

Explaining Youth Online Disaster Risk Information Seeking in Disaster-Prone Areas: A Case of an Indonesian Coastal Community

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ABSTRACT

Indonesia faces significant challenges in disaster management due to its position as the second most at-risk country for disasters worldwide, with coastal communities particularly vulnerable to multiple hazards, including earthquakes, tsunamis, and climate-related disasters. This study tested the utility of the Risk Information Seeking and Processing (RISP) model in explaining disaster risk information-seeking intentions among rural youth in Indonesia. Participants (N = 98) completed a survey measuring RISP constructs, including information insufficiency, perceived hazard characteristics, affective response, informational subjective norms, perceived information-gathering capacity, and behavioral beliefs. Regression analysis showed that perceived hazard characteristics ($\beta = 0.114$, $p < .05$) and informational subjective norms ($\beta = 0.344$, $p < .001$) were significant predictors of information-seeking intention, while affective response and behavioral beliefs were not significant ($p > .05$). The RISP model explained 23.6% of the variance in information-seeking intention ($R^2 = 0.236$, Adjusted $R^2 = 0.203$). Adding gender as a random effect slightly improved model fit (Conditional $R^2 = 0.267$), but gender accounted for minimal variance. These findings extend the RISP model to a high-risk, underrepresented population and provide important theoretical and practical insights for designing targeted risk communication strategies to enhance disaster preparedness among youth.

KEYWORDS

disaster preparedness; information seeking; risk communication; RISP model; youth



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INTRODUCTION

Indonesia is acknowledged globally as one of the countries that are most vulnerable to natural disasters. Catastrophic events like the 2004 Indian Ocean tsunami and the 2010 Mount Merapi eruption serves as critical wake-up calls for the disaster mitigation community. The Government of Indonesia has implemented various disaster risk reduction initiatives, including regulatory reinforcement, comprehensive disaster risk assessments, enhancement of early warning systems and real-time disaster information platforms, as well as post-disaster rehabilitation and reconstruction efforts. In addition, community-based initiatives have been promoted, such as *Desa Tangguh Bencana* and *Taruna Siaga Bencana*, which focus on disaster risk education. More recently, the government introduced the *Satuan Pendidikan Aman Bencana* program to promote disaster resilience within educational institutions. Yet still, decades later, disaster management efforts have yet to yield satisfactory results. Based on the 2024 World Risk Index Report (IFHV, 2024), Indonesia is ranked as the second most at-risk country for disasters worldwide. This rank reflects a combination of high exposure, vulnerability, and susceptibility, along with limited coping and adaptive capacities.

In addition to government-led disaster mitigation policies, individual preparedness plays a critical role. However, disasters have long been perceived in Indonesian society as acts of God: as warnings, trials, or punishments for human behavior (Shalihin, 2024), creating psychological barriers that hinder proactive preparedness (Sun & Liu, 2023; Demirbilek, ö., &

Uzman, 2023). As a result, individuals are often seen solely as “victims”, dependent on external aid, causing disaster management to prioritize emergency response over long-term risk reduction and preparedness (Setyorini, 2023). Therefore, we need to shift the perspective to lean heavily on people agency. One of the keys to involving individuals in disaster preparedness is through effective risk communication.

Risk communication serves as a crucial mechanism for fostering individual engagement in disaster preparedness. According to Rohrmann (see Tekeli-Yesil et al., 2020), risk communication is viewed as a social process that enables individuals to acquire information and awareness about potential hazards, encourages behavioral adjustments, and facilitates informed decision-making regarding risks. One significant outcome of effective risk communication is the stimulation of information-seeking behavior, wherein individuals actively pursue credible sources to deepen their understanding of risk (Kirschenbaum et al., 2017; Tekeli-Yesil et al., 2020). Thus, analyzing how individuals seek and evaluate risk-related information is essential for the formulation of communication strategies that effectively promote preparedness-oriented actions. Thus, disaster preparedness behaviour is closely shaped by the way risks are communicated (Li & Liu, 2023; Levy & Bodas, 2024). Previous studies highlight several barriers to effective risk communication, such as low trust in information sources including inconsistent or overly complex messaging, lack of clarity or completeness (Wang et al., 2021), language barrier (Tomec & Gričar, 2024), and various psychological and social factors (McColl et al., 2022; Shah & Wei, 2022) that affect how information is processed.

In Indonesia, 99.3% of Indonesians aged 16 to 64 are active smartphone users (We Are Social, 2024). Information about disasters is usually presented by national and provincial governments, such as BMKG (Meteorology, Climatology and Geophysics Agency), BNPB (National Board for Disaster Management), and BPBD (Regional Disaster Management Agency) through various platforms, including online platforms. However, the download rate of disaster-related apps remains low. The Info BMKG app has been downloaded by only 2.38% of users, while the inaRISK Personal app, launched by BNPB, has reached just 0.04% (BMKG, 2025; InaRISK, n.d.). This gap indicates limited public interest in actively seeking disaster risk information.

Contrary, findings from a global study by Trinh & Jensen (2025) suggest that Indonesia stands out as one of the countries with a high proportion of “Multi-source” information seekers, individuals who actively consult diverse channels including official agencies, media, social media, and influential figures. Importantly, this group shows the highest likelihood of having disaster preparedness plans (Trinh & Jensen, 2025).

Previous studies have reported diverse findings on how Indonesians seek information. However, they have largely focused on the sources of information used (Murphy, 2013; Leelawat et al., 2017; Koto et al., 2024; Trinh & Jensen, 2025) and have not yet explored the factors that explain disaster risk-information seeking. Understanding the factors that shape disaster risk-information seeking behavior is crucial and merits further investigation, particularly among youth living in disaster-prone coastal communities.

Further investigation for these specific groups is important due to the search for disaster risk information is influenced not only by technological access but also by socio-cultural and

infrastructural disparities. Despite the significant growth in internet usage, reaching 66,5% of the population in 2023 with average daily browsing time about 7 hours 38 minutes (We Are Social, 2024), digital inequality between urban and rural areas remains a pressing issue. Smartphones serve as a primary tool for accessing disaster-related information, often shared through social media and messaging platforms that enable rapid dissemination (Fadmastuti, 2019). However, rural youth still face barriers such as limited internet connectivity, inadequate access to digital devices, and lower awareness of disaster risks (Kusmulyono, 2023).

The shift from basic phones to smartphones has not necessarily bridged this divide, particularly in relation to accessing credible information through official disaster-related applications, such as Info BMKG and InaRISK Personal app. These gaps highlight the importance of examining factors influencing online information-seeking behaviors in rural settings, where vulnerability is often exacerbated by limited digital access (Kusmulyono, 2023).

