



Research article

The spread of fake news: Disclosure willingness role

Minh T.H. Le

College of Business, University of Economics Ho Chi Minh City (UEH), Vietnam

ARTICLE INFO

Keywords:

Risk perception

Media trust

Trust in celebrity posts in Vietnam and stress

ABSTRACT

The epidemic has had a profound negative impact on individuals worldwide, leading to pervasive anxiety, fear, and mental instability. Exploiting these fears, a significant amount of fake information proliferates and spreads rapidly on social networks. This study explores the factors that cause individuals to believe fake news under stressful and fearful conditions by applying the truth-default theory. Data was collected online in Vietnam, using Smart PLS software to analyze the research model. The findings indicated that risk perception, media trust, trust in celebrity posts, and stress were factors that urge users to believe news posted on social media, and even they actively share this news on their own channels. Disclosure willingness moderated the relationship between adoption fake news and sharing it. Both theoretical and practical implications were discussed.

1. Introduction

Fake information is created with the intention of deceiving or harming another person or organization, or obtaining a financial or political benefit [1]. It can manifest as deceptive marketing, political propaganda, or the circulation of altered content to generate erroneous information, culminating in the spread of false news [2]. Fake news is easily propagated via social media [3]. To meet customers' demands, social media platforms offer a variety of services such as live streaming, online gaming, buying and selling items, and movie broadcasting on occasion [4]. Users can utilize basic features such as communication, chat, moment sharing, and photo-video sharing to make friends, exchange ideas and information, and connect with people from all over the globe [5]. The current concern is the growth of false news due to the rapid expansion of social networks [6].

Media channels exist both online and offline. Online channels include websites, social media (Facebook, Twitter), search engines (Google), online display advertising, email, content, and video marketing [7,8]. Offline channels include television, radio, print media (newspapers, magazines), outdoor advertising (billboards), direct mail, events, sponsorships, and word of mouth. Online platforms like Facebook allow disinformation to spread quickly, making them fertile grounds for false news [9]. Although not immune, offline channels typically employ various fact-checking and verification methods, showing the issues of false news across media. The issues of fake news thus permeate both types of media.

Independent or non-mainstream media, often referred to as unofficial media [10], include citizen journalism platforms where non-journalists provide news and comments. Unofficial media includes independent journalist and activist blogs and social media profiles [9]. These sources may challenge dominant narratives with grassroots reporting and alternative viewpoints. Unofficial media may provide varied perspectives, but the absence of editorial supervision may raise doubts about truth and reliability, highlighting the need for careful examination.

Untrustworthy sources spread a large volume of information. Given the existing literature highlighting the link between ambiguous

E-mail address: minhlth@ueh.edu.vn.

<https://doi.org/10.1016/j.heliyon.2024.e34468>

Received 15 July 2022; Received in revised form 4 July 2024; Accepted 10 July 2024

2405-8440/© 2024 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

information, source credibility, and the spread of misinformation [11–14], along with the increased stress and anxiety experienced by individuals during the ongoing COVID-19 pandemic [15,16], it is crucial to explore the intricate aspects of the dark side of fake news [17]. There are other reports that exploit the names of significant government officials to increase the legitimacy of the rumors [2]. This has a major impact on the reputation of government entities since it is impossible to manage fake news and poses a financial danger to consumers who believe in such false information. Gossip-sharing behavior, the dread of missing out, and the onset of social media fatigue are reasons for sharing fake information [18]. The need to thoroughly explore these issues stems from the reported increase in fake news distribution during the pandemic, with celebrities becoming unwitting purveyors. This spike in disinformation has a severe psychological impact on individuals, prompting concerted efforts to reduce stress and improve information literacy among social media users [19]. Because misinformation spreads quickly on social networks, people believe in fake news because they are exposed to huge amounts of information repeated many times on different channels. In addition, psychological stress also makes them more trusting because they would rather be prepared to protect themselves [20].

Existing research has not yet to comprehensively address key components of risk perception related to certain high-profile issues, leaving readers susceptible to believing material without a thorough understanding of the possible hazards [2]. Furthermore, ignorance or a lack of knowledge makes it simple for readers to trust widely circulated news. Notably, when information is endorsed by prominent and powerful personalities, people are more likely to accept it, a feature that prior studies have not adequately emphasized. When faced with the stress of persistent challenges and a lack of prompt answers, people are more prone to place their faith in news sources in an attempt to appear more at ease [1,21]. To have a complete understanding of the workings of studying audience receptivity to information, filling in these gaps is essential. To address these concerns, the main objective of this study was to evaluate the role of risk perception, media trust, and trust in celebrity posts. The study's insights provide crucial insights into mitigating the negative consequences of misinformation during the pandemic and developing a deeper understanding of workplace dynamics. The research results expands the truth theory by enhancing users' awareness of information on social networks, thereby increasing their vigilance.

Research questions.

RQ1. What factors make social network users more likely to trust shared information, especially during stressful times?

RQ2. What is the moderating role of disclosure willingness to receive fake news and share it on users' social networks?

This study carefully combines a solid theoretical framework on building trust to examine how people are susceptible to believing fake news, especially during stressful times of epidemics, or major crises. Hypotheses are then carefully formulated, clearly articulating expectations based on theoretical foundations. Next, research method would be presented including collecting data, data analysis to prove hypotheses. Findings of research confirm the extend of theory and provided a comprehensive contribution to practical application in the field.

2. Theoretical framework

2.1. Fake news

Fake news comprised news reports that mimic legitimate journalism but contain inaccurate or misleading information [1,2]. To boost viewership, fake news often employs sensationalist and erroneous writing or fabricates headlines. Such misinformation is deliberately crafted to deceive and cause harm to individuals or institution, or to gain for financial or political advantage [22]. Social media platforms, which feature tools such as chat, moment sharing, and photo-video sharing [23]. Users can exploit these functionalities to invade others' personal and private lives in order to propagate reactionary propaganda and provoke violence both online and offline [8]. Since the onset of the pandemic, the proliferation of fake news has been rampant. In fact, falsified or incorrect material on fake news that was issued without verification from the government had major effects. Fake news concerning the pandemic's advancement, including death tolls, isolation orders, or social distances, is particularly concerning due to its widespread dissemination on social media channels and has a high recurrence rate. Internet users have a higher level of trust in the information [16]. Such fake news has had serious consequences for the country's disease management procedures, including uncertainty regarding the number of cases, deaths, quarantined regions, and spraying orders. Similarly, the authorities struggled to verify information regarding air disinfectants.

2.2. Truth-default theory

The truth default theory (TDT) investigates human communication by examining the information people receive [24]. TDT demonstrates that individuals frequently exhibit a bias when presenting information, often showing predisposition to believe statements from others, even if they are false; this is known as truth bias [25]. People tend to consider interactive communication as trustworthy, making them to misinformation and deception, as they prefer to believe what they are told is accurate [26]. Indeed, when receiving an information, up to 50 % of the recipients choose to trust the reliability of the information [27]. Consequently, people easily believe fake news published on social media accounts. They are also more likely to trust information from accounts with a large number of followers, and without verifying the credibility of news [16].

3. Hypotheses development and research model

3.1. Risk perception

Risk perception, as a critical facet of information decision-making, is emerging as a pivotal factor in understanding why certain individuals may reduce the sharing of fake news. Risk perception is identified as a decisive determinant in the information evaluation process [28]. Individuals with elevated risk perception often experience the fear arousal effect, leading to a heightened sense of caution when disseminating information that they deem uncertain [29,30]. This cautious approach reflects a deliberate effort to navigate the uncertainties associated with information sharing. The interplay between risk perception and the sharing of fake news underscores the nuanced nature of decision-making in the digital information landscape.

