Singh & Banerjee, 2018). An explanatory argument for this result was derived from another previous research, which reported that the impact of parasocial interaction is more useful for the hedonic aspect than the functional (Jin, 2018).

The moderating effect analysis revealed that the elderly tends to disagree that emotional ties with people they admired influenced their Trust in COVID-19 information. This result corresponds with the study performed by Handarkho (2020a), which stated that the parasocial construct’s impact is more significant for younger people. However, the impact on the number of users that liked and shared certain information was significant among the elderly, meaning that older people tend to consider the popularity of COVID-19 information as an indicator of truth. Also, the direct effect of SNS dependence on Trust was affected by the individual’s educational background. Further, the results showed that this influence was more substantial for people with higher backgrounds. This finding indicates that this group of people consider SNS to be a reliable source that

to the COVID-19 information. This finding corresponds with previous research conducted on the perceived herd factor (Lee & Hong, 2016). The results also confirm the study performed by Petty et al. (1981), which stated that individuals under pressure tend to respond to specific issues with a peripheral approach. In this case, it involves discounting their knowledge and following the majority decision (Vedadi & Warkentin, 2020).

However, it was discovered that parasocial interaction had a negative significance (H4). This means that when people realize that the COVID-19 information was from a celebrity or famous people, their Trust in the reliability decreased. These findings are contrary to previous studies that stated that construct persuades an individual to follow the idea of the person they admire (Singh & Banerjee, 2018). An explanatory argument for this result was derived from another previous research, which reported that the impact of parasocial interaction is more useful for the hedonic aspect than the functional (Jin, 2018).

The moderating effect analysis revealed that the elderly tends to disagree that emotional ties with people they admired influenced their Trust in COVID-19 information. This result corresponds with the study performed by Handarkho (2020a), which stated that the parasocial construct’s impact is more significant for younger people. However, the impact on the number of users that liked and shared certain information was significant among the elderly, meaning that older people tend to consider the popularity of COVID-19 information as an indicator of truth. Also, the direct effect of SNS dependence on Trust was affected by the individual’s educational background. Further, the results showed that this influence was more substantial for people with higher backgrounds. This finding indicates that this group of people consider SNS to be a reliable source that

TABLE 7  Fit statistics for the final model

| Model      | Sample size | NC (χ²/df) | RMR | GFI | AGFI | NFI | IFI | CFI | RMSEA |
|------------|-------------|------------|-----|-----|------|-----|-----|-----|-------|
| Final model| 390         | 328.542/140| 2.347| 0.055| 0.919| 0.898| 0.950| 0.971| 0.059 |

R²: trust (44.8%); tie strength (38.6%)

TABLE 8  The result from the significant moderator effects

| Moderator | Unstandardized estimate | Standardized estimate | Magnitude | Unstandardized estimate | Standardized estimate | Magnitude | Critical ratios for differences |
|-----------|-------------------------|-----------------------|-----------|-------------------------|-----------------------|-----------|-------------------------------|
| Age       | ≤30 (211)               | >30 (179)             |           |                         |                       |           |                               |
| PS → T    | −0.076 NS (−0.085 S)    | −0.273*** (−0.259 M)  |           |                        |                       |           |                               |
| PH → T    | 0.044 NS (0.045 S)      | 0.362*** (0.346 M)    |           |                        |                       |           |                               |
| Education | <Bachelor (132)         | ≥Bachelor (258)       |           |                         |                       |           |                               |
| SD → T    | 0.271* (0.156 M)        | 0.591*** (0.388 M)    |           |                        |                       |           |                               |
| Uncertainty| Disagree and neutral  | Agree (242)           |           |                         |                       |           |                               |
| SD → T    | 0.236*** (0.184 M)      | 0.672*** (0.328 M)    |           |                        |                       |           |                               |

* and *** represent statistical significance at levels of 0.05 and 0.001, respectively.
helps them acquire trusted information related to COVID-19. Meanwhile, those who believe the COVID-19 information received from SNS are adequate to reduce their uncertainty believe that SNS dependency significantly impacts Trust. Hopefully, this experimental result related to the moderating effect of education background can enrich the understanding of trust formation in this research context.