Furthermore, previous research has focused primarily on this population of youth. It concluded that youth in a critical stage of exploration and development and recognized as key actors whose engagement is vital for building community resilience within the Disaster Risk Reduction (DRR) framework (Peek et al., 2016). Findings show that youth involvement in risk communication has the potential to have a positive impact on DRR (Cumiskey et al., 2015; Cox et al., 2019; Prastyawati et al., 2024). Their familiarity with digital platforms also makes them an important group for examining online disaster information-seeking behavior.

Although several models and theories have been developed to explain information-seeking behavior, including the Extended Parallel Process Model (Witte, 1992), the Comprehensive Model of Information Seeking (Johnson & Meischke, 1993), the Health Information Model (Longo et al., 2001), and the Theory of Motivated Information Management (Afifi & Weiner, 2006), none specifically address how risk-information seeking behavior unfolds in the context of disaster risk. The Risk Information Seeking and Processing (RISP) model, developed by Griffin, Dunwoody, & Neuwirth (1999), offers a structured framework for empirical research by clearly defining constructions and establishing testable, directional relationships. Its inclusion of psychological and sociocultural variables enhances its relevance to complex social issues like disasters. As a result, the RISP model is widely adopted as a theoretical foundation in studies on disaster preparedness and risk-related information seeking (e.g., Yang et al., 2014; S. Li et al., 2017; Trinh & Jensen, 2025).

The RISP Model asserts that deliberate information seeking and processing foster more stable beliefs, attitudes, and behaviors toward risk. The Risk Information Seeking and Processing (RISP) model integrates key elements from the Heuristic-Systematic Model (HSM) by Eagle and Chaiken in 1993 (see Moskowitz et al., 1995) and the Reasoned Action Approach (RAA) by Fishbein & Ajzen (2010).

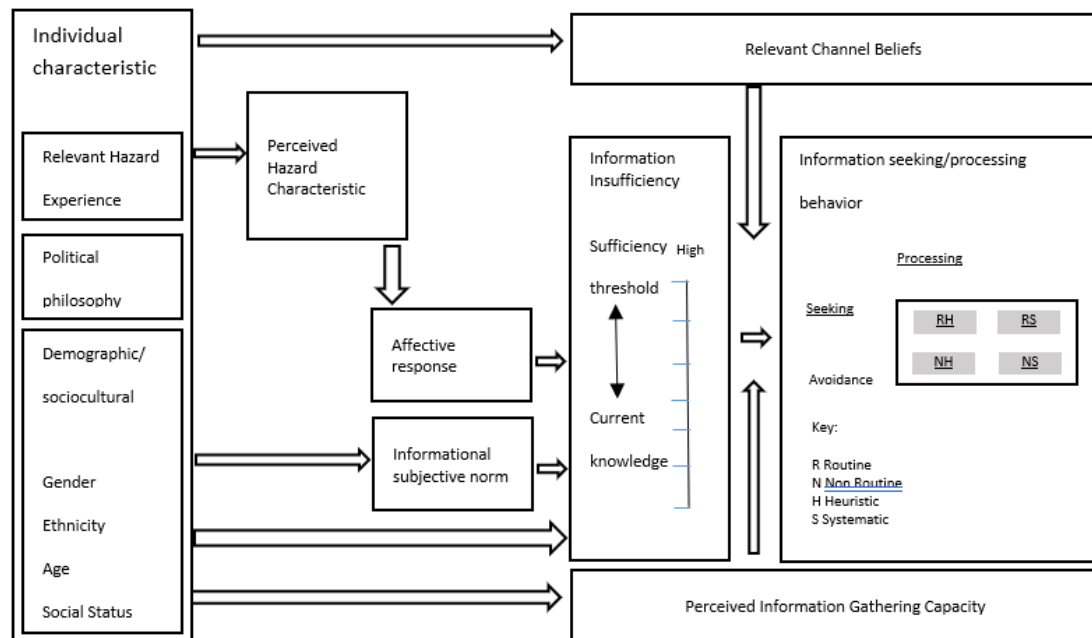


Figure 1. RISP Model by Griffin, et al. (1999)

Building on the HSM framework, the informational component of RISP emphasizes the roles of information insufficiency, risk perception, affective responses, informational subjective norms, relevant channel beliefs (RCB), and perceived information-gathering capacity (PIGC). Meanwhile, the prevention component is informed by RAA, which emphasizes that preventive behaviors are shaped, both directly and indirectly, by these informational factors, as well as by attitudes, norms, behavioral control, and intentions. Additionally, the model considers individual characteristics such as hazard-related experiences, political ideology, and sociodemographic factors, including gender, ethnicity, age, and social status. In essence, the RISP model aims to predict and explain both the ways individuals seek and process risk information, as well as how this process influences their risk prevention behaviors.

According to the Risk Information Seeking and Processing (RISP) model, the process of seeking risk-related information is shaped by the dynamic interaction of multiple factors, including (1) intention to seek risk information, (2) perceived characteristics of the hazard, (3) affective responses, (4) informational subjective norms, (5) perceived information-gathering capacity, and (6) behavioral beliefs, alongside individual characteristics.

The RISP model proposes that information seeking is motivated by the need to reduce the gap between an individual's current knowledge and their desired level of understanding about a risk. While it is widely known that information insufficiency is associated positively with risk information seeking (Armstrong et al., 2021), results indicate that along with information needs and current knowledge (Hwang & Jeong, 2016), risk perception is predictors of intentions to seek information. The RISP model suggests that cognitive and affective appraisals of risk heighten perceptions of information insufficiency, thereby promoting more active information seeking. These finding consistent in high (Maduz et al., 2019) and low (Teo

et al., 2018) socio-economic background, in west and east context (Yang et al., 2014). Based on this, we first hypothesize that perceived hazard characteristic positively correlates with information insufficiency (H_{1a}) and disaster risk-information seeking intention (H_{1b}). Additionally, we propose that perceived hazard characteristics serve as a predictor of disaster risk-information seeking intention in this context (H_{1c}).

In addition to perceived hazard characteristic, risk perception in RISP Model term, prior studies (Yang et al., 2014; Lai, 2022; Austin et al., 2023) have emphasized the significant role of affective responses in shaping information-seeking behavior. Yang et al. (2014) found that negative affect is positively linked to both information insufficiency and the seeking intention, indicating that heightened negative emotions tend to increase individuals' sense of informational inadequacy and, consequently, their motivation to search for relevant information. In a study involving participants from areas affected by Hurricane Florence in the United States, Austin et al. (2023) demonstrated that negative emotional responses mediated the relationship between disaster threat perception and information-seeking behavior. Additionally, Yang & Kahlor (2013) highlight that positive affect tends to drive information avoidance, whereas negative affect more strongly motivates information seeking related to climate change. Negative response such as anxiety and fear consistently predicted information seeking in health risk-information seeking context (So et al., 2019). Thus, we hypothesize that negative affect is positively associated with both perceived hazard characteristics (H_{2a}) and disaster risk information seeking intention (H_{2b}). Furthermore, affective response functions as predictor of disaster risk information seeking intention (H_{2c}).

