INFORMATION PROCESSING – HEURISTIC VS SYSTEMATIC AND SUSCEPTIBILITY OF SHARING COVID 19-RELATED FAKE NEWS ON SOCIAL MEDIA

Irum Alvi
Assistant Professor, Department of Humanities, English and Applied Sciences (HEAS),
Rajasthan Technical University, Kota

Niraja Saraswat
Assistant Professor, Department of Humanities and Social Sciences,
Malaviya National Institute of Technology, Jaipur

ABSTRACT

Social media has turned into a fertile ground for COVID-19 fake news. The present study aims to provide a hypothetical and empirical background to elucidate the psychological and behavioral aspects of information processing and susceptibility of sharing the fake news, with especial reference to COVID-19 news on social media. The study explores the relation between the select variables and heuristic and systematic information processing. Grounded on prior studies, this paper presents a research model to address susceptibility of sharing the fake news on social media, and identifies characteristics that may be more susceptible than others for sharing fake news on social media including Sharing Motivation (SM), Social Media Fatigue (SMF), Feel Good Factor (FGF), Fear of Missing out (FoMO), News Characteristics (NC) and five Big Personality Traits. The data collected from 244 respondents was analyzed with the help of IBM SPSS 23, using descriptive and statistical test, including means, standard deviations, and correlation analysis conducted. Correlation exploration was utilized to study the association between the select variables and systematic and heuristic information processing and susceptibility of sharing the fake news on social media. The findings show several factors contribute to information processing in both modes. The study confirms that heuristic processing is significantly associated with susceptibility of sharing fake news. The research adds to the media studies, behavioral and psychological disciplines, as it examines the relationships between the select variables and the systematic and heuristic information processing and COVID-19 fake news on social media. The present investigation makes an innovative and original contribution to media studies by exploring the relationship between select variables and susceptibility for sharing fake news on social media. The study presents a research model to identify the influence of select variables on information processing and the susceptibility to falling prey to fake news on social media and contributes to the domain to media studies.

Keywords: Fake News, Information Processing, HSM, Personality Traits, Social Media

INTRODUCTION

Surrounded by appalling gloom, deserted roads, lost businesses, migrating laborers, doubting friends and family, distorting relationships, misconceived information, COVID-19 has put entire humanity in an unprecedented time. It is a time of Infodemic where individuals are relying more on information sharing on social media, which has brought to the fore the dark side of social media (Dhir et al., 2019; Luqman et al., 2018; Malik et al., 2020). World Health Organization expressed concern over the infodemic by stating that fake news is more dangerous than the virus itself (World Health Organization WHO (2020). The messages circulated on social media pertaining to spread and cure of COVID-19 have put more lives in danger as compared to the disease itself. The patterns of social media usage have been established to be linked with health risks (Ilakkuvan et al., 2019). By 8 October 2020, India has reported 6.84 million cases of COVID including 106 k deaths due to the pandemic. The deadly disease caused not only individual pains and shocks but also enormous economic, social, psychological and political setbacks. Relatives lost lives in isolation, near and dear ones were quarantined, jobs were snatched, health including physical and mental was negatively affected. People clad in face masks, Zoom working, shunning the touch of loved ones,

this new normal has left an indelible impression in the lives of all individuals. The virtual life proliferated reliance on digital and social media, giving sufficient scope for content sharing and generation (Verma et al., 2019). As a result, media is also shaping the lives of individuals and is also getting shaped by the current circumstances. There is a flood of information and misinformation which is devoid of reliable information. CEO of The News Project, Merill Brown, stated that the world-wide pandemic has been multiplied in stature with this "information tragedy." Director-General of WHO, Adhanom Ghebreyesus, stated that fake information about the virus was spreading at a fast pace and quite easily too which was more worrisome.

Several researchers have discussed the surge in social media users in the uncertain time of COVID-19. Researchers have also concentrated on the pervasiveness of fake news during COVID-19 and have delineated its alarming results. However, there exists a research gap as there is a paucity of research on the relationship of news characteristics, personal characteristics, information processing and their influence on vulnerability to sharing fake news. As such the present study, seeks to understand the rationale that induces individuals to share unauthenticated news. The research questions formulated are:

1. What is the relationship between the select factors and Heuristic/ Systematic information processing?
2. What is the relationship between Heuristic/ Systematic information processing and susceptibility for sharing fake news on social media?

The research paper is organized as follows: The next section delineates theoretical structure and conceptual model along with the literature review. Section three focuses on the methodology which has been opted for the investigation. Section four details the results of the study. Section five elaborates the discussion which is followed by section six on theoretical and practical implications of the study. The segment also deals with the limitations and future scope. The last section sums up the conclusion.

