

# Impact of Personality Traits on Information Literacy During Crisis

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**Abstract.** Information from multiple sources can lead to information overload, provoking negative psychological and behavioural reactions. During crisis situations, questions about information behaviour become particularly relevant, as the changes in people's behaviour are explored. When analysing the issue of people's informational behaviour in crisis situations, attention is also paid to the influence of personality traits on the choice of information search strategy and trajectory. The purpose of the study was to identify and appraise studies investigating the relationship between the Big Five personality traits (BFPT) and information-seeking behaviour (ISB). The systematic review of foreign literature revealed that neurotics deliberately avoided information that 'threatens' their feelings of happiness and well-being. High levels of extraversion, agreeableness, conscientiousness, and openness predict greater achievement when working with information. Unfortunately, none of the recent researches take an in-depth look at the issue regarding ISB during crises and its potential conjunction with BFPT. The literature review would potentially help to develop further studies and fill the gap.

**Keywords:** information seeking behaviour, Covid-19, personality traits, Big Five personality traits, decision-making, disinformation

## Introduction

Crises and disasters disrupt our routines, thereby determining our informational behaviour, which becomes more dynamic, sometimes even chaotic, while focusing on fixing the problem in order to withstand and overcome the crisis. The Covid-19 crisis introduced uncertainty and lack of stability, which was the reason for various activities revolving around information. Information-seeking is one of the most important proactive behaviours that can be used in order to reduce uncertainty and create space for decision-making. People's information-related activity becomes more complex in case of high-risk or crisis

situations: some actively seek and process information, while others deliberately avoid it. The traditional research paradigm has been limited by focusing on variables rather than on individuals.

Only few theoretical models help to understand people's information activities in high-risk or crises conditions. There are several studies that use person-centred approach to detect individual differences in changing trajectories of information-seeking behaviour (ISB) and decision-making. For the analysis of the research level, systematic searches of four databases (*Web of Science*, *Scopus*, *Taylor & Francis*, *Science Direct*) were conducted. Studies conducted from 2018 to 2022 involving mixed-type methods, analysing the impact of Big Five personality traits BFPT on ISB and decision-making have been included in preparation of the current report. Relationships between personality traits and ISB have long occupied many scholars. BFPT model is also known as OCEAN model, containing five major components: Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism. Each of these groups combines the features of a smaller scale – primary factors:

- Conscientiousness includes prominent level of thoughtfulness. Conscientious individuals are good at impulse control and are goal-oriented;
- Extraversion includes sociability, talkativeness and considerable amount of emotional expressiveness;
- Openness refers to one's intention to strive for society and admission of abstract concepts;
- Neuroticism refers to emotional stability/instability, sensitivity, nervousness, anxiety, irritability;
- Agreeableness is related to prosocial behaviour. Individuals with a high agreeableness level tend to cooperate and have great deal of interest in other people (Barman, Conlan 2021, 2).

## Results

Researchers from Peking University, Beijing, China, observed how BFPT correlated with the individual information seeking trajectories (Zhang *et al.* 2021). It was the first study with person-centred perspective to investigate BFPT with information-seeking trajectories. By applying latent growth mixture model, four major information-seeking behaviour trajectories were viewed: high or low maintaining, downward or upward. The study results show that only openness and agreeableness are the personality traits that have an impact on high maintaining trajectories. When following downward trajectories, a strong association with extraversion was revealed. According to the study, agreeableness at initial stage helps to maintain a high level of information seeking, however, openness is associated with consistent information seeking (Zhang *et al.* 2021).

Another study identified those individual BFPT, which had a significant effect on ISB. It was conducted by researchers from King Mongkut's University of Technology Thonburi, Bangkok, Thailand. The study showed that openness to experience followed by conscientiousness had a significant effect on ISB. High levels of extraversion, agreeableness, conscientiousness and openness predicted higher achievement, thus positively correlating with academic achievement. Neuroticism negatively correlated with ISB. BFPT combined with gender also had an effect on ISB. Data analysis indicated that females with any of the five BFPT had higher ISB mean scores than males (Charoenkul, Chanchalor 2021).

Scholars have done much to chart the landscape of fake news, less is known about how much people believe this news and why. With the rise of fake news and fast-paced spread thereof during Covid-19 pandemic, BFPT was also used to investigate the information users creating and sharing fake news via social networks (Coates *et al.* 2021). It has been specified that whether a news item is true or fake is not the only factor in a user's decision to share it. For instance, personality traits cause an increase in the number of views per share, irrespective of whether the news item is true or not. However, when implementing a fact-checker, the personality traits of people work against the countermeasures. It was concluded that individuals with a high level of consciousness cope well with information overload and are able to gather the large amount of information (Coates *et al.* 2021). Overall, the researchers admit that the minimal statistically significant effect of BFPT on the spread of fake news exists. It was concluded that there may also be hidden effects of personality traits that do not directly affect the spread of fake news, but that may interfere constructively or destructively with other mechanisms or phenomena.

Another research from the University of California has been developed to understand the role of news source cues and the individual characteristics and traits that shape the trustworthiness of news. It was hypothesized that users' personalities affect the ways and reasons why fake news spread. The study results showed that openness and low level of consciousness positively correlated to the intention to believe fake news, while a high extraversion provoked sharing significantly more information and people with this personality type had more followers than other personality types. The data analysis revealed that the only significant BFPT trait to positively influence trustworthiness of fake news was conscientiousness. Those who have a lower conscientiousness level are more likely to believe in fake news articles (Coe 2018). The results paint a picture of the type of person that would be likely to believe in fake news, taking into account their political knowledge and status, social media user habits, trust in media, etc.

Exploring the relationship between BFPT and online rumour spread during Covid-19 pandemic, the researchers from Guangxi University, Nanning, China

established that individuals who had a high level of extraversion and conscientiousness were more likely to experience fears associated with Covid-19. All of the aforementioned personality traits were found to have an impact on the fear of Covid-19 and decision-making, while agreeableness helped to experience less fear (Li *et al.* 2022).

## Conclusions

Crisis situations create restlessness and anxiety, which encourage imminent information gathering, while correct search strategies are not always chosen for that purpose. Neurotics deliberately avoid information that ‘threatens’ their feelings of happiness and well-being. High levels of extraversion, agreeableness, conscientiousness, and openness predict greater achievement when working with information. Conscientiousness and openness to experience contribute to significantly better information search results. Openness to experience positively correlates with successful information management, while neuroticism contributes to negative experiences. The main ‘producers’ of fake news are neurotics, while the ‘benevolent types’ are those who are most affected by misleading content, especially if it evokes empathy. In the majority of the reviewed studies, it was admitted that future research should take into account more situational factors (education, political views, social support, parenting styles). Unfortunately, none of the recent researches take in depth look at the issue regarding ISB during crises and its potential conjunction with BFPT.

Considering future research, the factor of well-being also could have an impact on information seeking trajectories and ISB. Likewise, ISB may be motivated by multiple psychological factors and differences. The gained insights further the previous understanding of how BFPT impacts the ISB, especially during disinformation, and shed light on the important roles of personality traits in decision making. In particular, the results can be potentially used for public awareness campaigns during infodemic.

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