An increasing number of studies have examined how social factors, particularly subjective informational norms (perceived expectations to stay informed in RISP Model terms), influence information-seeking behavior. Yang et al. (2014) demonstrated a positive association between informational subjective norms and information sufficiency regarding climate change among both Chinese and American samples. In light of this, we propose that informational subjective norms will be positively associated with information insufficiency (H_{3a}). Meldrum et al. (2021) demonstrated the effectiveness of incorporating social norms into disaster communication strategies; by including information about the risk to neighboring homes, their intervention led to a 6% increase in wildfire risk information-seeking among U.S. homeowners. A meta-analysis studies concluded that informational subjective norm exerts the strong influence on disaster risk information-seeking (Liu et al., 2022). In the Indonesian context, Koto et al. (2024) found that, despite facing significant disaster risks, communities in Aceh tend to engage in passive information-seeking, relying heavily on close social networks, such as family and local leaders, as trusted and readily accessible sources of risk information. Informational subjective norms may affect information insufficiency due to impression management motives, as individuals tend to seek socially acceptable attitudinal positions (Yang et al., 2014), especially in highly collective society. We tested this proposition by hypothesizing that informational subjective norm function as predictors of disaster risk-information intention (H_{3b}).

Informed by the TPB's perceived behavioral control concept (Fishbein & Ajzen, 2010), the RISP model posits that perceived information-gathering capacity moderates the link between information insufficiency and information-seeking behavior. In other words,

individuals require both motivation and the perceived efficacy to effectively acquire information. However, recent studies indicate that perceived information-gathering capacity exerts an independent influence on risk information-seeking behavior (Hwang & Jeong 2020; Yang & Zhuang, 2020). Based on this, we further examine whether perceived information-gathering capacity is associated with information insufficiency (H_{4a}) and disaster risk information-seeking intention (H_{4b}).

Among other components of the RISP Model, the behavioral beliefs construct has undergone several reconceptualization. Initially, it centered on individuals' perceptions of the trustworthiness, accessibility, and usefulness of specific information channels (Griffin, et al., 2011). However, recent developments suggest a shift from focusing on specific information channels toward a more holistic view of information seeking, emphasizing perceived outcomes and attributes such as the usefulness and productivity of seeking risk-related information. Yang et al. (2014) and Zhou & Roberto (2022) found that individuals with more favorable attitudes toward seeking information on climate change risks exhibited stronger intentions to seek information. Building on this limited evidence, we hypothesize that behavioral beliefs are positively linked to disaster risk-information seeking intention (H_5).

Demographic factors such as gender, age, education, disaster, and socio-economic status also play a critical role (Teo et al., 2018; Rivera, 2021) in disaster-risk information seeking behavior. Women often prefer interpersonal sources, while men rely more on formal channels or social media (Rahmi & Joho, 2021). Education affects how people perceive and process risk, and communities with more educated women are generally better prepared (Menard et al., 2011; Muttarak & Pothisiri, 2013). Older, educated women are also more proactive, whereas those from lower socio-economic groups face more barriers in accessing risk information (Cuesta et al., 2022). Prior disaster experience enhances perceived capacity to gather information and strengthens risk perception, both of which increase drives to seek disaster risk-information (Chan et al., 2014; Fischer et al., 2022). Prior disaster experience improves both information-gathering confidence and risk awareness, leading to greater information-seeking (Rahmi & Joho, 2021). In this study, we assume similar education, socio-economic background, and disaster experience among coastal youth. Thus, we focus on gender as a key factor, hypothesizing that gender contributes to variability in risk information-seeking intention as a random intercept (H_6).

This study focuses on the coastal village, Cikahuripan, located in Cisolok Subdistrict, Sukabumi Regency, West Java. The area was chosen due to its high vulnerability to natural disasters. According to the National Disaster Risk Index Report (BNPB, 2024), Sukabumi Regency ranks 36th out of 502 districts/cities nationwide and holds the second-highest disaster risk in West Java Province, with a score of 178.12—categorized as high risk. This figure exceeds the provincial average of 123.16, which falls into the moderate risk category. The region faces multiple hazards including flash floods, extreme weather, earthquakes, forest and land fires, drought, landslides, tsunamis, and volcanic eruptions (e.g., Mount Gede, Perbakti, and Salak) (BNPB, 2021). Moreover, many rural residents in the area rely heavily on natural resources and climate-sensitive livelihoods, rendering them especially vulnerable to the adverse effects of disasters, particularly climate-related ones such as reduced subjective well-being (Rahman et al., 2022; Kismulyono, 2023) especially climate-related disaster. Given the

region's exposure to multi-hazards and its socio-economic vulnerabilities, it is essential to investigate the dynamics of online information-seeking behavior in Cikahuripan Village to gain insights potential strategies for enhancing disaster preparedness Indonesia.

METHOD

This study adopts a quantitative approach to investigate the factors influencing young people's intentions to seek disaster risk information in Cikahuripan Village, Cisolok District, Sukabumi Regency, West Java. The survey instrument was designed based on the Risk Information Seeking and Processing (RISP) Model introduced by (Griffin et al., 1999).

This study focuses on individuals aged 18 to 25 who actively use the internet and smartphones for daily communication and information-seeking. An a priori power analysis was performed using G*Power 3.1.9.7 (Erdfelder et al., 2009) to estimate the minimum sample size required for linear multiple regression with a fixed model and a single predictor. Assuming a medium effect size ($f^2 = 0.15$, $\beta = 0.80$, $p < 0.05$), a power level of 0.80, and a significance level of $p < 0.05$, the analysis determined that at least 55 participants were needed. Ultimately, 110 youth consented to and completed the online survey.

To minimize careless responding, which is common in online surveys (Ward & Meade, 2022) participants were screened using three attention-check items embedded throughout the questionnaire (e.g., "Please select 15 as your answer," "5 + 7 =", and "9 + 2 ="). Only participants who answered all three items correctly were retained for analysis. As a result, 12 participants were excluded, yielding a final sample of 98 respondents.

At the initial stage of the study, we conducted site visits and obtained formal permission from key stakeholders and the local government of Cikahuripan Village, Sukabumi Regency, West Java. A back-translation and readability test were conducted for the research instruments, which comprised a questionnaire designed to measure the determinants of disaster risk information-seeking behavior based on the RISP Model. This process ensured the accuracy and cultural relevance of the translated items for use in the local context. Ethical approval was also secured from the Ethics Committee of the Faculty of Psychology, Universitas Indonesia (No : 053/FPsi.Komite Etik/PDP.04.00/2025) to ensure the research met all ethical standards. Five enumerators recruited from local youth organization, later involved in distributing the online survey and assisting the participant to fill the survey and followed by data management procedures and statistical analysis.