LITERATURE REVIEW

Fake news

Research reveals that misinformation has pervaded everything, stock values, nutrition, and vaccination (D. M. J. Lazer et al., 2018). Theoretically defining, fake news is the content, which looks similar to real news, but has some objectives which remain in garb. Donovan has argued that fake news is commonly spread by formal managerial authorities or media (2007, p. 67). Researchers have identified fake news as the compilation of articles which are false and have the capacity of misleading readers (Allcott & Gentzkow, 2017). D. M. J. Lazer has argued that fake news falls into the category of news which is akin to real news but is devoid of credibility and accuracy (2018, p. 9). While the developed world is capable of identifying and controlling fake news, India, the largest democracy and one of the most populated countries in the world has been struggling with the surge in fake news, which became a headache for the nation (Kabha et al., 2019). A variety of issues including disease, religion, politics, healthcare, and medication have contributed to the existing fake news crisis (Kadam & Atre, 2020). With a surge in fake news, the situation seems to be almost uncontrollable.

Fake News and Social Media

Surprisingly, individuals using social media are unable to locate the fake news and place all the received news in the category of real news. According to a survey, newsreaders trusted upon headlines pertaining to fake news almost 75% (Ipsos Public Affairs, 2016). People have also stated that they do not believe in particular news and at the same time share it with large groups to create an impact (Jang & Kim, 2018). Rumors have been defined as making sense in particular situations; people were believed to spread rumours which aligned with their beliefs (Allport & Postman, 1947; DiFonzo & Bordia, 2007; Rosnow, 1991). Guerin and Miyazaki (2006) suggested that rumours served the purpose of daily conversation. Social Media soon turned into a means of dissemination of misinformation, and disinformation (Sachdeva, 2019).

Sharing Motivation

Motivation has often been the main determinant to understand the use of social media. Kim et al., (2010) bifurcated motivation

into two heads of classified social motivation (proximity with friends and family) and non-social motivation (entertainment, professional advancement, and self-expression. Nov et al., (2009) pointed out two motivations for social media use namely extrinsic (self-development and reputation) and intrinsic (enjoyment and commitment). Uses and Gratification (U&G) Approach mentions four motivators. They include the eagerness to seek information, the need to socialize, the yearning for status, and entertainment (Lee & Ma, 2012; Park et al., 2009).

The hypotheses that this study will address are as follows:
H1a: There is no noteworthy relationship between Sharing Motivation (SM) and systematic information processing (SIP).
H1b: There is no noteworthy relationship between Sharing Motivation (SM) and heuristic information processing (HIP).

Social Media Fatigue (SMF)
Ravindran defines Social Media Fatigue (SMF) as an experience that is personal in nature and encapsulates anger, exhaustion, dejection, reduced energy which results from incessant involvement with social media (2014). In the seminal literature, exhaustion has been ascribed as the prime reason for dwindling physical and mental strength (Lewis and Wessely, 1992). Lee has associated SMF with exhaustion, indifference, and decreased interest in work (2016). Excessive indulgence on social media results in being prone to more faults and negative feelings of frustration and confusion (Logan et al., 2018; Zhang, 2020).

H2a: There is no noteworthy relationship between Social Media Fatigue (SMF) and systematic information processing (SIP).
H2b: There is no noteworthy relationship between Social Media Fatigue (SMF) and heuristic information processing (HIP).

Feel Good Factor (FGF)
Feel Good Factor is akin to gratification theory which proclaims the existence of social and psychological factors developing and driving the use of media (Leung, 2000). The theory has heuristic value as it facilitates intellects with clues on adoption of media and consumption (Baran 2011). Nowadays the theory is widely used to assess individual behaviour with social media viz. Facebook, twitter, microblogging (Hsu, 2015). Studies have also confirmed the varied gratifications like hedonic, utilitarian, social and content gratification (Liu, 2016). Dhir and Tsai have used Uses and Gratification theory to indicate the intensity of Facebook usage (2017).

H3a: There is no noteworthy relationship between Feel Good Factor (FGF) and systematic information processing (SIP).

H3b: There is no noteworthy relationship between Feel Good Factor (FGF) and heuristic information processing (HIP).