Risk assessment is influenced by a variety of elements, including individual, societal, cultural, and situational considerations [28]. With the advancement of the internet and social networks, information related to the current issue spreads rapidly [7,31]. Several earlier studies have demonstrated that perceived health risks drive many people to feel concerned and continually seek information relevant to that worry [32–34]. This anxiety also causes individuals to accept related information quickly and easily [35,36], even if, unclear, without properly examining the quality and source of information. Individuals with high risk perception regarding false information recognize and emphasize potential negative consequences [37]. They adopt a cautious and skeptical stance, engaging in critical evaluation and fact-checking to mitigate potential harm. This heightened awareness reduces the likelihood of accepting and disseminating fake news without thorough scrutiny. Thus, the following hypothesis was stated.

H1. Risk perception has a positive influence on adopting fake news on social media.

3.2. Media trust

Media trust encompasses trust in information sources, information platforms, and the accuracy of information [38]. For individuals with limited social media literacy, the perceived credibility and dependability associated with media trust may have more power, thus reducing their capacity to distinguish between true and false information. This group may be more vulnerable to the persuasive power of trusted sources, inadvertently magnifying the spread of fake news inside their social networks. People exposed to incorrect information were more likely to assess accurate headlines as false, suggesting that disinformation may affect credibility [39,40]. According to the “illusory truth effect,” fake news may affect how people judge information reliability, including mainstream media trust.

Furthermore, the pandemic has persisted longer than anticipated, prompting individuals to follow every update on the situation. Currently, people use smart phones rather than TV or other traditional ways to receive news updates [41]. On social media platforms, users typically follow several pages, celebrities, or interested influencers — forming closed social communities [39]. In a social media group, trust is easily established due to the network people choose. Additionally, the reliability built by verified posts [5], allowing any new post to gain viewers’ trust easily. Laroche, Habibi [39] examine how misinformation undermines media confidence. They discovered that disinformation lowers mainstream media confidence, especially after corrections. This implies that disinformation, regardless of rectification, might lower confidence. Thus, we proposed the following hypothesis.

H2. Media trust has a positive influence on adopting fake news on social media.

3.3. Trust in celebrity posts

Celebrities are those who have achieved fame in a particular industry, such as movie, fashion, sports, politics etc. [42–44]. Their success is built on their exceptional professional competence and the high quality of work they produce throughout their careers, and they are well-known. Nowadays, celebrities mostly utilize social media to engage with their followers and the general public. Their Facebook, Instagram, and TikTok pages have a large following [45]. As a result, each of their postings on these social networking sites significantly influences their followers, i.e., the general public [46]. Furthermore, if followers find content from celebrity social networking sites intriguing, they post/share it further [47,48]. Due to their powerful stature, celebrities frequently exploit their posts on social networking sites as a source of information in order to attract large number of readers/viewers. Each post made by a celebrity on a social networking site impacts not just their followers but also a wide group of people in the society [49]. Celebrities often update essential information not only about their professional work but also about prevalent topics to make their content diverse and attract large group of followers [40,50]. They are, hence, extremely cautious when disseminating information, particularly, about health and current societal crisis [51]. Due to society’s strong interest in hottest information, content from official media and notable individuals is easy to accept, but the verification is little suspicious [33]. Therefore, we stated the following hypothesis.

H3. Trust in celebrity posts has a positive influence on adopting fake news on social media.

3.4. Stress

Stress causes pain and tiredness [52,53]. The three main components of stress are factor-causing stress, stress, and negative behavioral consequences [54]. With the rise of social media, abundant information has been made available, particularly, related to current events, causing difficulty in coping with a massive volume of data [55]. The threat of an outbreak, as well as the ongoing stream of new information concerning pandemic, celebrities, politicians’ private lives that has yet to provide a satisfying solution, has

put social media users on edge [54]. When users are upset, they take steps to alleviate their worry and suffering [56,57]. This means that consumers who are under a lot of information stress are more prone to circulate fake news in order to feel better. Indeed, a previous study discovered a correlation between information-induced stress and the spread of fake news [58]. People distributing fake news may do so to relieve tension due to isolation, lonely feelings, or they may be concerned and wish to convey unconfirmed information that they believe is essential and requires attention. Therefore, we stated the following hypothesis.

H4. Stress has a positive influence on adopting fake news on social media.

3.5. Adopting fake news on social media

The need for information is the primary motivator for individuals to share information, particularly, health-related, that may influence the entire community [4]. There is a great deal of evidence that social media platforms are being used to promote the preservation of fraudulent material online [21]. Online communities with simple activities such as likes, shares, and comments allow information to flow rapidly and effortlessly [59]. Particularly, health threat, or pandemic related information is quickly spread and accepted by individuals. Sharing vital news, especially, that affects not just them but the whole society makes them feel like ‘person of the hour’. Accepting fake news requires some consideration, but once accepted, sharing becomes easy, since people desire to convey vital information to many others, particularly, information posted by celebrities [38]. The more appealing the story, the more likely it is to be shared on social networking platforms, particularly, in relation to the pandemic [60]. Therefore, we stated the following hypothesis.

H5. Adopting fake news on social media has a positive influence on sharing fake news on social media.

3.6. Moderator effects of disclosure willingness

Disclosure willingness refers to a person’s willingness to share all the knowledge they have, particularly, one that is of high interest on social media [61]. Online trust and personal internet interests are among the types of information disclosed. Social affirmation, self-expression, and relationship growth are the driving forces behind information sharing [62]. Such people actively post information on social media and want their information to be seen by others [63]. Information disclosure has been studied in the contexts of e-commerce and online shopping, mobile technologies, and social networks. Significant connections between perceived fairness, perceived privacy risks and advantages, and desire to share personal information were discovered as antecedents to information sharing in online transactions [64]. Individuals would be eager to divulge such information if they believe the actions will benefit them. The speed with which information is disseminated is determined by the importance of the content as well as the online community’s interest [65]. Celebrity-posted information is simpler to absorb and distribute. The more individuals are interested in an information, the easier it becomes to acquire and distribute that information without being scrutinized. Therefore, we hypothesized the following.

H6. The relationship between adopting fake news and sharing fake news on social media is stronger for people with high-disclosure willingness and weaker for those with low-disclosure willingness.

The proposed research model was presented in Fig. 1.

4. Methodology

4.1. Data collection

Initial trial surveys were conducted to verify the content of questions, in general, participants understood all of the elements of the

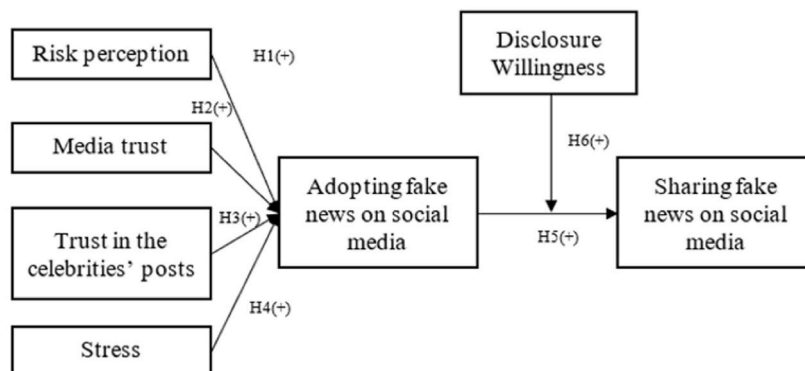


Fig. 1. Proposed research model.

conceptual framework. We collected data in Vietnam. All participants are informed that personal information will be kept confidential. Because of widespread use of social media in today's culture, this study's demography just requires those above the age of 18. To reach the responder group conveniently, we opted to collect data at shopping malls, convenience stores, near colleges, and office buildings. Therefore, if a participant indicated that they were under the age of 18 and did not use social media, the survey was ended with a thank you message on the screening question.