This study employed a questionnaire adapted from Yang, Kahlor, and Li (2014) designed to assess the determinants of disaster risk information-seeking behavior, grounded in RISP Model. The instrument consists of 33 items measuring constructs: risk information-seeking intention (4 items), information insufficiency (2 items), perceived hazard characteristics (12 items), affective responses (4 items), subjective norms (4 items), perceived information-gathering capacity (3 items), and behavioural beliefs toward information seeking (4 items). The 6-point Likert scale was used for most determinants, while information insufficiency was assessed on a 0–100 points. The Indonesian version of the instrument showed satisfactory internal consistency ($\alpha = 0.78 - 0.87$). Table 1 presents sample items and the corresponding reliability coefficients for each determinant.

Table 1. Sample items and RISP Model determinants reliability

Variables	Example of item	Response set	α
Risk-information seeking intention	I intend to look for information about disasters in the near future.	Scale 1-6	0.86
Information insufficiency	Estimate how much knowledge you think you need on disaster-related topic?	Point 1 – 100	-
Perceived hazard characteristic	My standard of living will decrease as result of disaster. I am concerned about the impact of disaster on my local community. To me, the topic related to disaster is ... Not at all important ---- very important	Scale 1-6	0.87
Affective responses	I have negative feelings about disaster.	Scale 1-6	0.78
Norm	Most people who are important to me think that I should seek information about disaster. People in my life whose opinions I value seek information about disaster.	Scale 1-6	0.87
Perceived information gathering capacity	I have a hard time understanding information about disaster.	Scale 1-6	0.87
Behavioral beliefs	Indicate the degree to which you feel that seeking information about disaster is... Not useful ----- useful	Scale 1-6	0.87

Analytic plan

All statistical analyses were conducted using R software (R Core Team, 2024). After descriptive statistics were described, a Pearson correlation was performed using the *cor.test()* function to determine any association between determinants. Subsequently, multiple regression analysis was conducted to obtain models predicting risk information-seeking behavioral intention using the *lm()* function. In addition, to account for potential cluster effects—specifically the influence of participants' gender—a linear mixed-effects model was estimated using the *lmer()* function, where gender was included as a random intercept. This approach allowed for more accurate estimation of fixed effects by considering variability across gender groups.

RESULT AND DISCUSSION

Participant Characteristics

A total of 98 youth participants were retained for the final analysis ($M_{age} = 19.96$, $SD = 2.96$), comprising 55.1% females and 44.9% males. Table 2 presents the detailed demographic characteristics of the participants.

Table 2. Demographic Characteristics of Participants (N = 98)

Characteristic	n	%
Gender		
Female	54	55.1
Male	44	44.9
Subvillage		
Subvillage 1	50	51.0
Subvillage 2	24	24.5
Subvillage 3	16	16.3

Subvillage 4	8	8.2
Occupational Status		
Student	47	47.9
Unemployed	22	22.9
Informal/Flexible work	11	11.5
Homemaker	8	8.3
Entrepreneur	5	5.2
Fisher	2	2.1
Private/State employee	1	1.0
Farmer	1	1.0
Education Level		
Senior High School	83	84.7
Junior High School	9	9.2
Bachelor's Degree	4	4.1
Master's Degree	1	1.0

Descriptive statistics

A total of 98 youth participants were retained for the final analysis ($M_{age} = 19.96$, $SD = 2.96$), comprising 55.1% females and 45.9% males. Participants were distributed across Subvillage 1 (51%), Subvillage 2 (24.5%), Subvillage 3 (16.3%), and Subvillage 4 (8.2%). In terms of occupational status, nearly half of the participants identified as students (47.9%), while 22.9% reported being unemployed. A smaller proportion were engaged in informal or flexible work such as freelance labor, ojek (motorcycle taxi), or shopkeeping (11.5%). Others identified as homemakers (8.3%), entrepreneurs (5.2%), fishers (2.1%), private or state-owned company employees (1%), and farmers (1%). This distribution reflects the predominance of youth in transitional or non-formal employment settings within the community. The majority of participants had completed senior high school or its equivalent (84.7%), followed by junior high school graduates (9.2%). A smaller proportion had obtained a bachelor's degree (4.1%), while only 1% held a master's degree.

On a 1–6 scale, youth in Cikahuripan Village exhibited a moderate level of intention to seek disaster risk information ($M = 3.75$, $SD = 1.12$). A substantial disaster risk information gap was also evident, as reflected by a negative mean difference between participants' current knowledge and their perceived information need ($M = -14.56$, $SD = 22.95$). Furthermore, participants rated the process of accessing disaster risk information as moderately challenging ($M = 3.77$, $SD = 1.26$). Participants reported relatively high levels of perceived hazard characteristics ($M = 4.58$, $SD = 0.85$) and affective response ($M = 4.96$, $SD = 0.91$). Descriptive analysis also indicated the moderate presence of supportive social norms regarding disaster information-seeking ($M = 3.77$, $SD = 1.26$) and strong beliefs in the usefulness of such behavior ($M = 5.24$, $SD = 0.90$).

Table 3. Correlation with risk information-seeking behavioral intention

Measure	1	2	3	4	5	6
1. Risk information-seeking intention	–					
2. Information insufficiency	0.09	–				
3. Perceived hazard characteristic	0.32***	0	–			
4. Affective responses	0.25*	0.09	0.66***	–		
5. Informational subjective norms	0.41***	0.1	0.21*	0.37***	–	
6. Perceived information gathering capacity	-0.07	-0.08	0.06	0.04	-0.38***	–
7. Behavioral beliefs	0.24*	-0.08	0.62***	0.57***	0.17	0.12

* $p < .05$. *** $p < .001$

Pearson correlation analysis revealed significant positive associations between the intention to seek disaster risk information and both perceived hazard characteristics ($r(96) = .32, p < .001$) and informational subjective norms ($r(96) = .41, p < .001$). These findings lend support to Hypothesis H_{1b} and justify continued exploration of H_{1c}. Specifically, individuals who viewed themselves as more vulnerable to disaster threats and those who perceived stronger social expectations to seek information exhibited a higher intention to do so. In contrast, Hypothesis H_{1a} was not supported. Additionally, the data did not support Hypothesis H_{3a}, as informational subjective norms were not significantly associated with information insufficiency ($r(96) = .10, p > .05$). However, informational subjective norms showed a modest correlation with perceived hazard characteristics and a strong positive correlation with affective response ($r(96) = .37, p < .001$), suggesting further examination of H_{3b} is warranted.