7.2 Theoretical implications

This study proposes a comprehensive perspective on how Trust in the information derived from SNS is developed in uncertain situations such as COVID-19 in collectivist societies such as Indonesia. Three aspects, namely social interaction, media dependency, and uncertainty, were combined to bring a thorough understanding of this subject from the aspects of the direct effect, total, and moderating effects. The result from a social impact perspective explicitly shows the various forms of influence of others toward individual Trust in COVID-19 information circulated in SNS. This comprehensive observation from a social perspective has not been discussed in detail by prior studies and can contribute to research. For instance, findings show that information from those close and familiar with the user is a primary antecedent in trust development concerning the COVID-19 information received via SNS.

Meanwhile, the result of the SNS dependency effect on trust formation reconfirms the significant position and influence of this platform in the current situation concerning the dissemination of COVID-19 information in society. This study also reported that uncertain situations could increase users’ tendency to share information they received in SNS, leading to the formation of Trust. Lastly, the application of education as a moderating factor was considered an additional contribution to complement the use of age, gender, and experience, which had already been explored by many previous studies in a similar context.

7.3 Practical implications

These research results propose several practical implications to help Indonesian policymakers and society anticipate the false COVID-19 information disseminated on SNS. As shown in Table 8, the high dependency of SNS needs to be balanced by society’s readiness to face the COVID-19 content circulated on the platform. To equip society, stakeholders, such as the government or NGOs, need to educate people on the importance of digital literacy regarding SNS. This education is essential because this platform is presumed to be a primary source of receiving COVID-19 information in Indonesia. Therefore, stakeholders need to balance the information circulating on the SNS by posting more trusted news related to COVID-19 to help society get more reliable content and counter the spread of hoaxes on SNS. This action is proposed because the current uncertain situation makes many people impulsively share the information they receive with their relatives and friends. Hopefully, the counterbalancing from official and reliable sources can help society receive more reliable information to diminish the Trust in malicious content circulated on SNS. The provision of official sources that are easily accessed and offer a quick response will encourage society to regularly confirm the reliability of COVID-19 information they receive on SNS instead of taking a “peripheral” route. Additionally, the related government organizations need to make official accounts in several different SNS platforms as each information and content in every site may have different affordances and characteristics.

The results also show that uncertainty affects users’ tendency to disseminate COVID-19 information to their relatives and friends without clarifying the correctness. Therefore, the government and related organizations need to ensure the stability of situations related to the pandemic from various concerned aspects by providing reliable answers to diminish uncertainty in the community. To achieve that, the government needs to establish a communication strategy that makes accessibility and the openness of information primary aspects in dealing with COVID-19 issues to reduce society’s uncertainty (Zhang et al., 2020). This strategy includes establishing interpersonal communication that can be achieved through government representatives, which are reachable by people and are believed to help reduce the uncertainty in society (Littejohn et al., 2017).

Meanwhile, the significant negative outcome of the parasocial interaction showed that people’s Trust in information reduced when they realized it emanated from public figures or influencers. It indicates that the choice of a public figure as an “ambassador” to spread information needs to be evaluated, mainly according to the individual’s credibility, reputation, and competence. Also, it is relevant to assess the content they represent, which are health issues in this case. Based on this finding, the Indonesian government needs to review and think wisely about their current celebrity endorsement strategy that was adopted to spread awareness related to COVID-19 in society. Without a proper approach, a parasocial interaction strategy might adversely affect the objective that is to be achieved. This is supported by Handarkho’s (2020a) research, which stated that public figures that are not suitable and relevant to the advertisement objectives tend to harm the aim that needs to be achieved.