Before spreading the survey, we conducted a pilot test with 10 participants to ensure respondents clearly understood the questions and reduce errors in the questionnaire. The revised survey was sent to two marketing experts to assess the whole questionnaire at the last time. To ensure data reliability and accuracy, each item should ideally have a minimum of 5–10 respondents. With 30 items, the minimum sample size should be 150–300 respondents. The survey collected 392 respondents, and a valid number is 370, statically exceeding the highest recommended minimum sample size, thus ensuring the threshold of statistical requirements.

All participants were asked to provide consent prior to their inclusion in the study and assured that their information will be kept private. Although 392 individuals provided data, only 370 response sheets were acceptable since some did not complete all of the questions and others answered the ones that were missing. The percentage of legitimate response sheets is 94.4 percent, which meets the requirement for data quality. Table 1 presents the demographic information of the 370 valid respondents (see Table 1). A *t*-test was used to see whether there are gender disparities in fake news, product knowledge, and other variables. The results revealed gender differences in adopting fake news, but no differences in the other categories. A one-way ANOVA test was used to compare variations in age, income, and education across the study model's component groups. The findings suggest that only trust in celebrity posts and adopting fake news on social media varies between education levels; Adopting fake news on social media differs between age groups; and stress and media trust differ between income categories. Other variables have no difference between all three factors.

4.2. Construct measurement

All measurements were introspective. In addition, all of the items were modified from previous research. Before collecting the data, we ran pilot research with ($n = 10$) participants. We reworded certain things to enhance clarity based on the results of the pilot research and expert advice. The scale used in this study was derived from the scales used in the prior study and was modified to fit the goal. There are 6 research concepts used in this study: (1) Risk perception (RP) was adopted from Bickerstaff [66], Media trust [67] was adopted from Fang, Shao [68], (3) Trust in celebrity posts (TCP) was adopted from Hui et al. (2004) and Morgan & Hunt (1994) [69], Stress (ST) was adopted from Lovibond & Lovibond (1995), (5) Adopting fake news (AFN) was taken from Thompson, Wang [4], (6) Sharing fake news (SFN) was adopted from Talwar, Dhir [6] and Khan and Idris [70], (7) Disclosure willingness (DW) was adopted from Collins & Miller (1994). All observed variables listed below were measured on a 5-point scale with values from level 1 (strongly disagree) to level 5 (strongly agree).

Table 1
Demographic characteristics.

Characteristics		Frequency	%
Gender	Male	183	49.5
	Female	187	50.5
	Total	370	100
Age	18–25	133	35.9
	26–35	172	46.5
	36–45	22	5.9
	Above 45	43	11.6
	Total	370	100
Education	High-school	43	11.6
	Vocational degree	128	34.6
	Under-graduate	161	43.5
	Post-graduate	38	10.3
	Total	370	100
Income	Under 5 VND million	88	23.8
	From 5 to 10 VND million	129	34.9
	From 10 to 15 VND million	112	30.3
	Above 15 VND million	41	11.1
	Total	370	100
Social media usage	Facebook	222	60
	Instagram	58	15.7
	YouTube	66	17.8
	Zalo	24	6.5
	Total	370	100
Time to use social media per day	Under 3 h	26	7
	From 3 to 5 h	186	50.3
	Above 5 h	158	42.7
		370	100

5. Data analysis results

To assess the research model, structural equation modeling was used [72]. Partial Least Squares (Smart PLS) was specifically employed. As a result, a bootstrap resampling approach of 5000 samples was utilized to investigate the model's route. PLS has been found to work well with small samples [71]. As a result, PLS is well suited for exploratory studies like this one [71]. Hair, Risher [72] developed a two-stage technique for estimating the measurement and structural model, which was implemented in this study.

Since we obtained all the data from the same survey, we checked for common method bias (CMB) [73]. First, Harmon's single-factor analysis was performed, and the findings show that a single factor explained 36.152 % of the variation (which is less than the 50 % criterion). Second, we applied the correlation matrix approach [74]. If the correlation between the major constructs is greater than 0.9, this technique indicates that CMB is present in the research [67]. The correlation matrix explored the relationships between latent variables and main constructs. None, however, were found to be more than 0.90. Finally, the Variance Inflation Factor (VIF) is lower (between 1.000 and 2.815) than the recommended limit of 5. As a result, CMB and collinearity had no impact on the current study's model.

5.1. Reliability and validity assessment for the measurement model

This study investigated two components of the measurement model: convergent validity and discriminant validity. To assess convergent validity, we first validated the Cronbach's alpha value, which revealed that all of the values exceeded the suggested threshold of 0.7 (see Table 2). Second, we validated the average variance extracted (AVE) [75] and discovered it was greater than 0.5. Third, we examined the Composite Reliability [73], and they are all more than 0.7 (see Table 3). Fourth, consider the indicator loading, which exceeds the criteria of 0.7 [72] (see Table 3). Based on these results, there were no difficulties with convergent validity. Also looked into discriminant validity [72]. Table 3 shows that for each construct, the AVE's square root outperformed its association with

Table 2
Factor loadings assessment.

Code	Items	Factor loadings	α
Media trust (MT)			
MT1	I trust information and information shared on mainstream media	0.893	0.865
MT2	I trust information or news shared on Alternative Media	0.861	
MT3	I trust information and news shared on Social Networks (Facebook).	0.840	
Trust in the celebrities' post (TCP)			
TC1	Celebrities' post can be trusted at any times	0.829	0.905
TC2	Celebrities' post is perfectly honest and truthful	0.832	
TC3	Celebrities' post can be trusted completely.	0.795	
TC4	Celebrities' post can be counted on to do what is right	0.854	
TC5	Celebrities' post is always faithful	0.784	
TC6	Celebrities' post is someone that I have great confidence in.	0.751	
TC7	Celebrities' post has high integrity	0.732	
Disclosure Willingness (DW)			
DW1	I am willing to provide my personal information when asked by fake news	0.871	0.874
DW2	I am willing to disclose even sensitive personal information to fake news	0.899	
DW3	I am willing to be truthful in revealing my personal information to fake news	0.910	
Risk perception (RP)			
RP1	Getting a fake news is risky	0.857	0.889
RP2	Fake news can lead to bad results	0.891	
RP3	Fake news has uncertain outcomes	0.872	
RP4	Getting a fake news makes me feel anxious	0.842	
Stress (ST)			
ST1	I find it hard to wind down.	0.815	0.905
ST2	I find it difficult to relax.	0.800	
ST3	I find I have a lot of nervous energy to expend	0.831	
ST4	I find myself easily agitated.	0.757	
ST5	I tend to over-react to situations	0.749	
ST6	I tend to be rather touchy	0.846	
ST7	I quickly become intolerant of anything that keeps me from getting on with what I am doing.	0.785	
Adopting fake news on social media (AFN)			
AF1	I am likely to accept news that I receive on social media	0.819	0.865
AF2	I am influenced by views, videos and comments made on social media.	0.857	
AF3	I believe whatever is presented on social media is true	0.842	
AF4	Social media guides or misguides people about political entities.	0.744	
AF5	My personal beliefs are shaped by social media	0.755	
Sharing fake news on social media (SFN)			
SFN1	I shared the fake news on social media because I didn't know that content was exaggerated at the time of sharing.	0.834	0.866
SFN2	I shared fake news on social media without checking the facts through trusted sources.	0.883	
SFN3	I shared the fake news on social media without reading the full article.	0.837	
SFN4	I share news on social media social media that has appeal without even realizing its fake.	0.821	

Note: α : Cronbach's Alpha.