The findings point to a robust emotional-cognitive pathway: perceived hazard characteristics were strongly associated with affective response ($r(96) = .66, p < .001$) and moderately related to intention to seek information ($r(96) = .25, p < .05$). These results support the assumption that individuals who experience stronger negative emotions about disaster risk also feel more vulnerable (H_{2a}) and are more likely to seek information (H_{2b}). Moreover, affective responses were strongly linked to behavioral beliefs about the value of information seeking ($r(96) = .57, p < .001$), and behavioral beliefs were significantly associated with perceived hazard characteristics ($r(96) = .62, p < .001$). Affective response ($r(96) = .25, p < .05$) and behavioral belief ($r(96) = .24, p < .05$) also demonstrated significant and moderate correlations with information-seeking intention. Thus, these results underscore the need for further investigation into affective response (H_{2c}) and behavioral belief (H₅) as key predictors of disaster risk information-seeking intentions.

Finally, no significant relationship was found between perceived information-gathering capacity and information insufficiency ($r(96) = -0.08, p > .05$) or disaster risk information-seeking intention ($r(96) = -0.07, p > .05$), thereby providing no support for Hypotheses H_{4a} and H_{4b}.

Predicting the youth's risk information-seeking intention

To evaluate the extent to which the correlating determinants: perceived hazard characteristics, affective response, informational subjective norms, and behavioral beliefs predict risk information-seeking intention, a multiple linear regression analysis was conducted.

The overall model was statistically significant $F(4, 93) = 7.17, p < .001$, indicating that the set of predictors reliably explained variation in intention to seek risk information. The model explained about 23.6% of the variance in information-seeking intention ($R^2 = 0.236$, adjusted $R^2 = 0.203$).

Among the predictors, perceived hazard characteristics ($\beta = 0.114, p = .047$) and informational subjective norms ($\beta = 0.344, p < .001$) emerged as significant positive predictors of intention. This indicates that individuals with higher perceived risk and stronger normative pressure exhibited greater intention to seek risk-related information. In contrast, affective response ($\beta = -0.128, p = .436$) and behavioral beliefs ($\beta = 0.090, p = .551$) did not significantly predict intention in this model. Accordingly, the findings support Hypotheses H_{1c} and H_{3b} , but do not support H_{2c} .

Table 4. Comparison of Multiple Regression and Regression with Gender as a Random Effect in Predicting Risk Information-Seeking Intention

Variables	Fixed effect	With random effect of gender
(Intercept)	$\beta = 4.190, SE = 2.71$	$\beta = 4.997, SE = 2.81$
Perceived hazard characteristic	$\beta = 0.114, SE = 0.057^*$	$\beta = 0.115, SE = 0.056^*$
Affective responses	$\beta = -0.128, SE = 0.164$	$\beta = -0.168, SE = 0.164$
Norm	$\beta = 0.344, SE = 0.087^{***}$	$\beta = 0.373, SE = 0.088^{***}$
Behavioral beliefs	$\beta = 0.090, SE = 0.150$	$\beta = 0.065, SE = 0.149$
R^2	0.236 (Adjusted $R^2 = 0.203$)	0.225 (Con. $R^2 = 0.267$)

* $p < .05$. *** $p < .001$

Hypothesis H_6 was tested by estimating a linear mixed-effects model, specifying gender as a random intercept. Perceived hazard characteristics, affective response, informational subjective norms, and behavioral beliefs were included as fixed effects to account for their influence on risk information-seeking intention. The model revealed that perceived hazard characteristics significantly predicted intention, $\beta = 0.115, SE = 0.056, t(92.00) = 2.05, p = .043$, and informational subjective norms also showed a strong positive association, $\beta = 0.373, SE = 0.088, t(92.41) = 4.23, p < .001$. In contrast, affective response ($\beta = -0.168, SE = 0.164, t(93.00) = -1.03, p = .306$) and behavioral beliefs ($\beta = 0.065, SE = 0.149, t(92.71) = 0.44, p = .664$) remained not statistically significant.

The inclusion of gender as a random intercept led to a modest improvement in model fit, with the marginal R^2 increasing from 0.225 to a conditional R^2 of 0.267. However, the variance attributable to gender ($\sigma^2 = 0.888$) was relatively small compared to the residual variance ($\sigma^2 = 15.631$), indicating that gender accounted for only a limited portion of variability in intention. Therefore, Hypothesis H_6 received limited empirical support. The coefficients, standard errors for the are presented in Table 4.

This study offers an important contribution by illustrating how youth in a coastal rural village in Indonesia engage in online disaster risk-information seeking, an area that remains largely underexplored. Although the RISP model is a well-established framework for explaining risk information-seeking behavior across various domains, disaster risk-information seeking among rural youth was found to be strongly driven by their perceived vulnerability to disaster impacts and by the social expectations they perceive from significant others. Specifically, the greater their sense of susceptibility to disaster, the stronger their intention to

seek information. Likewise, intention increases when individuals believe that someone important to them expects them to seek such information. These findings are consistent with previous studies highlighting risk perception (Yang et al., 2014; Teo et al., 2018) and social norms (Yang et al., 2014; Meldrum et al., 2021; Liu et al., 2022) as reliable predictors of risk information-seeking intention. Whereas other theoretical predictors played a minimal and statistically non-significant role. For instance, previous research has suggested that a greater discrepancy between current knowledge and desired knowledge (information insufficiency) should prompt individuals to seek additional risk-related information (Zhou & Roberto, 2022). Yet, in this context, although information insufficiency was present among rural youth, it did not significantly predict their intention to seek disaster risk information. A similar pattern was observed in the Aceh context, where communities with high disaster exposure demonstrated relatively passive disaster risk information-seeking behavior (Koto et al., 2024). This result may be explained by the argument that the information sufficiency principle, which relies on cost-benefit analysis, fails to consider that acquiring more information does not always enhance decision-making, particularly in the digital age. In fact, excessive knowledge may lead to cognitive dissonance (Festinger, 1962) or heightened fear (Witte, 1992) particularly among individuals with limited confidence in their judgment. Additionally, that coastal areas experience multiple, interconnected risks (erosion, flooding, and long-term climate change impacts), these risks may overwhelm traditional information processing frameworks, particularly among youth who may lack the experience of contextualizing multiple risk scenarios simultaneously (Clark-Ginsberg, 2015). Also, shared experiences within tight-knit communities (Chandonnet, 2021) and trust in intergenerational-traditional warning systems surpassed formal risk communication channels (Gumasing & Sobrevilla, 2023; Jones & Lucas, 2023) reduced perceived need for individual risk-information seeking.