8 CONCLUSION, LIMITATION, AND FUTURE RESEARCH

In summary, this research contributes both to the theoretical and practical implications. From a knowledgeable perspective, it states how media dependency and social impact influence the formation of Trust in certain COVID-19 news on SNS in the Indonesian context. It also discusses the indirect and moderating contribution of uncertain situations to trust formation. The insight of how age, experience, gender, and educational background
moderate the trust antecedent is added to enrich the findings. Meanwhile, the practical implication was also proposed based on the direct, indirect, and moderating effects, which were not profoundly discussed in previous studies. These additions were considered contributions to this research.

This study narrows the antecedent of Trust by focusing on social factors in the SNS, which correspond with Indonesian’s societal culture. However, the role of personal influence was slightly neglected in the theoretical model. This means that the involvement of individual factors integrated with social and environmental aspects can be proposed in a future study to investigate the trust formation in information on SNS in a more comprehensive manner. The conceptual definition of Trust used in this study was limited to individuals’ judgments of the reliability of the COVID-19 information based on social experience. This fact makes replicating this study limited and urges the need to deliberate the research context used in this study. Furthermore, although a study limitation includes that the data used to verify the model is only useful in Indonesia, the study replication is accessible in any geographical area with a similar culture. However, cross-cultural research is a potential future study that needs to be explored to compare the Trust in the information circulated on SNS in different cultures, such as between eastern and western society.

ACKNOWLEDGMENT
The authors wish to express their gratitude for the support from Universitas Atma Jaya Yogyakarta (UAJY) Indonesia.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID
Yonathan Dri Handarkho https://orcid.org/0000-0002-2789-5524

REFERENCE
Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. Journal of Economic Perspectives, 31(2), 211–236.
Anaya-Sánchez, R., Aguilar-Illescas, R., Molinillo, S., & Martínez-López, F. J. (2020). Trust and loyalty in online brand communities. Spanish Journal of Marketing - ESIC, 24(2), 177–191.
Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A dependency model of mass-media effects. Communication Research, 3(1), 3–21.
Baran, S. J., & Davis, D. K. (2012). Mass communication theory: Foundations, ferment, and future (6th ed.). Wadsworth.
Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. Technology Studies, 2(2), 285–309.
Burroughs, B., & Burroughs, W. J. (2011). The Masal Bugduv Hoax: Football blogging and journalistic authority. New Media and Society, 14(3), 476–491.
Cao, X., Yu, L., Liu, Z., Gong, M., & Adeel, L. (2018). Understanding mobile payment users’ continuance intention: A trust transfer perspective. Internet Research, 28(2), 456–476.
Carillo, K., Scornavacca, E., & Za, S. (2017). The role of media dependency in predicting continuance intention to use ubiquitous media systems. Information and Management, 54(3), 317–335.
Chavez, W., Ben, I., & Soudien, N. (2016). The interplay of counter-conformity motivation, social influence, and trust in customers’ intention to adopt internet banking services: The case of an emerging country. Journal of Retailing and Consumer Services, 28, 209–218.
Cheng, S.-L. (2011). Comparisons of competing models between attitudinal loyalty and behavioral loyalty assistant professor Department of Business Administration. International Journal of Business and Social Sciences, 2(10), 149–166.
Cheung, M. L., Pires, G., & Rosenberger, P. J. (2020). The influence of perceived social media marketing elements on consumer-brand engagement and brand knowledge. Asia Pacific Journal of Marketing and Logistics, 32(3), 695–720.
Chung, N., Han, H., & Koo, C. (2015). Adoption of travel information in user-generated content on social media: The moderating effect of social presence. Behavior and Information Technology, 34(9), 902–919.
Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). Academic Press.
Cohen, J., & Cohen, P. (1983). Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences (3rd ed.). Erlbaum.
Destiny Apuke, O., & Omar, B. (2020). Fake news and COVID-19: Modelling the predictors of fake news sharing among social media users. Telematics and Informatics, 101475.
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50.
Garza, Alejandro Dela (2020). How social media is shaping our fears of—And response to—The coronavirus, Retrieved from https://time.com/5802802/social-media-coronavirus/
George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference, 11.0 update. Allyn and Bacon.
Gong, Z., Wang, H., Guo, W., Gong, Z., & Wei, G. (2020). Measuring trust in social networks based on linear uncertainty theory. Information Sciences, 508, 154–172.
Handarkho, Y. D. (2020a). Impact of social experience on customer purchase decisions in the social commerce context. Journal of Systems and Information Technology, 22(4), 47–71.
Handarkho, Y. D. (2020b). The factors influencing customer loyalty in a social commerce platform: Variety-seeking and social impact perspective. International Journal of Web Information Systems, 16(4), 369–386.
Halpern, D., Zavala, S., Katz, J., & Miranda, J. P. (2019). From belief in conspiracy theories to trust in others: Which factors influence exposure, believing and sharing fake news. In G. Meiselwitz (Ed.), Social computing and social media. Design, human behavior, and analytics (Vol. 11578, pp. 217–232). Springer.
Ho, S. S., Liao, Y., & Rosenthal, S. (2015). Applying the theory of planned behavior and media dependency theory: Predictors of public pro-environmental behavioral intentions in Singapore. Environmental Communication, 9(1), 77–99.