Table 3
Reliability and validity.

Constructs	CR	AVE	AFN	TC	DW	MT	RP	SFN	ST
AFN	0.901	0.647	0.804						
TC	0.924	0.636	0.487	0.798					
DW	0.922	0.799	0.618	0.345	0.894				
MT	0.899	0.748	0.473	0.415	0.371	0.865	0.866		
RP	0.923	0.749	0.501	0.364	0.381	0.440	0.362	0.844	
SFN	0.908	0.713	0.623	0.285	0.698	0.374	0.558	0.392	0.798
ST	0.925	0.637	0.550	0.563	0.432	0.469	0.866		

Notes: CR: Composite Reliability; AVE: Average Variance Extracted; **p-value <0.01, *p-value <0.05; SFN: Sharing fake news social media; AFN: Adopting fake news social media; ST: Stress; RP: Risk perception; DW: Disclosure Willingness; TCP: Trust in the celebrities' post; MT: Media trust.

other constructs [76]. The heterotrait-monotrait correlation ratio (HTMT) criteria is considerably less than one, showing the constructs' uniqueness [77] (see Table 4). These numbers indicate that there are no validity difficulties with the measurement model [78]. As a result, there was no concerns with discriminant validity and concluded that all of the measures in our model displayed outstanding psychometric qualities.

5.2. Evaluation of the structural model

To analyze the path coefficient (β values), t -test value, effect size (f^2), predictive relevance (Q^2), and coefficient of determination (R^2). With regard to direct effects, we hypothesized that risk perception (H1, $\beta_{RP} = 0.219$; t -value = 4.237; $p = 0.000$), media trust (H2, $\beta_{MT} = 0.187$; t -value = 3.916; $p = 0.01$), trust in celebrity posts (H3_{TC}, $\beta = 0.203$; t -value = 3.581; $p = 0.000$), and stress during lockdown (H4_{ST}, $\beta = 0.227$; t -value = 3.767; $p = 0.000$) were positively related to adopting fake news, thus, supporting H1, H2, H3 and H4. Adopting fake news is positively related to spreading fake news (H5, $\beta_{AFN} = 0.351$; t -value = 7.589; $p = 0.000$), thus, supporting H5 (see Table 5).

To examine the effect size (f^2) after determining the path coefficient (β values), which may range from small 0.025 to medium 0.157 to large 0.380. The effect sizes (f^2) for the five associations varied from small to large effect size. Next, Table 6 shows that Stone-Geisser test of predictive relevance (Q^2) for adopting fake news from social media is 0.234, and sharing fake news on social media is 0.386, implying that the research model is predictably relevant [79,80].

R^2 for adopting fake news was 0.546, meaning that community awareness, trust in social media, and risk perception explained the 54.6 % of adoption to fake news. Similarly, self-efficacy explained 23.1 % of adopting fake news and was the construct that best represented adoption to fake news, spreading fake news explained 38.3 % of self-efficacy, and adoption to fake news, which predict capabilities and relationships between the constructs [78]. The research model with results was presented in Fig. 2.

5.3. Moderating effects of disclosure willingness

To examine the moderating roles of disclosure willingness (Hypothesis 6), the data analysis was presented in Fig. 2. The figure illustrates the relationship between fake news (x-axis), and sharing fake news (y-axis). The central represents an average level of the moderator variable disclosure willingness (DW). The other two lines depict the relationship between adopting fake news on social media (AFN) and DW at higher (mean value of DW plus one standard deviation unit) and lower (mean value of DW minus one standard deviation unit) levels of the moderator variable DW.

The relationship between AFN and sharing fake news (SFN) is positive, as evidenced by the positive slopes of all three lines. This indicates that higher levels of AFN lead to higher levels of SFN. Both the upper and lower lines, representing higher and lower levels of DW, exhibit flatters slopes, which aligns with positive interaction effect observed (see Fig. 3).

As a general approximation, the slope of high level of DW can be calculated as the simple effect ($\beta = 0.530$) plus the interaction effect ($\beta = 0.094$). Conversely, the slope of the low level of DW is the simple effect ($\beta = 0.530$) minus the interaction effect. Consequently, the basic slope plot verifies our earlier explanation of the positive interaction term. Higher DW levels indicate a stronger link

Table 4
Heterotrait-monotrait ratio (HTMT).

Constructs	AFN	TC	DW	MT	RP	SFN	ST
AFN							
TC	0.521						
DW	0.692	0.385					
MT	0.545	0.470	0.436				
RP	0.548	0.400	0.429	0.511			
SFN	0.712	0.317	0.798	0.437	0.407		
ST	0.595	0.623	0.479	0.536	0.618	0.436	

Notes: SFN: Sharing fake news on social media; AFN: Adopting fake news on social media; ST: Stress; RP: Risk perception; DW: Disclosure Willingness; TCP: Trust in the celebrities' post; MT: Media trust.

Table 5
Construct Cross validated Redundancy.

	SSO	SSE	Q ² (=1-SSE/SSO)
Adopting fake news on social media	1850.000	1416.443	0.234
Trust in the celebrities' post	2590.000	2590.000	
Disclosure Willingness	1110.000	1110.000	
Media trust	1110.000	1110.000	
Risk perception	370.000	370.000	
Sharing fake news on social media	1480.000	1480.000	
Stress	1480.000	908.472	0.386

Notes: SSO: sum of squares of observations; SSE: Sum of squared errors. Q² should be from 0 to 1.

Table 6
Hypotheses results.

Hypotheses	β	STDEV	t-values	P Values	Results
H1. Risk perception → Adopting fake news on social media	0.219	0.051	4.327	0.000	Supported
H2. Media Trust → Adopting fake news on social media	0.187	0.048	3.916	0.000	Supported
H3. Trust in the celebrities' posts → Adopting fake news on social media	0.203	0.057	3.581	0.000	Supported
H4. Stress → Adopting fake news on social media	0.227	0.060	3.767	0.000	Supported
H5. Adopting fake news on social media → Sharing fake news on social media	0.351	0.046	7.589	0.000	Supported

Notes: STDEV: Standard Deviation; β: path coefficient.

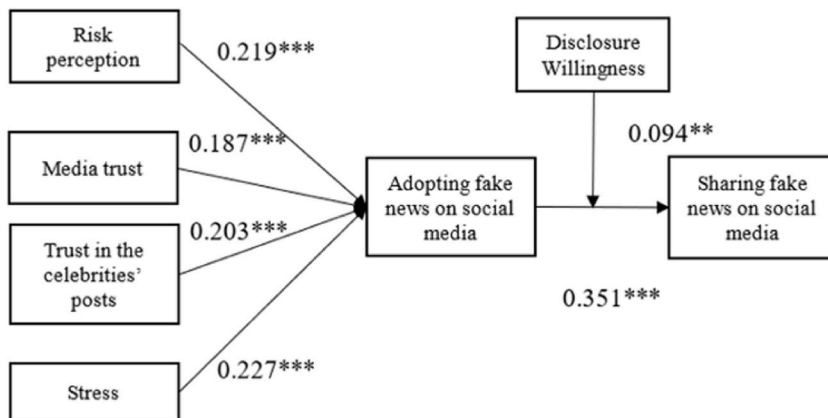


Fig. 2. Research model results.

between AFN and SFN. This analysis underscores the moderating influence of DW on the relationship between AFN and SFN, with higher DW levels indicating a more pronounced connection (see Fig. 4).