Fear of Missing Out (FoMO)
Self-determination theory propounded by Deci and Ryan suggests that fear of missing out emanates from insufficiency in competence and the need to belong to somebody (1985). People cling to social media to overcome weaknesses as these tend to provide informational rewards (Oulasvirta et al., 2011). Baumeister and Tice have argued that FoMO is more or less a psychological need as people feel baffled whenever they are asked to refrain from it (1990) as they seek to be popular and to relate with someone (Beyens et al., 2016), however it predicts greater negative emotions (Elhai et al., 2020). Similarly, information and news provided by media channels and agencies also transmits erratic behaviour among investors costing them money due to Investor – FoMO instead of traditional FOMO (Shiva et al., 2020).

H4a: There is no noteworthy relationship between Fear of Missing Out (FoMO) and systematic information processing (SIP).

H4b: There is no noteworthy relationship between Fear of Missing Out (FoMO) and heuristic information processing (HIP).

News Characteristics
Information can be categorized on the base of a wide range of characteristics. Some characteristics deal with the fact of different information satisfying needs of various individuals or motivation features with the use of social media. COVID-19 related original information may be considered interesting as it fulfills the curiosity of open individuals, while some vital information may serve the purpose of informing others about some specific element. Other characteristics of news

are associated with the issue of credibility and reliability (Castillo, Mendoza, & Poblete, 2011; Frost, 2002), especially sharing information, during the outbreak of pandemic, which is a challenge (Jacob, 2020). The perceived characteristics of information have been taken into account to comprehend the sharing of fake information on COVID-19 on social media.

H5a: There is no noteworthy relationship between News Characteristics (NC) and systematic information processing (SIP).

H5b: There is no noteworthy relationship between News Characteristics (NC) and heuristic information processing (HIP).

Personality Types

Openness to new experiences, extraversion, conscientiousness, agreeableness, and neuroticism are put in the category of big five personality types. The characteristics of open individuals include open mindedness, curiosity, independence, untraditional, original, brave, highly imaginative, good intellectual calibre, and creativity. They are also endowed with novelty, maintain broad perspectives, and accept differences (Costa & McCrae, 1992; Johnson & Ostendorf, 1993), make good team collaborations, generate ideas and like attention (Srivastava, 2020). Conscientiousness infers having good planning, decision making, organization skills, abiding by principles, cautiousness, and diligence (Costa & McCrae, 1992). Extraversion represents individuals' capacity for competition and self-confidence (McCrae & Costa, 1987).

Agreeable individuals are tolerant and highly forgiving and they dislike using force for any work (McCrae & Costa, 1987). Neuroticism is defined as individuals' loss of emotional balance (McCrae & Costa, 1997). Such individuals frequently feel undesirable emotions and strive to manage demanding circumstances by denial and delay (Carver & Connor-Smith, 2010).

H6a: There is no noteworthy relationship between Extraversion (E) and systematic information processing (SIP).

H6a: There is no noteworthy relationship between Extraversion (E) and heuristic information processing (HIP).

H7a: There is no noteworthy relationship between Conscientiousness (C) and systematic information processing (SIP).

H7b: There is no noteworthy relationship between Conscientiousness (C) and heuristic information processing (HIP).

H8a: There is no noteworthy relationship between Agreeableness (A) and systematic information processing (SIP).

H8b: There is no noteworthy relationship between Agreeableness (A) and heuristic information processing (HIP).

H9a: There is no noteworthy relationship between Neuroticism (N) and systematic information processing (SIP).

H9b: There is no noteworthy relationship between Neuroticism (N) and heuristic information processing (HIP).

H10a: There is no noteworthy relationship between Trust and Openness (TO) and systematic information processing (SIP).

H10b: There is no noteworthy relationship between Trust and Openness (TO) and heuristic information processing (HIP).

Information Processing

The heuristic-systematic information processing model (HSM) suggests that individuals to reach judgment will use either one or the two of these processing modes of information. The model portrays two co-occurring and parallel modes of information processing which decide social judgments and attitudes of people (Chen & Chaiken, 1999). Systematic processing is the model wherein message-dependent reasoning shows to play a vital role in constructing an opinion about the evidence (Chaiken, 1987). It essentially needs good amount of motivation, cognitive resources, as well as ability (Chen & Chaiken, 1999). Contrary to it, heuristic processing encapsulates cognitive shortcuts and easy clues to reach a judgment (Chaiken, 1980; Metzger & Flanagin, 2015; Trumbo, 1999).

To arrive to an accurate conclusion, the systematic mode of authenticating info and sources is suitable, so this mode gets thoroughly related to deliberations (Griffin, Neuwirth, Giese, & Dunwoody, 2002); however, for unimportant issues, such as entertaining news, heuristics information processing is also sufficient (Chen & Chaiken, 1999; Metzger, 2007). Heuristic and systematic processing can co-exist in select patterns.