Hofstede-insights (2019). “Country comparison”, available at: www.hofstede-insights.com/country-comparison/indonesia

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. Electronic Journal of Business Research Methods, 6(1), 56–60.

Hootsuite, 2020, “Digital 2020 Indonesia”, Hootsuite (We are social) Indonesian digital report. Retrieved from https://wearesocial.com/digital-2020

Israel, G. D. (1992). Determining sample size. University of Florida, Institute of Food and Agricultural Sciences, FL.

Jin, S. V. (2018). Celebrity 2.0 and beyond: Effects of Facebook profile sources on social networking advertising. Computers in Human Behavior, 79, 154–168.

Khan, M. L., & Idris, I. K. (2019). Recognize misinformation and verify before sharing: A reasoned action and information literacy perspective. Behavior and Information Technology, 38(12), 1194–1212.

Kim, H. (2019). The role of trust in rumor suppression on social media: A multi-method approach applying the trust scores in social media (TSM) algorithm. ProQuest Dissertations & Theses Global.

Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). The Guilford Press.

Lee, J., & Choi, Y. (2018). Informed public against false rumor in the social media era: Focusing on social media dependency. Telematics and Informatics, 35(5), 1071–1081.

Lee, J., & Hong, I. B. (2016). Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity. International Journal of Information Management, 36(3), 360–373.

Lei, Y., Yayla, A. A., & Kahai, S. (2017). Guiding the herd: The effect of reference groups in crowdfunding decision making. Proceedings of the 50th Hawaii International Conference on System Sciences, 1912–1921.

Littejohn, S. W., Foss, K. A., & Gerzel, J. G. (2017). Theories of human communication (11th ed.). Waveland Press.

Nielsen (2020), Race against COVID-19: A deep dive on how Indonesian consumers are reacting to the virus. Retrieved from https://id/en/insights/article/13.

Oh, H. J., & Lee, H. (2019). When do people verify and share health rumors on social media? The effects of message importance, health anxiety, and health literacy. Journal of Health Communication, 24(11), 837–847.

Peters, K., & Kashima, Y. (2007). From social talk to social action: Shaping the social triad with emotion sharing. Journal of Personality and Social Psychology, 93(3), 780–797.

Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. Journal of Personality and Social Psychology, 41(5), 847–855.

Singh, R. P., & Banerjee, N. (2018). Exploring the influence of celebrity credibility on brand attitude, advertisement attitude and purchase intention. Global Business Review, 19(6), 1622–1639.

Shen, X., Zhang, K. Z. K., & Zhao, S. J. (2016). Herd behavior in consumers’ adoption of online reviews. Journal of the Association for Information Science and Technology, 67(11), 2754–2765.

Shi, J., Hu, P., Lai, K. K., & Chen, G. (2018). Determinants of users’ information dissemination behavior on social networking sites: An elaboration likelihood model perspective. Internet Research, 28(2), 393–418.

Shin, S. I., Lee, K. Y., & Yang, S. B. (2017). How do uncertainty reduction strategies influence social networking site fan page visiting? Examining the role of uncertainty reduction strategies, loyalty, and satisfaction in continuous visiting behavior. Telematics and Informatics, 34(5), 449–462.