Next, to determine the interaction term, we applied execute the bootstrapping technique using 5000 bootstrap samples. The analysis revealed a p-value of 0.005 for the relationship between the interaction term and AFN. Furthermore, the 95 % bias-corrected bootstrap confidence range for the interaction term's impact was 0.025–0.029. Since, this interval does not contain zero, we concluded that the impact is significant. These results confirm that disclosure willingness (DW) has a significant and positive moderating effect on the relationship between AFN and sharing fake news (SFN). Specifically, higher levels of DW strengthen the link between adopting fake news and spreading it. This finding is consistent with previous studies [81,82]. Additionally, we examined the effect size of the moderator using Cohen's *f*². The interaction term's *f*² effect size had a value of 0.025, which indicates a medium effect (see Table 7). This further substantiates the importance of DW in moderating the relationship between AFN and SFN providing a comprehensive understanding of its role in this context.

5.4. Discussion

This study examines various factors about fake news by combining risk perception, trust in the media, celebrity posts on social media platforms, and theoretical tensions of Truth-Default Theory. Integrating this theory creates a lens full of relevant items that explain why individuals may accept or disseminate fake news [24]. Previous research on false news has frequently focused on cognitive biases that distinguish between true and fake news, political affiliation, and demographic characteristics. Chang, Liu [38],

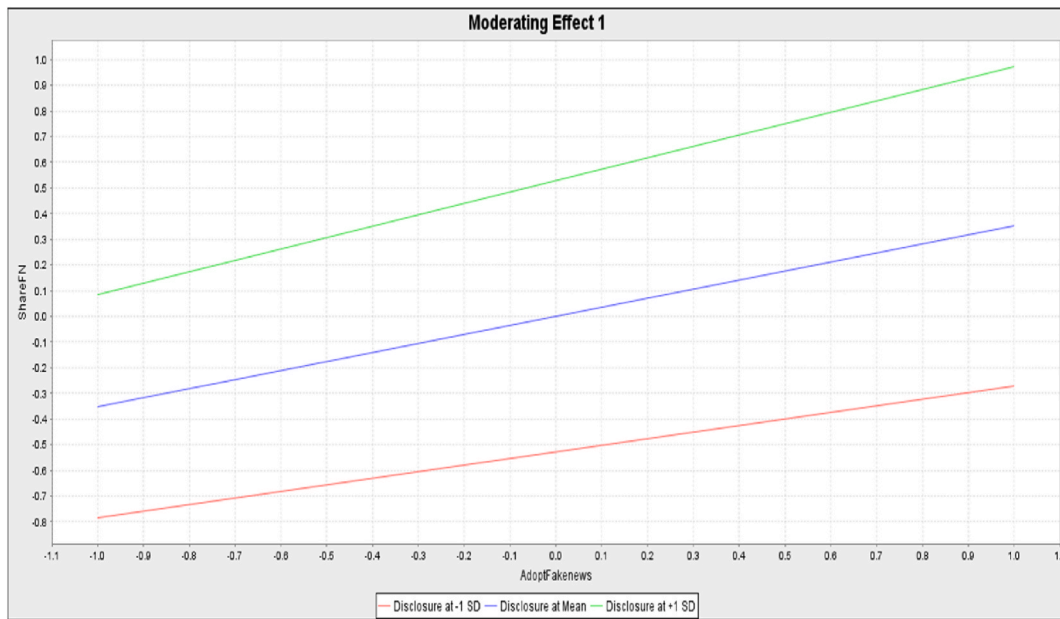


Fig. 3. Moderating effect result.

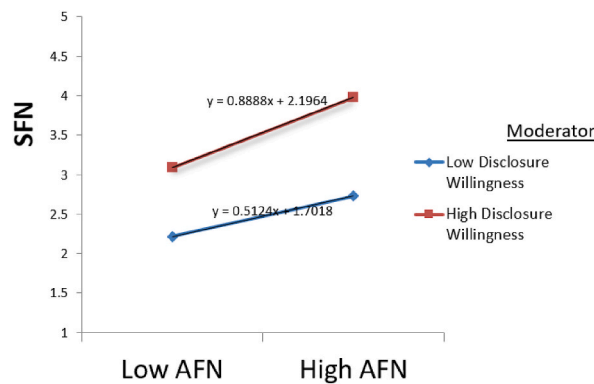


Fig. 4. Disclosure Willingness strengthens the positive relationship between AFN and SFN.

Table 7

Moderating role of Disclosure Willingness.

Relationships	β	STDEV	t-values	P Values	f^2	95 % CIUL	95 % CILL
H6a: DW \rightarrow SFN	0.530	0.042	12.515	0.000	0.380	0.444	0.611
H6b: AFN * DW \rightarrow SFN	0.094	0.034	2.790	0.005	0.025	0.029	0.162

Notes: β : path coefficient; STDEV: Standard Deviation; DW: Disclosure Willingness; SFN: Sharing fake news on social media; AFN: Adopting fake news on social media.

Sindermann, Schmitt [13] discovered that people with a more analytical perspective are less likely to trust and spread fake news. However, the current study expands on this by include an emotional and psychological dimension, emphasizing how stress levels and risk perceptions decrease the threshold for critical evaluation, making people more likely to believe fake news.

First, this study highlights that stress and risk perception significantly influence risk taking. This is an important finding, because during times of high stress, such as the Covid-19 pandemic, individuals are more susceptible to misinformation than in a normal state. This is consistent with previous research suggesting that anxiety and uncertainty reduce critical thinking, and make people more likely to believe misinformation [30].

Second, interestingly, trust in the media has little impact on acceptance of fake news, and trust in social media posts by celebrities also has little impact. This is contrary to previous research, which often emphasizes the enormous impact of celebrities in shaping

public opinion [38,40]. It suggests a shift may be occurring in the way users view information sources. Showing that users are increasingly skeptical of media content possibly because of some previous negative experiences they encountered. Individuals with higher risk perception may paradoxically accept fake news on social media due to their heightened vigilance to potential risks [37,66]. They tend to trust to sources that reinforce their concerns without thorough verifications.

Next, the study's observation that prolonged social media use during lockdowns exacerbated beliefs in misinformation resonates with existing literature on the "echo chamber" effect [83], where continuous exposure to similar views can strengthen beliefs, including false beliefs [35]. This prolonged interaction, coupled with the psychological stress of lockdown, creates fertile ground for the spread of fake news. Additionally, fake news spreads faster on social networks than real news [14]. This study confirmed that stressful situations and high risk perceptions will further accelerate this spread. Therefore, emphasizing the importance of emotional and psychological factors in spreading false information. Individuals with lower social media literacy, who depend heavily on media trust, face greater challenges in distinguishing true information from falsehoods. To tackle misinformation, individuals should improve critical media literacy [22]. Individuals who usually trust mainstream media may extend their trust to less reliable sources on social networks, trusting their legitimacy without extensive verification. Followers' confidence in celebrities' social media posts encourages the spread of bogus news [49]. Celebrities' endorsements of material may persuade followers to accept it without question, allowing them to spread potentially erroneous information. This dynamic contributes to the amplification of fake news within their social networks. This study suggests that misinformation weakens trust in the media, which is consistent with previous findings on the persistence of misinformation. Additionally, a continuing influence effect will occur [35], once misinformation has been corrected to increase trust.