Guadagno and Cialdini believe that persuasion is the prime element to affect social media processing (2005). The credible and cogent communication yields desirable results if the message is suited as per the needs of the users (Petty and Cacioppo, 1986). The current study holds that individuals using social media are susceptible to share COVID-19 fake news because they lack the capability to analyze any message on social media with enough circumspection. Accordingly Elaboration Likelihood Model (ELM), and the Heuristic-Systematic are popular persuasion theories and models (Luo et al., 2013; Valecha et al., 2015; Vishwanath, 2015b; Vishwanath et al., 2018; Zhang et al., 2012).

Persuasion research in social psychology has given birth to HSM model (Eagly and Chaiken, 1993); the model endeavors to elaborate info processing and attitude development in persuasive contexts. Both models are significant and persuasive for patterns (Crano and Prislin, 2006). Both models recommend the systematic and heuristic route to persuasion. ELM model, deliberated by Petty and Cacioppo (1986), deals with rational processing, and its impacts on dishonesty (Vishwanath et al., 2011). The underlining dissimilarity amid them is that the HSM approves that the two modes of info-processing can co-exist, while the ELM proposes that such a processing takes place on a continuum.

Candidly, systematic processing should be the chosen mode when individuals are using social media actively. However, this involves more time, effort, and intellectual resources. The users may be seeking information due to their curiosity to know more about COVID-19. Keeping it in mind, individuals may restrict systematic processing except when compelled to use it (Chen et al., 1999). If they deem to ensure the reliability of any news on COVID-19, on a social media platform, as taking too much time, unimportant or difficult, they may opt for heuristic processing. In addition, personality traits also play a role in these decisions.

Thus, the current paper addresses the research gap in the literature.
H11: There is no noteworthy relationship between systematic information processing (SIP) and Susceptibility of Sharing COVID-19 Fake News (SSCFA).

H12: There is no noteworthy relationship between heuristic information processing (HIP) and Susceptibility of Sharing COVID-19-related Fake News (SSCFA).

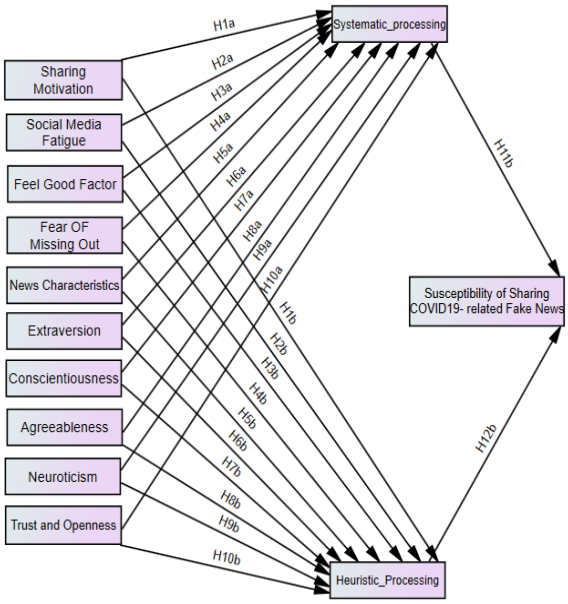


Fig. 1 Conceptual Model Authors' Own

The proposed conceptual model, shown in Fig. 1, consists of three main components, select variables including Sharing Motivation (SM) for COVID-19 related news on social media, Social Media Fatigue (SMF) resulting from excessive COVID-19 related news, Feel Good Factor (FGF) experiences based on sharing COVID-19 news, Fear of Missing out (FoMO), News Characteristics (NC) and five Big Personality Traits, and two information processing and their association with Susceptibility of Sharing COVID-19 related Fake News (SSCFA) with hypothesized associations.

METHODOLOGY

Sample, data collection and Pilot Study

The research design used in the study is Descriptive and Exploratory. It is descriptive as it aims at describing the characteristics as well as exploring and explaining the relations between the select factors. It is exploratory as it aims at exploring the problem to provide insights into and comprehension for more precise investigation for fake news sharing. Convenience sampling (Tredoux & Durrheim, 2013; Salkind, 2014), (N = 244) was used for the present study. The sample consisted of an enthusiastic, manageable and convenient population of students studying in institutes in the State of Rajasthan. The final data was collected in first quarter of the year 2020, and comprised of a total of 244 respondents, 185 males (75.8%). and 59 females (24.2 %).

The respondents' mean age was 20.3 years (S.D. = 4.41). These students are more susceptible to fall prey to sharing COVID-19 related news without verifying and authenticating the data.