Shim, D., & Altmann, J. (2016). How marginally does impulse buying intention change in social commerce? Nonparametric regression approach. Global Media Journal, 14(27), 1–13.

Straub, D., Boudreau, M.-C., & Gefen, D. (2004). Validation guidelines for is positivist research. Communications of the Association of Information Systems, 13, 420–427.

Sun, H. (2009). Understanding herd behavior in technology adoption and continued use: A longitudinal perspective. DIGIT 2009 Proceedings. 11, 1–9.

SurveyMonkey (2020). Sample size calculator: Understanding sample sizes | SurveyMonkey. Retrieved from https://www.surveymonkey.com/mp/sample-size-calculator/.

Thestar (2020). Covid-19: Why the novel coronavirus became a social media nightmare. Retrieved from https://www.thestar.com.my/tech/tech-news/2020/03/29/covid-19-why-the-novel-coronavirus-became-a-social-media-nightmare

Torres, R. R., Gerhart, N., & Negahban, A. (2018). Epistemology in the era of fake news: An exploration of information verification behaviors among social network users. The Data Base for Advances in Information Systems, 49(3), 78–97.

Tsai, W. H. S., & Men, L. R. (2017). Social CEOs: The effects of CEOs’ communication styles and parasocial interaction on social networking sites. New Media and Society, 19(11), 1848–1867.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Extending the unified theory of acceptance and use of technology, MIS Quarterly, 36(1), 157–178.

Vedadi, A., & Warkentin, M. (2008). Structural equation modelling: Guidelines for determining model fit. Electronic Journal of Business Research Methods, 6(1), 56–60.

West, R., & Turner, L. (2008). Introducing communication theory. McGraw Hill.

Yoo, W. (2019). How risk communication via Facebook and twitter shapes behavioral intentions: The case of fine dust pollution in South Korea. Journal of Health Communication, 24(7–8), 663–673.

Yoo, W., & Choi, D. (2019). Predictors of expressing and receiving information on social networking sites during MERS-CoV outbreak in South Korea predictors of expressing and receiving information on social. Journal of Risk Research, 23(7–8), 912–927.

Zhang, L. Li. H., & Chen, K. (2020). Effective risk communication for public health emergency: Reflection on the COVID-19 (2019-nCoV) outbreak in Wuhan, China. Healthcare, 8(1), 64.
AUTHOR BIOGRAPHIES

**Yonathan Dri Handarkho** is a lecturer at the Department of Informatics, Faculty of Industrial Technology, Universitas Atma Jaya Yogyakarta, Indonesia. He obtains a Ph.D. of Information Technology from Vincent Mary School of Science and Technology, Assumption University of Thailand, and holds a Master of Engineering degree from Universitas Gadjah Mada, Indonesia. His research interests are based on information technology acceptance, human behavior, CRM technology, and mobile app.

**Dhyah Ayu Retno Widyastuti** is a Lecturer in Communication Science Department at University of Atma Jaya, Yogyakarta (UAJY). She holds the Master of Science degree from University of Sebelas Maret. Her main areas of research and society empowerment interests include gender and women empowerment issue, advertising, and marketing communications.

**Yulius Harjoseputro** is a lecturer at Department of Informatics, Faculty of Industrial Technology, Universitas Atma Jaya Yogyakarta-Indonesia, where he completed a Graduate studies in a Master study Program on Informatics Engineering. The focus of his research is on image processing, deep learning, and mobile computing.

---

**How to cite this article:** Handarkho, Y. D., Widyastuti, D. A. R., & Harjoseputro, Y. (2022). The effect of the social aspect, media dependency, and uncertainty against the formation of Trust toward information in social network sites: A case study of COVID-19 information in Indonesia. *The Electronic Journal of Information Systems in Developing Countries, 88*(1), e12196. [https://doi.org/10.1002/isd2.12196](https://doi.org/10.1002/isd2.12196)