This study emphasizes how vulnerable people with limited social media literacy are to fake news. These people are more prone to disinformation because they lack the abilities necessary to appropriately assess social media content. This finding is consistent with previous research that stresses the relevance of media literacy in competing the spread of fake news [22]. By enabling users to distinguish between reliable and fake news more skillfully, social media literacy supports reduce the spread of fake news.

Celebrities have significant influence on social media platforms, where large numbers of followers look forward to breaking news and interacting with them [43,49]. This will make news posted by celebrities spread quickly. This study is consistent with previous research, which shows that celebrities shape public opinion and public behavior through their media activities [33,50]. This study confirms that followers absorb information and spread content, amplifying celebrity information on social networking platforms.

Perceptions of stress and risk exert significant influence on trust dynamics, particularly in stressful situations, where individuals may seek rapid solutions and reassurance, making them more likely to accept unverified information as a means of reducing ambiguity or anxiety [14]. It can be helpful to determine whether honesty in stating one's ideas influences the receipt and transmission of potentially misleading information.

Willingness to disclose represents individuals sharing information on their social networks, emphasizing willingness to be motivated by motives such as social affirmation, self-expression, and developing relationships. generation. There is currently a trend of expressing personal knowledge and interests on the internet [48]. In the current context of social network development, privacy risks and shared benefits are the main premise for information sharing. This study focuses on identifying motivational factors for information transfer through the social network environment, and the object of information transmission is posts by famous people.

6. Conclusions

6.1. Theoretical implications

This study illuminates critical determinants shaping the trust levels of social media users and their subsequent inclination to disseminate information. Establishing standards to ensure accuracy in media has become an important factor, as individuals tend to place more trust in information available on media platforms. Celebrity trust means is a new trend which appears recently. People think that celebrities themselves have to protect their names, so the information they give is often trustworthy. However, there is also a dark side, famous people know that people easily believe in them, and because they want to attract attention, they often quickly share some new and hot information from some sources they think that they can trust and lack verification. This is a new factor that has developed due to the recent explosion of people's predominantly online behavior.

Perceptions of stress and risk exert significant influence on trust dynamics, particularly in stressful situations, where individuals may seek rapid solutions and reassurance, making them more likely to accept unverified information as a means of reducing ambiguity or anxiety. It can be helpful to determine whether honesty in stating one's ideas influences the receipt and transmission of potentially misleading information. At this time, users are easier to accept information without further scrutiny. Individual's cognitive resources are limited their critical capacity to assess content. Stress creates a sense of urgency, that speedy resolution above correctness. Likewise, high risk perception looks for emotional comfort, which leads to lack of validating facts. With high risk perception, a psychological urge happens that requires make a quick decision, then take a high risk. Thus, both stress and risk are likely to accept unverified information. Understanding this can support to interevent individuals developing a better coping mechanism, and enhance their ability to recognize trustworthy information.

Moderating role of disclosure willingness significantly influences sharing fake news of users on their channels. This suggests users tendency to share information without strict verification in crisis undermines adherence to the theory of truth. They prefers update information. Understanding this role provides a broader view of complex process that drives spreading fake news in a mental urge, not simply a cognitive one. This further emphasize the importance of mental control in sharing information on digital platforms.

6.2. Practical implication

The findings of this study provided several practical implications in understanding factors that users are tend to accept fake news in a crisis situation. First, risk perception is the thing that users must accept, and make a quick decision. Therefore, communication should controls their sources of information, verify them quickly and provide a short news in a time. That should support users make a right decision on the news. Next, users tend to believe celebrity postings quite easily and disregard the need to confirm related facts. This behavior shows that celebrities significantly influence people's trust in information. According to the findings of the study, even superstars may spread fake news, probably because they do not have the time to verify it. Consumers should examine the validity of any shared information. In the meantime, celebrities must carefully examine the sources of all the information they accept and share since they exert huge influence on their following.

Sharing news on social media is far too simple, enabling the media to partially exploit these technologies and, at times, fail to make the effort to double-check facts. They must understand that, no matter how simple it is to share, accuracy and reliability are critical to establishing confidence and retaining a following. It is also the media's ethical obligation. As a result, the media must always rigorously vet the material they disseminate in the long run. Furthermore, readers are highly cautious, always questioning the logic of information and cross-checking different sources to verify the quality of information obtained. If they discover excessive misinformation, readers may also use the report button to defend themselves and prevent this misbehavior from happening again.

6.3. Limitation and future research

There are several limitations in this research. Firstly, the study was conducted in a single nation and data were collected at one point in time, which limits the generalizability of the findings. Future research should be conducted over longer periods and across diverse cultural contexts to enhance the representativeness of the results.

While the study included statistical analyses of demographic factors such as age, gender, and income, these demographic factors were not the main subject of our investigation. Specifically, the interaction between these demographic factors and stress, celebrity postings, media trust, and risk perception were not thoroughly examined. Although these demographic factors were included in the regression model as control variables to account for potential confounding effects, their precise impacts were not the main subject of this research.

These variables' precise impacts were not thoroughly examined, despite the fact that they were added to our regression model as controls to account for any confounding effects. The main goal was to look at the connections between stress, celebrity posts, media trust, risk perception, and the acceptance and spread of false information. Comprehensive demographic analyses were outside the purview of this investigation. Incorporating comprehensive analyses of other demographic factors would significantly enhance our models' intricacy, perhaps confusing the interpretation of the results. Future research should conduct subgroup analyzes to understand how gender, income, and age interact with psychological factors and influence the acceptance and dissemination of fake news. Including interaction terms in the regression model can help determine whether these demographic factors moderate the relationship between stress, risk perception, media trust, and dissemination fake news or not and how.

Anxiety-provoking psychological impacts, protracted lockdowns, economic insecurity, and disrupted logistic chains are all negative psychological elements that influence the adoption and dissemination of fake news. This results in a mental state that many people have never experienced before. Future studies may concentrate on the continued psychological instability and protracted stress generated by worry and uncertainty, as well as its impact on the level of acceptance and dissemination of fake news. Investigating the process by which exposure to false information erodes confidence in reliable sources. Future studies should focus on discovering techniques to rebuild public trust after reputational damage caused by fake news. While it is well acknowledged that disinformation exacerbates societal differences, the methods by which false news causes these divisions have not been adequately investigated. Future studies should focus on categorizing different sorts of divides and developing more effective techniques for promoting conversation.

Data availability statement

The datasets used and analysed during the current study available from the corresponding author on reasonable request.

Ethics declarations

All the research meets ethical guidelines and adheres to the legal requirements of the study country.

Funding

This work is supported by the by University of Economics Ho Chi Minh City (UEH), Vietnam (2021-11-15-0677).