A pilot study was conducted with a sample size of 30 to confirm that the instrument was consistent. Feedback was sought from the respondents and any difficulties in interpretation of the items were removed e.g. 'I feel blue', which seemed difficult to be comprehended by the respondents was further explained by using similar meaning words such as sad, unhappy etc. Secondly, the respondents were told that there was no obligation, and there were no correct or incorrect answer to any of the questions. Moreover, they were informed that they could withdraw any moment from the survey. They were also informed about the purpose of the study in the description of the Google form used for information gathering.

Data analysis

The instrument consisted of 73 items. It consisted of three sections, section A demographics, section B on COVID-19 news and attitudes, and section C on personality traits. The instrument utilized a five-point Likert scale (1 = Disagree strongly to 5 = Agree strongly). The SPSS application (IBM SPSS version 23) was utilized for analyzing the data, calculating means, standard deviations, inner consistencies, correlation analysis. Correlation exploration was utilized to study the association between the select variables and systematic and heuristic information processing.

KMO and Bartlett's test

The Kaiser- Meyer–Olkin (KMO) Test estimates the sample adequacy and shows whether the responses are adequate. The values above 0.5 are considered satisfactory. The KMO value for the present sample is 0.893 which is satisfactory (Table 1).

Table 1

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	11628.543
	Df	2346
	Sig.	.000

Source: Authors' Calculation

The Bartlett's test is a clue of the strength of the relations among variables. Bartlett's test of Sphericity is also found significant at 0.01 level which specified correlations amid the items are satisfactorily large for Exploratory Factor Analysis.

Factor Analysis

Exploratory Factor Analysis (EFA) was used for data reduction and the exploration of the probable fundamental factor structure of any given set of observed variables without arresting a preconceived structure on the outcome. The principal component extraction method and Varimax rotation were used. An initial analysis was done to obtain Eigenvalue over 1. In combination, 68.558% and 54.144% of the variance was explained. EAF resulted in extraction of 13 homogeneous sub-scales with the Eigenvalues above 1. For further study, 14 items with loadings below 0.5 were removed.

Instrument measures

Table 2 shows the Descriptive Statistics, Factor Loadings, and Cronbach's Alpha, as well as the source from where the items or constructs were adopted/adapted/modified.

Table 2 Descriptive Statistics, Factor Loadings and Cronbach's Alpha

Component	Item	Mean	S.D.	Factor Loadings	Cronbach's Alpha (Number of items)	Adopted/ adapted/ modified from Source
Sharing Motivation COVID-19 related News on Social Media (SM)	SM1	3.857	1.0304	.781	.921 (11)	Chen, 2016
	SM2	3.914	1.0328	.765		
	SM3	3.906	.9403	.759		
	SM4	3.898	.9172	.683		
	SM5	3.893	.9009	.674		
	SM6	3.885	1.0320	.671		
	SM7	3.852	1.0476	.664		
	SM8	3.844	1.0620	.657		
	SM9	3.561	1.1655	.646		
	SM10	3.566	1.0810	.617		
	SM11	3.668	1.0386	.606		
News Characteristics (NC)	NC1	3.635	1.0194	.771	.896 (7)	Chen, 2016
	NC2	3.303	1.1359	.751		
	NC3	3.582	1.0950	.748		
	NC4	3.783	.9718	.714		
	NC5	3.574	1.0690	.713		
	NC6	3.418	1.0684	.694		
	NC7	3.807	.9812	.642		
Trust and Openness (TO)	TO1	2.893	1.2624	.763	.868 (5)	Fang et al., 2016
	TO2	2.898	1.2933	.756		
	TO3	2.893	1.2785	.754		
	TO4	2.902	1.2300	.709		
	TO5	2.909	1.2061	.672		
Fear of Missing Out (FoMO)	FoMO1	2.803	1.1908	.850	.931 (4)	Przybylski et al., 2013
	FoMO2	2.824	1.2094	.839		
	FoMO3	2.832	1.2106	.802		
	FoMO4	2.889	1.2104	.765		
Feel Good Factor (FGF)	FGF1	3.262	1.2056	.722	.859 (4)	Gratification needs (Lee & Ma, 2012)
	FGF2	3.266	1.2098	.687		
	FGF3	3.344	1.1847	.634		
	FGF4	3.111	1.2340	.631		
Systematic Information Processing (SIP)	SIP1	3.984	.9978	.794	.810 (4)	Griffin et al., 2002; Vishwanath et al., 2011
	SIP2	3.959	1.0572	.721		
	SIP3	3.721	1.0754	.711		
	SIP4	3.816	1.0278	.651		
Social Media Fatigue (SMF)	SMF1	3.357	1.0734	.836	.815 (3)	Karasek, 1979
	SMF2	3.357	1.0999	.776		
	SMF3	3.340	1.1125	.720		
Heuristic Information Processing (HIP)	HIF1	2.623	1.2295	.851	.916 (2)	Griffin et al., 2002
	HIF2	2.627	1.2653	.765		