Contrary to previous studies suggesting that negative emotions promote risk information-seeking, while positive affect is associated with information avoidance (Yang & Kahlor, 2013; So et al., 2019), this study found that affective response was not a significant predictor of disaster risk information-seeking intention among youth. This result may reflect a tendency among youth to use mental shortcuts rather than engage in systematic information processing. Emotional responses likely led to cognitive overload, making them less motivated to seek in-depth information. Maliki et al. (2024) found that, youth showed high satisfaction (81.8%) with superficial disaster updates on social media.

Despite youth holding strong beliefs about the usefulness and benefits of risk information seeking, the findings show that behavioral beliefs did not significantly predict disaster risk information-seeking intention. This finding contrasts with previous studies, indicating that beliefs, perceptions, or attitudes regarding the benefits of risk information seeking typically encourage individuals to engage in information-seeking behaviors (Yang et al., 2014; Zhou & Roberto, 2022; Liu et al., 2023). A possible explanation is that, despite their strong beliefs in the benefits of seeking disaster risk information, youth perceive considerable difficulties and challenges in the information-gathering process, thus creating efficacy barrier (Mokry, 2019). Similarly, Zhou & Roberto (2022) identified a belief-action gap, where 67% of individuals reported feeling incapable of translating their acknowledged benefits into action due to perceived efficacy constraints.

This study makes two notable contributions to risk communication literature. First, it systematically applied theory-based measures and successfully captured all RISP constructs for information seeking, which is often missing in previous research (e.g., Griffin et al. (2004) for information insufficiency, Hwang & Jeong (2020) for perceived hazard characteristic, and Yang & Kahlor (2013) for affective response). Thus, it offers a more comprehensive understanding of risk information-seeking behavior among youth in Indonesian coastal communities. Second, this study explored a specific context, focusing on disaster risk information-seeking behaviors among youth residing in one of the most disaster-prone regions of Indonesia, the southern coast of Java Island (BNPB, 2024). The village is situated along a bay that lies directly on the Ring of Fire, an area highly susceptible to earthquakes and tsunamis, compounded by a densely populated, expansive lowland topography (BNPB, 2021). Therefore, the topic of this study is highly relevant to Indonesia's national priorities, as the country ranks as the second highest in the global disaster risk index (IFHV, 2024). The findings offer a valuable baseline for the development of risk communication programs and interventions. The results notably show that subjective informational norms were the strongest predictor of disaster risk information-seeking intentions among youth in this context. This suggests that risk communication strategies should target the normative dimensions within communities. For example, Taylor et al. (2015) demonstrated that message framing, comparing the smoking risks of individuals to those of others significantly improved health risk information-seeking behavior among college smokers. Similarly, Meldrum et al. (2021) found that disaster-related message framing, which compared individuals' property risks with those of others at risk from wildfires, effectively enhanced disaster risk information-seeking behaviors.

As with any investigation some considerations should be acknowledged. One concern is the sample size. Although the sample size was small, it was established through priori power analysis, ensuring adequate statistical power to detect true effects within the population. Another consideration relates to the type of statistical analysis employed. Due to the sample size, this study was limited to predictive analyses using regression models and could not extend to more complex causal modeling, such as structural equation modeling, which would offer a deeper exploration of the relationships among variables. Nevertheless, the results provide important initial insights into the patterns of information-seeking behavior within this specific context. While caution is warranted in generalizing these findings to broader populations, the study lays a critical foundation for future research and the development of more targeted risk communication interventions.

CONCLUSION

The study concludes that the Risk Information Seeking and Processing (RISP) model offers a valuable but partial framework for explaining disaster risk information-seeking intentions among youth in a coastal Indonesian community, with perceived hazard characteristics and informational subjective norms emerging as significant predictors of such intentions. These findings suggest that cognitive perceptions of disaster vulnerability and social expectations play a stronger role than emotional responses, behavioral beliefs, or information insufficiency in motivating online risk information seeking. The results highlight the importance of social influence and risk perception in designing targeted communication

strategies to strengthen youth disaster preparedness. Future research should employ larger and more diverse samples and use advanced methods such as Structural Equation Modeling (SEM) to examine direct and indirect relationships more comprehensively. Incorporating qualitative approaches like interviews or focus group discussions, and extending comparative analyses across rural–urban and age-group contexts in Indonesia, would deepen understanding of the nuanced social and cultural mechanisms that shape information-seeking behavior.

REFERENCES

- Armstrong, C. L., Cain, J. A., & Hou, J. (2021). Ready for disaster: information seeking, media influence, and disaster preparation for severe weather outbreaks. *Atlantic Journal of Communication*, 29(3), 121–135. <https://doi.org/10.1080/15456870.2020.1731512>
- Austin, L., Kim, S., & Saffer, A. J. (2023). Emotion as a predictor of crisis communicative behaviors: examining information seeking and sharing during Hurricane Florence*. *Journal of Applied Communication Research*, 51(5), 559–578. <https://doi.org/10.1080/00909882.2023.2177121>
- BNPB. (2021). *Kajian Risiko Bencana Nasional Provinsi Jawa Barat 2022-2026*.
- BNPB. (2024). *Indeks Risiko Bencana Indonesia Tahun 2023*.
- Chan, E. Y. Y., Kim, J. H., Lin, C., Cheung, E. Y. L., & Lee, P. P. Y. (2014). Is previous disaster experience a good predictor for disaster preparedness in extreme poverty households in remote muslim minority based community in China? *Journal of Immigrant and Minority Health*, 16(3), 466–472. <https://doi.org/10.1007/s10903-012-9761-9>
- Chandonnet, A. (2021). *Emergency Resilience in Culturally and Linguistically Diverse Communities Challenges and Opportunities* redcross.org.au.
- Clark-Ginsberg, A. (2015). *Concern Disaster Risk Reduction-Coastal Areas*.
- Cox, R. S., Hill, T. T., Plush, T., Heykoop, C., & Tremblay, C. (2019). More than a checkbox: engaging youth in disaster risk reduction and resilience in Canada. *Natural Hazards*, 98(1), 213–227. <https://doi.org/10.1007/s11069-018-3509-3>
- Cuesta, A., Daniel Alvear, ;, Carnevale, A., & Amon, ; Francine. (2022). Gender and public perception of disasters: A multiple hazards exploratory study of EU citizens. <https://doi.org/http://dx.doi.org/10.2139/ssrn.4019363>
- Cumiskey, L., Hoang, T., Suzuki, S., Pettigrew, C., & Herrgård, M. M. (2015). Youth Participation at the Third UN World Conference on Disaster Risk Reduction. *International Journal of Disaster Risk Science*, 6(2), 150–163. <https://doi.org/10.1007/s13753-015-0054-5>
- DEMİRBILEK, Ö., & UZMAN, E. (2023). Fatalistic Tendency as a Predict of Disaster Preparedness Beliefs in University Students. *Afet ve Risk Dergisi*, 6(3), 942–960. <https://doi.org/10.35341/afet.1249312>
- Fadmastuti, M. (2019). *Selfies Save Lives (Digital Strategies for Flood Response in Indonesia)*. IOP Conference Series: Earth and Environmental Science, 338(1). <https://doi.org/10.1088/1755-1315/338/1/012040>
- Fischer, L. M., Lawson, C., & Ruth, T. K. (2022). Addressing the Role of Prior Experience in the Development of Risk Perceptions, Information Seeking and Processing Behaviors