CRediT authorship contribution statement

Minh T.H. Le: Writing – review & editing, Writing – original draft, Methodology, Investigation, Data curation, Conceptualization.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author(s) used [chatgpt] in order to [Polish the article and revise the grammar]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [1] S. Raza, C. Ding, Fake news detection based on news content and social contexts: a transformer-based approach, *Int. J. Data Sci. Anal* 13 (4) (2022) 335–362.
- [2] G.D. Domenico, et al., Fake news, social media and marketing: a systematic review, *Journal of Business Research* 124 (2021) 329–341.
- [3] D.-R. Obada, D.-C. Dabija, “In flow”! Why do users share fake news about Environmentally friendly brands on social media? *Int. J. Environ. Res. Publ. Health* 19 (2022) <https://doi.org/10.3390/ijerph19084861>.
- [4] N. Thompson, X. Wang, P. Daya, Determinants of news sharing behavior on social media, *J. Comput. Inf. Syst.* 60 (6) (2019) 593–601. <https://doi.org/10.1080/08874417.2019.1566803>.
- [5] C.S. Lee, L. Ma, News sharing in social media: the effect of gratifications and prior experience, *Comput. Hum. Behav.* 28 (2) (2012) 331–339.
- [6] S. Talwar, et al., Why do people share fake news? Associations between the dark side of social media use and fake news sharing behavior, *J. Retailing Consum. Serv.* 51 (2019) 72–82.
- [7] E. Niemiec, COVID-19 and misinformation: is censorship of social media a remedy to the spread of medical misinformation? *EMBO Rep.* 21 (11) (2020) e51420.
- [8] E. Radwan, A. Radwan, W. Radwan, The role of social media in spreading panic among primary and secondary school students during the COVID-19 pandemic: an online questionnaire study from the Gaza Strip, Palestine, *Heliyon* 6 (12) (2020) e05807.
- [9] M. Mukherjee, C. Maity, S. Chatterjee, Media use pattern as an indicator of mental health in the COVID-19 pandemic: dataset from India, *Data Brief* 34 (2021) 106722.
- [10] T. Xu, U. Sattar, Conceptualizing COVID-19 and public panic with the moderating role of media use and uncertainty in China: an empirical framework, in: *Healthcare*, MDPI, 2020.
- [11] J. Colliander, “This is fake news”: investigating the role of conformity to other users’ views when commenting on and spreading disinformation in social media, *Comput. Hum. Behav.* 97 (2019) 202–215.
- [12] J.W. Cheng, et al., Lesser evil? Public opinion on regulating fake news in Japan, South Korea, and Thailand – a three-country comparison, *Telecommun. Pol.* 45 (9) (2021) 102185.
- [13] C. Sindermann, et al., The evaluation of fake and true news: on the role of intelligence, personality, interpersonal trust, ideological attitudes, and news consumption, *Heliyon* 7 (3) (2021) e06503.
- [14] A. Bermes, Information overload and fake news sharing: a transactional stress perspective exploring the mitigating role of consumers’ resilience during COVID-19, *J. Retailing Consum. Serv.* 61 (2021) 102555.
- [15] Z. Bastick, Would you notice if fake news changed your behavior? An experiment on the unconscious effects of disinformation, *Comput. Hum. Behav.* (2021) 116.
- [16] W. Ceron, M.-F. de-Lima-Santos, M.G. Quiles, Fake News Agenda in the Era of COVID-19: Identifying Trends through Fact-Checking Content, *Online Social Networks and Media*, 2021, p. 21.
- [17] C. Iwendi, et al., Covid-19 fake news sentiment analysis, *Comput. Electr. Eng.* 101 (2022) 107967.
- [18] S. Talwar, et al., Sharing of fake news on social media: application of the honeycomb framework and the third-person effect hypothesis, *J. Retailing Consum. Serv.* 57 (2020) 102197, 102197.
- [19] M. Davoudi, M.R. Moosavi, M.H. Sadreddini, DSS: a hybrid deep model for fake news detection using propagation tree and stance network, *Expert Syst. Appl.* 198 (2022) 116635.
- [20] C. Beauvais, Fake news: why do we believe it? *Joint Bone Spine* 89 (4) (2022) 105371.
- [21] T. McGonagle, “Fake news” False fears or real concerns? *Neth. Q. Hum. Right.* 35 (4) (2017) 203–209.
- [22] S.M. Jang, J.K. Kim, Third person effects of fake news: fake news regulation and media literacy interventions, *Comput. Hum. Behav.* 80 (2018) 295–302.
- [23] T.M.T. Hossain, et al., Reconceptualizing integration quality dynamics for omnichannel marketing, *Ind. Market. Manag.* 87 (2020) 225–241.
- [24] T.R. Levine, Truth-default theory (TDT) a theory of human deception and deception detection, *J. Lang. Soc. Psychol.* 33 (4) (2014) 378–392.
- [25] S.A. McCornack, M.R. Parks, Deception detection and relationship development: the other side of trust, *Ann. The. Int. Commun. Assoc* 9 (1) (1986) 377–389.
- [26] T.R. Levine, R.K. Kim, L.M. Hamel, People lie for a reason: three experiments documenting the principle of veracity, *Commun. Res. Rep.* 27 (4) (2010) 271–285.
- [27] T.R. Levine, H.S. Park, S.A. McCornack, Accuracy in detecting truths and lies: documenting the “veracity effect”, *Commun. Monogr.* 66 (2) (1999) 125–144.
- [28] K. Henwood, et al., Risk, framing and everyday life: epistemological and methodological reflections from three socio-cultural projects, *Health Risk Soc.* 10 (5) (2008) 421–438.
- [29] X. Wang, et al., Factors influencing fake news rebuttal acceptance during the COVID-19 pandemic and the moderating effect of cognitive ability, *Comput. Hum. Behav.* 130 (2022) 107174.
- [30] J.-W. van Prooijen, M. Acker, The influence of control on belief in conspiracy theories: conceptual and applied extensions 29 (5) (2015) 753–761.
- [31] M. Himelein-Wachowiak, et al., Bots and misinformation spread on social media: implications for COVID-19, *J. Med. Internet Res.* 23 (5) (2021) e26933.
- [32] O.D. Apuke, B. Omar, Fake news and COVID-19: modelling the predictors of fake news sharing among social media users, *Telematics Inf.* 56 (2021) 101475.
- [33] M. Kamiński, C. Szymańska, J.K. Nowak, Whose tweets on COVID-19 gain the most attention: celebrities, political, or scientific authorities? *Cyberpsychol., Behav. Soc. Netw.* 24 (2) (2021) 123–128.
- [34] M. Saud, M.i. Mashud, R. Ida, Usage of social media during the pandemic: seeking support and awareness about COVID-19 through social media platforms, *J. Publ. Aff.* 20 (4) (2020) e2417.
- [35] S. Lewandowsky, et al., Misinformation and its correction: continued influence and successful debiasing, *Psychol. Sci. Publ. Interest* 13 (3) (2012) 106–131.
- [36] Z. Deng, S. Liu, Understanding consumer health information-seeking behavior from the perspective of the risk perception attitude framework and social support in mobile social media websites, *Int. J. Med. Inf.* 105 (2017) 98–109.
- [37] G. Wachinger, O. Renn, C. Begg, C. Kuhlicke, The risk perception paradox-implications for governance and communication of natural hazards, *Risk Anal* 33 (6) (2013) 1049–1065, <https://doi.org/10.1111/j.1539-6924.2012.01942.x>.
- [38] S.E. Chang, A.Y. Liu, W.C. Shen, User trust in social networking services: a comparison of Facebook and LinkedIn, *Comput. Hum. Behav.* 69 (2017) 207–217.
- [39] M. Laroche, et al., The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty, *Comput. Hum. Behav.* 28 (5) (2012) 1755–1767.
- [40] C. Lou, S. Yuan, Influencer marketing: how message value and credibility affect consumer trust of branded content on social media, *J. Interact. Advert.* 19 (1) (2019) 58–73.