Component	Item	Mean	S.D.	Factor Loadings	Cronbach's Alpha (Number of items)	Adopted/ adapted/ modified from Source
Neuroticism (N)	N1	2.467	1.1524	.649	.781 (6)	Donnellan, Oswald, Baird & Lucas, 2006
	N2	3.090	1.1074	.648		
	N3	3.184	1.1876	.621		
	N4	3.407	1.3340	.618		
	N5	3.074	1.1523	.550		
	N6	2.730	1.0024	.508		
Agreeableness (A)	A1	3.832	.8891	.795	.760 (4)	Donnellan, Oswald, Baird & Lucas, 2006
	A2	3.889	.9163	.756		
	A3	3.725	1.0356	.746		
	A4	3.537	.9267	.591		
Conscientiousness (C)	C1	2.939	1.2307	.729	.670 (3)	Donnellan, Oswald, Baird & Lucas, 2006
	C2	2.816	1.2318	.688		
	C3	3.094	1.2219	.539		
Extraversion (E)	E1	2.943	1.1604	.750	.663 (3)	Donnellan, Oswald, Baird & Lucas, 2006
	E2	3.062	1.2333	.702		
	E3	3.103	1.1507	.512		
Susceptibility of Sharing COVID19- related Fake News (SSCFA).	SSCFA	2.848	1.2756	.601	(1)	Authors own

Source: Authors' Calculation

Reliability Tests

Cronbach's alpha is a coefficient of internal consistency, which postulates the items of the instrument related to a dimension are internally consistent; therefore they may be used to quantify the same. An α value 0.6-0.7 designates an adequate level of reliability, and 0.8 or larger a very decent level. Though, values greater than 0.95 are not considered worthy, due to redundancy (Hulin, Netemeyer, and Cudeck, 2001). The values ranged from 0.663 to 0.921 for the subscales which indicated good internal consistency of each variable.

RESULTS

Correlation analysis was employed to gauge the relationship between select variables and information processing - heuristic and systematic as shown in Table 3.

Table 3 Relationship between Select Variables and Information Processing

		Heuristic Information Processing (HIP)	Systematic Information Processing (SIP)
Sharing Motivation (SM)	**Pearson Correlation**	.207**	.437**
	Sig. (2-tailed)	.001	.000
	N	244	244
Social Media Fatigue (SMF)	**Pearson Correlation**	.401**	.269**
	Sig. (2-tailed)	.000	.000
	N	244	244
Feel Good Factor (FGF)	**Pearson Correlation**	.473**	.254**
	Sig. (2-tailed)	.000	.000
	N	244	244
Fear of Missing Out (FoMO)	**Pearson Correlation**	.661**	.110
	Sig. (2-tailed)	.000	.086

	N	244	244
News Characteristics (NC)	**Pearson Correlation**	.280**	.429**
	Sig. (2-tailed)	.000	.000
	N	244	244
Extraversion (E)	**Pearson Correlation**	.526**	.135*
	Sig. (2-tailed)	.000	.035
	N	243	243
Conscientiousness (C)	**Pearson Correlation**	-.490**	-.009
	Sig. (2-tailed)	.000	.892
	N	244	244
Agreeableness (A)	**Pearson Correlation**	.017	.485**
	Sig. (2-tailed)	.787	.000
	N	244	244
Neuroticism (N)	**Pearson Correlation**	.527**	.123
	Sig. (2-tailed)	.000	.056
	N	243	243
Trust and Openness (TO)	**Pearson Correlation**	.668**	.148*
	Sig. (2-tailed)	.000	.021
	N	243	243
Susceptibility of Sharing COVID19- related Fake News (SSCFA)	**Pearson Correlation**	.529**	.058
	Sig. (2-tailed)	.000	.366
	N	244	244