- During Natural Disasters. In M. J. O. H. Dan O'Hair (Ed.), *Communication and Catastrophic Events: Strategic Risk and Crisis Management* (1st ed.). John Wiley & Sons, Inc. <https://doi.org/doi/10.1002/9781119751847.ch3>
- Fishbein, Martin., & Ajzen, Icek. (2010). *Predicting and changing behavior: the reasoned action approach*. Psychology Press, Taylor & Francis Group.
- Gumasing, M. J. J., & Sobrevilla, M. D. M. (2023). Determining Factors Affecting the Protective Behavior of Filipinos in Urban Areas for Natural Calamities Using an Integration of Protection Motivation Theory, Theory of Planned Behavior, and Ergonomic Appraisal: A Sustainable Disaster Preparedness Approach. *Sustainability* (Switzerland), 15(8). <https://doi.org/10.3390/su15086427>
- Hwang, Y., & Jeong, S. H. (2016). Information Insufficiency and Information Seeking: An Experiment. *Science Communication*, 38(6), 679–698. <https://doi.org/10.1177/1075547016673200>
- Hwang, Y., & Jeong, S. H. (2020). A Channel-Specific Analysis of the Risk Information Seeking and Processing (RISP) Model: The Role of Relevant Channel Beliefs and Perceived Information Gathering Capacity. *Science Communication*, 42(3), 279–312. <https://doi.org/10.1177/1075547020926612>
- IFHV. (2024). *WorldRiskReport 2024 Focus: Multiple Crises*.
- Jones, C. A., & Lucas, C. (2023). 'Listen to me!': Young people's experiences of talking about emotional impacts of climate change. *Global Environmental Change*, 83. <https://doi.org/10.1016/j.gloenvcha.2023.102744>
- Kirschenbaum, A. (Avi), Rapaport, C., & Canetti, D. (2017). The impact of information sources on earthquake preparedness. *International Journal of Disaster Risk Reduction*, 21, 99–109. <https://doi.org/10.1016/j.ijdrr.2016.10.018>
- Koto, M., Rosemary, R., Rahman, A., Muharman, N., & Nisa, U. (2024). Selective Information Acquisition in Disaster Scenarios: A Study on Health Information Behavior in Aceh. *International Journal of Disaster Management*, 7(1), 29–44. <https://doi.org/10.24815/ijdm.v1i1.38088>
- Kusmulyono, M. S. (2023). Collaborative Youth Action to Alleviate Digital Inequality in Rural Areas in Indonesia. In M. N. Almunawar, P. O. de Pablos, & M. Anshari (Eds.), *SUSTAINABLE DEVELOPMENT AND THE DIGITAL ECONOMY: human-centricity* (1st ed., pp. 80–103). ROUTLEDGE.
- Lai, C. H. (2022). Examining the paths of influence between individual motivators, information behaviors, and outcomes in disaster risk reduction. *International Journal of Disaster Risk Reduction*, 71. <https://doi.org/10.1016/j.ijdrr.2022.102826>
- Leelawat, N., Muhari, A., Srivichai, M., Suppasri, A., Imamura, F., & Bricker, J. D. (2017). Preference for Information During Flood Disasters: A Study of Thailand and Indonesia. In *Sustainable Future for Human Security: Society, Cities and Governance* (pp. 335–349). Springer Singapore. <https://doi.org/10.1007/978-981-10-5433-4>
- Levy, L., & Bodas, M. (2024). Risk messaging style and its effect on public preparedness for earthquakes: longitudinal intervention-based study: Fear appeal versus empowerment. *Journal of Public Health Policy*. <https://doi.org/10.1057/s41271-024-00534-w>
- Liu, H., Gong, L., Wang, C., Gao, Y., Guo, Y., Yi, M., Jiang, H., Wu, X., & Hu, D. (2023). How information processing and risk/benefit perception affect COVID-19 vaccination

- intention of users in online health communities. *Front.Public Health*, 1043485(11), 1–10. <https://doi.org/doi:10.3389/fpubh.2023.1043485>
- Liu, Z., Yang, J. Z., & Feeley, T. H. (2022). Reduced Risk Information Seeking Model (RISK): A Meta-Analysis. *Science Communication*, 44(6), 787–813. <https://doi.org/10.1177/10755470221144453>
- Maduz, L. ;, Prior, T. ;, Roth, F. ;, & Käser, M. (2019). ETH Library Individual Disaster Preparedness: Explaining disaster-related Information Seeking and Preparedness Behavior in Switzerland. <https://doi.org/10.3929/ethz-b-000356695>
- Maliki, M., Bolong, J., & Ghazali, A. H. A. (2024). Youth on Social Media: Unveiling Natural Disasters Information Seeking Factors. *International Journal of Academic Research in Business and Social Sciences*, 14(12). <https://doi.org/10.6007/IJARBSS/v14-i12/24024>
- McColl, K., Debin, M., Souty, C., Guerrisi, C., Turbelin, C., Falchi, A., Bonmarin, I., Paolotti, D., Obi, C., Duggan, J., Moreno, Y., Wisniak, A., Flahault, A., Blanchon, T., Colizza, V., & Raude, J. (2022). Are people optimistically biased about the risk of covid-19 infection? Lessons from the first wave of the pandemic in europe. *International Journal of Environmental Research and Public Health*, 19(1). <https://doi.org/10.3390/ijerph19010436>
- Meldrum, J. R., Brenkert-Smith, H., Champ, P. A., Gomez, J., Byerly, H., Falk, L., & Barth, C. M. (2021). Would you like to know more? The effect of personalized wildfire risk information and social comparisons on information-seeking behavior in the wildland–urban interface. *Natural Hazards*, 106(3), 2139–2161. <https://doi.org/10.1007/s11069-021-04534-x>
- Mokry, M. M. (2019). Analyzing Risk-Related Information Seeking Behavioral Intention and Risk Perception of Wildfires: The High Park Fire Burn Area. Colorado State University.
- Murphy, E. R. (2013). Information Seeking for Earthquake Preparedness Evaluating the Role of Media in Teaching Residents in Disaster Prone Areas of West Sumatra. *Asian Journal of Environment and Disaster Management*, 5(2), 157. <https://doi.org/10.3850/s1793924013002423>
- Muttarak, R., & Pothisiri, W. (2013). The role of education on disaster preparedness: Case study of 2012 Indian Ocean earthquakes on Thailand’s Andaman coast. *Ecology and Society*, 18(4). <https://doi.org/10.5751/ES-06101-180451>
- Peek, L., Tobin-Gurley, J., Cox, R. S., Scannell, L., Fletcher, S., & Heykoop, C. (2016). Engaging youth in post-disaster research: Lessons learned from a creative methods approach. *Gateways: International Journal of Community Research and Engagement*, 9(1). <https://doi.org/10.5130/ijcre.v9i1.4875>
- Prastyawati, I. Y., Djoar, R. K., Anggarani, A. P. M., & Pinto, A. D. P. (2024). Knowledge, Attitudes, and Experiences of Adolescents on Disaster Preparedness in an Area with a High Disaster Risk Index. *International Journal of Disaster Management*, 7(2), 143–152. <https://doi.org/10.24815/ijdm.v7i2.38227>
- Rahman, M. S., Andriatmoko, N. D., Saeri, M., Subagio, H., Malik, A., Triastono, J., Oelviani, R., Kilmanun, J. C., Silva, H. da, Pesireron, M., Senewe, R. E., & Yusuf, Y. (2022).