- [41] L. Humphreys, V. Karnowski, T.V. Pape, Smartphones as metamedia: a framework for identifying the niches structuring smartphone use, *Int. J. Commun.* (2018) 2793.
- [42] G.S. Nisbett, C.C. DeWalt, Exploring the influence of celebrities in politics: a focus group study of young voters, *Atl. J. Commun.* 24 (3) (2016) 144–156.
- [43] B.P. Fraser, W.J. Brown, Media, celebrities, and social influence: identification with Elvis Presley, *Mass Commun. Soc.* 5 (2) (2002) 183–206.
- [44] G. Stone, M. Joseph, M. Jones, An exploratory study on the use of sports celebrities in advertising: a content analysis, *Sport Market. Q.* 12 (2) (2003).
- [45] S.V. Jin, A. Muqaddam, E. Ryu, Instafamous and social media influencer marketing, *Market. Intell. Plann.* 37 (5) (2019) 567–579.
- [46] G.S. Dhanesh, G. Duthler, Relationship management through social media influencers: effects of followers' awareness of paid endorsement, *Publ. Relat. Rev.* 45 (3) (2019) 101765.
- [47] E. Kennedy, I create, you create, we all create – for whom? *J. Prod. Brand Manag.* 26 (1) (2017) 68–79.
- [48] D. Belanche, M. Flavián, S. Ibáñez-Sánchez, Followers' reactions to influencers' Instagram posts, Spanish, *J. Market. ESIC* 24 (1) (2020) 37–54.
- [49] A.U. Zafar, et al., The impact of social media celebrities' posts and contextual interactions on impulse buying in social commerce, *Comput. Hum. Behav.* 115 (2021) 106178.
- [50] H.J. Park, L.M. Lin, The effects of match-ups on the consumer attitudes toward internet celebrities and their live streaming contents in the context of product endorsement, *J. Retailing Consum. Serv.* 52 (2020) 101934.
- [51] W.J. Brown, M.D. Basil, M.C. Bocarnea, The influence of famous athletes on health beliefs and practices: mark McGwire, child abuse prevention, and androstenedione, *J. Health Commun.* 8 (1) (2003) 41–57.
- [52] S. Zhang, et al., Do you get tired of socializing? An empirical explanation of discontinuous usage behaviour in social network services, *Inf. Manag.* 53 (7) (2016) 904–914.
- [53] R.S. Wurman, *Information Anxiety: what to Do when Information Doesn't Tellyou Whatyou Nred to Know*, Bantam, NewYork, 1990.
- [54] R. Ayyagari, V. Grover, R. Purvis, Technostress: technological antecedents and implications, *MIS Q.* 35 (4) (2011) 831–858.
- [55] J. Gao, et al., Mental health problems and social media exposure during COVID-19 outbreak, *PLoS One* 15 (4) (2020) e0231924.
- [56] E. Whelan, A.K.M. Najmul Islam, S. Brooks, Is boredom proneness related to social media overload and fatigue? A stress-strain–outcome approach, *Internet Res.* 30 (3) (2020) 869–887.
- [57] A. Luqman, et al., Empirical investigation of Facebook discontinues usage intentions based on SOR paradigm, *Comput. Hum. Behav.* 70 (2017) 544–555.
- [58] Y. Huang, et al., Connected through crisis: emotional proximity and the spread of misinformation online, in: *Computer Supported Cooperative Work*, ACM, 2015, pp. 969–980.
- [59] Jr.E.C. Tandoc, J. Jenkins, S. Craft, Fake news as a critical incident in journalism, *Journal. Pract.* 13 (6) (2019) 673–689.
- [60] L.I. Alpert, Coronavirus misinformation spreads on facebook, watchdog says; Sites with millions of facebook followers are posting bunk science and conspiracy theories, despite social-media company's efforts, *The Wall Street J. Eastern Ed.* (2020).
- [61] T. Dinev, et al., Privacy calculus model in e-commerce - a study of Italy and the United States, *Eur. J. Inf. Syst.* 15 (4) (2006) 389–402.
- [62] N.N. Bazarova, Y.H. Choi, Self-disclosure in social media: extending the functional approach to disclosure motivations and characteristics on social network sites, *J. Commun.* 64 (4) (2014) 635–657.
- [63] B.E. Weeks, et al., Incidental exposure, selective exposure, and political information sharing: integrating online exposure patterns and expression on social media, *J. Computer-Mediated Commun.* 22 (6) (2017) 363–379.
- [64] H. Li, R. Sarathy, H. Xu, The role of affect and cognition on online consumers' decision to disclose personal information to unfamiliar online vendors, *Decis. Support Syst.* 51 (3) (2011) 434–445.
- [65] A.J.T. Lee, et al., Discovering content-based behavioral roles in social networks, *Decis. Support Syst.* 59 (1) (2014) 250–261.
- [66] K. Bickerstaff, Risk perception research: socio-cultural perspectives on the public experience of air pollution, *Environ. Int.* 30 (6) (2004) 827–840.
- [67] T. Ramayah, et al., Partial Least Squares Structural Equation Modeling (PLS-SEM) Using smartPLS 3.0, Pearson, Kuala Lumpur, 2018.
- [68] J. Fang, Y. Shao, C. Wen, Transactional quality, relational quality, and consumer e-loyalty: evidence from SEM and fsQCA, *Int. J. Inf. Manag.* 36 (6) (2016) 1205–1217.
- [69] A.F. Smith, K. Hollihan, *I. Books24x, ESPN: the Company : the Story and Lessons behind the Most Fanatical Brand in Sports*, John Wiley & Sons, Hoboken, N.J, 2009.
- [70] M.L. Khan, I.K. Idris, Recognise misinformation and verify before sharing: a reasoned action and information literacy perspective, *Behav. Inf. Technol.* 38 (12) (2019) 1194–1212.
- [71] C.M. Ringle, et al., PLS path modeling and evolutionary segmentation, *J. Bus. Res.* 66 (9) (2013) 1318–1324.
- [72] J.F. Hair, et al., When to use and how to report the results of PLS-SEM, *Eur. Bus. Rev.* 31 (1) (2019) 2–24.
- [73] S.B. MacKenzie, P.M. Podsakoff, Common method bias in marketing: causes, mechanisms, and procedural remedies, *J. Retailing* 88 (4) (2012) 542–555.
- [74] R.P. Bagozzi, Y. Yi, L.W. Phillips, Assessing construct validity in organizational research, *Adm. Sci. Q.* 36 (3) (1991) 421–458.
- [75] S. Quach, et al., Toward a theory of outside-in marketing: past, present, and future, *Ind. Market. Manag.* 89 (2020) 107–128.
- [76] C. Fornell, D.F. Larcker, Evaluating structural equation models with unobservable variables and measurement error, *J. Market. Res.* 18 (1) (1981) 39.
- [77] J. Henseler, C.M. Ringle, M. Sarstedt, A new criterion for assessing discriminant validity in variance-based structural equation modeling, *J. Acad. Market. Sci.* 43 (1) (2015) 115–135.
- [78] J. Hair, M. Howard, C. Nitzl, Assessing measurement model quality in PLS-SEM using confirmatory composite analysis, *Journal of Business Research* 109 (2020) 101–110.
- [79] J. Hair, et al., *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage publications, 2016.
- [80] O. Götz, K. Liehr-Gobbers, M. Krafft, in: V. Esposito Vinzi, et al. (Eds.), *Evaluation Of Structural Equation Models Using The Partial Least Squares (PLS) Approach*, in *Handbook Of Partial Least Squares: Concepts, Methods And Applications*, Springer Berlin Heidelberg, Berlin, Heidelberg, 2010, pp. 691–711.
- [81] S. Vosoughi, D. Roy, S. Aral, The spread of true and false news online, *Science* 359 (6380) (2018) 1146–1151.
- [82] J. Shin, et al., The diffusion of misinformation on social media: temporal pattern, message, and source, *Comput. Hum. Behav.* 83 (2018) 278–287.
- [83] K. Sasahara, et al., Social influence and unfollowing accelerate the emergence of echo chambers, *J. Comput. Soc. Sci* 4 (1) (2021) 381–402.