**Significance at 0.01 level (2-tailed) * Significance at 0.05 level (2-tailed)

Source: Authors' Calculation

Analyzing Relationship between the Selected Variables and Information Processing

A Pearson product-moment correlation coefficient was administered to quantity the relationship between Sharing Motivation (SM) and information processing. A significant relation of r = .207, (p < .01) and a stronger significant relation of r = .437, (p < .01) was found between Sharing Motivation (SM) and HIP and SIP respectively. Hence, the hypotheses H1a and H1b were rejected. Social Media Fatigue (SMF) and information sharing were found to be related significantly and positively r =.401, (p < .01) and r = .269, (p < .01) for HIP and SIP respectively. The hypotheses H2a and H2b were rejected at 0.01 levels. After conducting a correlation analysis, a weak relation was established between Feel Good Factor (FGF) and SIP r = .254, (p < .01); and a stronger relationship was discerned between FGF and HIP r = .473, (p < .01). Both hypotheses H3a and H3b were rejected. After conducting a correlation test, a fairly strong relation was established between FoMO and HIP r = .661, (p < .01); No significant correlations were found between FoMO and SIP. Hence, the hypothesis H4a was accepted, while hypothesis H4b was rejected. Between News Characteristics (NC) and SIP, a correlation analysis exhibited a significant moderate coefficient of r = .429, (p < .01) and between News Characteristics (NC) and HIP a weaker positive but significant coefficient r = .280, (p < .01). The hypotheses H5a and H5b were rejected at 0.01 levels.

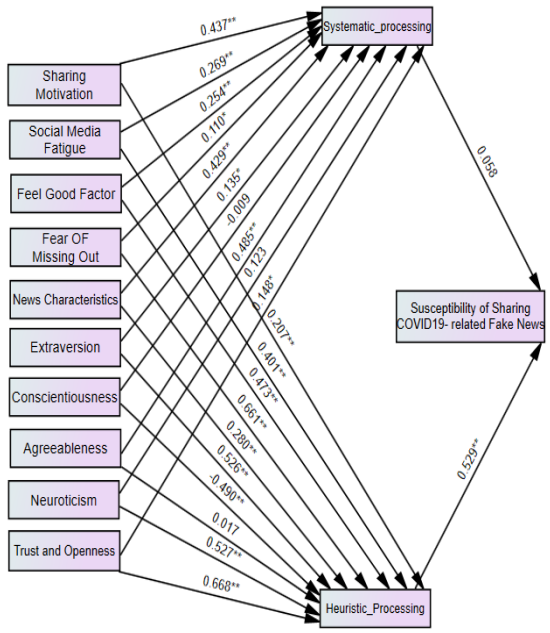
Analyzing Relationship between the Selected Personality Traits and Information Processing

Extraversion (E) and information processing were found to be associated, with the coefficient r=.526, (p < .01) for HIP, and .135, (p < .05) for SIP. So, the hypotheses H6a and H6b were rejected. For Conscientiousness (C) and Information processing, the correlation coefficient (r) was established to be negative but significant for HIP r=-.490, (p<.01), while Conscientiousness was not found be significantly related with SIP. Hence, Hypothesis H7a was accepted, hypothesis H7b was rejected. Agreeableness (A) was found to be connected to Systematic Information processing (SIP), r = .485, (p < .01) but no significant relation could be established with HIP. Hence, the hypothesis H8a was rejected and H8b was accepted. In the case of personality trait Neuroticism (N), the

correlation coefficient r= .527, (p < .01) was found to be statistically significant for HIP, and not significant for SIP. Hence, the hypothesis H9a was accepted, but H9b was rejected. Trust and Openness (TO) and information processing showed correlation r(242) = .668, p < .01 for HIP and r(242) = .148, p < .05 for SIP respectively. The hypotheses H10a and b, both were rejected. However, it is clear from the results that the relationship between TO was stronger with heuristic information processing.

Analyzing Relationship between Information Processing and Susceptibility of Sharing COVID-19 related Fake News (SSCFA)

The relationship between HIP and Susceptibility of Sharing COVID-19 related Fake News (SSCFA) was found to be positively significant, r =.529, n = 244, p < .01. As such, the hypothesis H11 was accepted, while, there was no relationship between the SIP and the Susceptibility of Sharing COVID-19 related Fake News (SSCFA). The hypothesis H12 was rejected.



** Significance at 0.01 level (2-tailed)
* Significance at 0.05 level (2-tailed)
Fig. 2 Research Model

Fig. 2 represents the relationships between the ten select variables, and information processing and Susceptibility of Sharing Fake News (SSCFA).

DISCUSSION

The present study aims to provide a hypothetical and empirical background to elucidate the psychological and behavioral aspects of information processing and susceptibility of sharing the fake news, with especial reference to COVID-19 news on social media. The study identified some of the select variables have significant associations with information processing, which may lead to susceptibility towards forwarding fake news on social media. The results showed certain traits influenced information processing and sharing in both modes. Besides, the findings suggest that information processing is influenced by Sharing Motivation (SM) and COVID-19 News Characteristics (NC) and Feel Good Factor (FGF) which were found to be statistically significant for both types of information processing. The findings confirm behaviors may be impacted by situations and environments (McAndrew, 2018). The relationships between Sharing Motivation (SM), Social Media Fatigue (SMF), Feel Good Factor (FGF), Fear of Missing Out (FoMO), and News Characteristics (NC) with information processing were found to be positive.