- Climate Disasters and Subjective Well-Being among Urban and Rural Residents in Indonesia. *Sustainability* (Switzerland), 14(6). <https://doi.org/10.3390/su14063383>
- Rahmi, & Joho, H. (2021). Demographic Factors in the Disaster-Related Information Seeking Behaviour. In *Proceedings*. <http://www.springer.com/series/7409>
- Rivera, J. D. (2021). Factors Influencing Individual Disaster Preparedness Information Seeking Behavior: Analysis of US Households. *Natural Hazards Review*, 22(4). [https://doi.org/10.1061/\(asce\)nh.1527-6996.0000510](https://doi.org/10.1061/(asce)nh.1527-6996.0000510)
- Setyorini, F. A. (2023). Women and Development: Women's Struggle for Labour Participation in Banten. *Journal of Social Politics and Governance (JSPG)*, 5(2), 82–96. <https://doi.org/10.24076/jspg.v5i2.1339>
- Shah, Z., & Wei, L. (2022). Interpersonal risk communication matters more than media risk communication in its impact on individuals' trust and preventive behaviors during COVID-19. *International Journal of Disaster Risk Reduction*, 82. <https://doi.org/10.1016/j.ijdr.2022.103369>
- Shalihin, R. R. (2024). United by Nation, Divided by Understanding: A Journey Through Indonesia's Diverse Disaster Perspectives. www.habibiecenter.or.id
- So, J., Kuang, K., & Cho, H. (2019). Information Seeking Upon Exposure to Risk Messages: Predictors, Outcomes, and Mediating Roles of Health Information Seeking. *Communication Research*, 46(5), 663–687. <https://doi.org/10.1177/0093650216679536>
- Sun, L., & Liu, X. (2023). Unpacking immediate public behavioral responses to earthquakes: A study focusing on the role of fatalism and fear. *Earthquake Spectra*, 39(4), 2173–2192. <https://doi.org/10.1177/87552930231189701>
- Taylor, M. J., Vlaev, I., Maltby, J., & Brown, G. D. A. (2015). Improving Social Norms Interventions: Rank-Framing Increases Excessive Alcohol Drinkers' Information-Seeking. *Health Psychology*, 34(12), 1200–1203. <https://doi.org/10.1037/hea0000237.supp>
- Tekeli-Yesil, S., Pfeiffer, C., & Tanner, M. (2020). The determinants of information seeking behaviour and paying attention to earthquake-related information. *International Journal of Disaster Risk Reduction*, 49. <https://doi.org/10.1016/j.ijdr.2020.101734>
- Teo, M., Goonetilleke, A., Ahankoo, A., Deilami, K., & Lawie, M. (2018). Disaster awareness and information seeking behaviour among residents from low socio-economic backgrounds. *International Journal of Disaster Risk Reduction*, 31, 1121–1131. <https://doi.org/10.1016/j.ijdr.2018.09.008>
- Tomec, T., & Gričar, S. (2024). Risk language barriers in a globalized world: Insights from female managers from Slovenia. *Strategic Management*, 29(2), 19–31. <https://doi.org/10.5937/straman2300054t>
- Trinh, T. T., & Jensen, O. (2025). Finding out about disaster risk: Global evidence on who seeks information, which sources they use, and whether it makes them better prepared. *International Journal of Disaster Risk Reduction*, 105553. <https://doi.org/10.1016/j.ijdr.2025.105553>
- Wang, Y., Hao, H., & Platt, L. S. (2021). Examining risk and crisis communications of government agencies and stakeholders during early-stages of COVID-19 on Twitter. *Computers in Human Behavior*, 114. <https://doi.org/10.1016/j.chb.2020.106568>

- Ward, M. K., & Meade, A. W. (2022). Annual Review of Psychology Dealing with Careless Responding in Survey Data: Prevention, Identification, and Recommended Best Practices. Downloaded from [Www.Annualreviews.Org](http://www.annualreviews.org). Guest (Guest), 74, 40. <https://doi.org/10.1146/annurev-psych-040422>
- We Are Social. (2024). DIGITAL 2024 INDONESIA.
- Yang, J. Z., & Zhuang, J. (2020). Information Seeking and Information Sharing Related to Hurricane Harvey. *Journalism and Mass Communication Quarterly*, 97(4), 1054–1079. <https://doi.org/10.1177/1077699019887675>
- Yang, Z. J., & Kahlor, L. A. (2013). What, Me Worry? The Role of Affect in Information Seeking and Avoidance. *Science Communication*, 35(2), 189–212. <https://doi.org/10.1177/1075547012441873>
- Yang, Z. J., Kahlor, L. A., & Li, H. (2014a). A United States-China Comparison of Risk Information-Seeking Intentions. *Communication Research*, 41(7), 935–960. <https://doi.org/10.1177/0093650213479795>
- Yang, Z. J., Kahlor, L. A., & Li, H. (2014b). A United States-China Comparison of Risk Information-Seeking Intentions. *Communication Research*, 41(7), 935–960. <https://doi.org/10.1177/0093650213479795>
- Zhou, X., & Roberto, A. J. (2022). An Application of the Risk Information Seeking and Processing Model in Understanding College Students' COVID-19 Vaccination Information Seeking and Behavior. *Science Communication*, 44(4), 446–474. <https://doi.org/10.1177/10755470221120415>