Social Media Fatigue SMF influences HIP positively. It may be argued that fatigue makes the users less disposed to validate news before sharing COVID-19 fake news. As inclinations are connected to beliefs and beliefs are connected to actions (Heiphetz et al., 2013), fatigue induces the intent to share info associated with preconceived notions (Marwick, 2018). Moreover, FoMO was also found to be strongly related to heuristic processing of information. FoMO can aggravate unwanted conduct (Baumeister et al., 2005). As such, excessive exposure to COVID-19 fake news, and social media and FoMO may result in sharing fake news on social media.

The extraverts act impulsively and resort to heuristic processing and sharing of COVID-19 fake news. Lawson et al. (2017) confirm that extraversion foretells susceptibility. However, extraversion was found to be weakly but significantly related to SIP as per the results. Conscientiousness was negatively statistically significant for heuristic processing, indicating that conscientious people do not process information heuristically and do not indulge

in fake news sharing, which confirms findings by Albladi and Weir (2017) and Parish et al. (2009).

Agreeableness was found to exert an affirmative influence on systematic processing. An agreeable person is open-minded, accommodating, and cooperative; such a person does not indulge in forwarding fake news. Enos et al. (2006) affirm agreeable people are more perceptible of lies, although Modic and Lea (2012) contend agreeable individuals are vulnerable to deception as they tend to have trust in ambiguous circumstances. The results indicated that neuroticism is statistically significant for heuristic processing. Cho et al. (2016) affirms that the agreeable and neurotic traits impact decision-making, by influencing how information is perceived.

Results reveal that openness influences information processing. Openness breeds curiosity which might promote heuristic information processing. Kreitz et al. (2015) and Pattinson et al. (2011) affirm that open-minded people are better at perceiving fakeness. Finally, with regards to HIP and Susceptibility of Sharing COVID-19 related Fake News (SSCFA), there was found a positive strong relation, while there was no such association between systematic processing and susceptibility of COVID-19 fake news sharing.

Theoretical and Practical Implications

The present study has practical and theoretical implications for researchers and policymakers. The study asked appropriate questions about the susceptibility to sharing COVID-19 fake news on social media, which has very dangerous and serious repercussions. Therefore, understanding the various variables and their relationship with sharing fake news offers insight and knowledge which may assist in overcoming the problem.

Limitations of the Study and Future Scope

The study offers insight for research; it also has its own limitations. Issues causing an impact on the generalization of the findings e.g. sample size, location, sampling method etc. Another drawback is that the study relied completely on self-reported assumptions. Thus, outcomes dependent on the nature and number of the respondents, and may not be representative of the general public. Thus, it is desirable to confirm these findings using more varied and larger samples for which more research is undeniably needed. For future research it might also be interesting to explore further these relationships and to explore other factors. As such, a number of priorities for future research arise from the present study.

CONCLUSION

This investigation offers a conceptual model that can assist in detecting the characteristics of news and of users who are vulnerable to sharing COVID-19 related fake news on social media which is an original and essential step towards combating it. Earlier studies have found conflicting results as to personality traits and their relationship with susceptibility of sharing fake news. Essentially, the present study uncovered that not only the Big Five personality traits but also factors such as News Characteristics (NC), Sharing Motivation (SM), Social Media Fatigue (SMF), Feel Good Factor (FGF) are associated with both heuristic and systematic information processing, but Fear of Missing Out (FoMO) is associated only with heuristic processing. The personality traits Extraversion (E) and Trust and Openness (TO) were found to influence information processing in both modes. Moreover, Agreeableness (A) is related to systematic processing. Conscientiousness (C) and Neuroticism (N) are related with heuristic information processing, but Conscientiousness exerts a negative influence on it. The investigation additionally affirmed that heuristic processing altogether is related with susceptibility of forwarding COVID-19 fake news on social media.

Although extant literature has specified that several factors including personal traits influence susceptibility share fake news and focused on the manner of information processing can sway vulnerability to it. The present investigation makes an innovative and original contribution by uniting diverse and divergent research areas, especially media studies and behavioral science and psychology for better comprehending the relationship of select variables to sharing COVID-19 fake news on social media. The study also presents a novel research model to identify the influence of select variables on information processing and the susceptibility to falling prey to fake news on social media.

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