RUMOUR RESPONSE STRATEGY AND BEHAVIOURAL INTENTION: THE MEDIATING ROLES OF ANXIETY AND GOVERNMENT REPUTATION DURING COVID-19 "INFODEMIC" IN CHINA

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by

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LIST OF ABBREVIATIONS

ANX	Anxiety
CNNIC	China Internet Network Information Center
GR	Government Reputation
PHEIC	Public Health Emergency of International Concern
RBI	Behavioural Intention to Reduce Consumption of Rumour-related Products
RDI	Rumour Dissemination Intention
SCCT	Situational Crisis Communication Theory
WHO	World Health Organization

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STRATEGI RESPONS KHABAR ANGIN DAN NIAT TINGKAH LAKU: PERANAN PENGANTARA KEBIMBANGAN DAN REPUTASI KERAJAAN SEMASA "INFODEMIK" COVID-19 DI CHINA

ABSTRAK

Populariti media sosial yang semakin berkembang menyebabkan penyebaran pengetahuan fakta dan khabar angin yang tidak dapat dielakkan lagi. Secara khususnya, banyak khabar angin isu kesihatan telah tersebar di platform digital disebabkan oleh pandemik COVID-19 di peringkat global. Badan kerajaan yang berkaitan seharusnya menyampaikan maklumat awam secara proaktif bagi mempengaruhi tingkah laku dan penglibatan individu dalam pengambilan keputusan semasa berlakunya krisis kesihatan yang serius. Justeru itu, strategi respon khabar angin yang betul perlu diambil oleh pihak kerajaan bagi mengelakkan reaksi negatif dalam masyarakat. Terdapat tiga objektif utama kajian ini: (i) mengenal pasti strategi tindak balas khabar angin kerajaan yang paling berkesan untuk menangani khabar angin semasa berlakunya krisis kesihatan; (ii) mengkaji peranan kebimbangan dalam proses tersebut; dan (iii) mengkaji peranan reputasi kerajaan dalam proses tersebut. Teori Komunikasi Krisis Situasi (SCCT) berfungsi sebagai asas teoritikal untuk kajian berdasarkan teori. Data eksperimen tinjauan dalam talian telah diperoleh daripada 245 orang peserta di China yang terdedah kepada dorongan khabar angin palsu di media sosial berkaitan khabar angin bahawa kerepek kentang boleh menyebarkan wabak Covid-19. Para peserta kajian dikelaskan kepada salah satu daripada tiga strategi tindak balas khabar angin: penafian, sangkalan, dan serangan. Keputusan ANOVA sehala mendedahkan bahawa kesan respon penyangkalan menyebabkan niat penyebaran khabar angin paling rendah. Respon penyangkalan juga menyebabkan niat

paling rendah untuk menggunakan produk berkaitan khabar angin. Ia juga mengurangkan kebimbangan dan meningkatkan reputasi kerajaan berbanding strategi penafian dan serangan. Tambahan pula, hasil model pengantaraan menggunakan PROCESS Macro menunjukkan bahawa kebimbangan dan reputasi kerajaan menjadi pengantara hubungan antara strategi respon khabar angin dan niat penyebaran khabar angin serta niat tingkah laku untuk menggunakan produk berkaitan khabar angin. Strategi penyangkalan berbanding strategi penafian dan serangan telah mengurangkan kebimbangan orang ramai dengan ketara, yang seterusnya mengurangkan niat untuk menyebarkan khabar angin dan niat untuk menggunakan produk berkaitan khabar angin. Strategi penafian telah meningkatkan reputasi kerajaan dengan ketara berbanding strategi penafian dan serangan, yang seterusnya mengurangkan niat untuk menyebarkan khabar angin dan niat untuk menggunakan produk berkaitan khabar angin. Kesimpulannya, kajian eksperimen tinjauan ini menyumbang kepada keilmuan semasa berkaitan isu khabar angin Covid-19 dalam konteks strategi respon khabar angin berkaitan kerajaan di media sosial.

RUMOUR RESPONSE STRATEGY AND BEHAVIOURAL INTENTION: THE MEDIATING ROLES OF ANXIETY AND GOVERNMENT REPUTATION DURING COVID-19 "INFODEMIC" IN CHINA

ABSTRACT

The rising popularity of social media has inevitably led to the dissemination of both factual and truthful information as well as rumours. Specifically, numerous health rumours have circulated on digital platforms following the global COVID-19 pandemic. Relevant government bodies must proactively convey public information to influence individuals' behaviour and subsequent involvement in emergency decision-making during a major health crisis. As such, the right rumour response strategy must be used by the government to avoid negative reaction from the public amidst a major health crisis. This study was based on three key objectives: (i) to identify the most effective government rumour response strategies to address rumours during a health crisis; (ii) to examine the role of anxiety in this process; (iii) to examine the role of government reputation in the process. The Situational Crisis Communication Theory (SCCT) served as the theoretical foundation of the study. Online survey experimental data were collected from 245 Chinese participants, who were exposed to a false social media rumour stimulus that potato chips could spread Covid-19. Notably, the participants were subjected to one of the three following rumour response strategy: denial, refute, and attack. The one-way ANOVA results revealed that the impact of the refutation response led to the lowest rumour dissemination intention. The refutation response also led to the lowest behavioural intention to consume rumour-related products. It also reduced anxiety and led to the

highest government reputation compared to denial and attack strategies. Furthermore, the mediation model outcomes with PROCESS Macro highlighted that anxiety and government reputation mediated the relationship between the rumour response strategy and the rumour dissemination intention; and the behavioural intention to consume rumour-related products. The refutation strategy compared to denial and attack strategies significantly reduced public anxiety, which in turn decreased the intention to disseminate rumours and the intention to consume rumour-related products. The refutation strategy compared to denial and attack strategies significantly increased government reputation, which in turn decreased the intention to disseminate rumours and the intention to consume rumour-related products. Overall, this survey experimental study expanded the current body of knowledge on Covid-19 rumours in the context of government rumour response strategies in social media.

CHAPTER 1

INTRODUCTION

1.1 Background of The Study

A rumour is an unsubstantiated or ambiguous information pertaining to things, people, or circumstances (Allport & Postman, 1948). Alternatively, some researchers have defined rumours as a type of theory that reflects people's preconceptions or suspicions about how the world works (Rosnow & Kimmel, 2000, as cited in DiFonzo & Bordia, 2007). However, such ambiguous messages may result in disastrous consequences. In 2012, thousands of people from northeast India were fleeing the southern city of Bangalore amid rumours that they would be attacked in retaliation for communal violence in their home state (Srivasta & Kurup, 2012). Rumours were sent via text message, informing that there would be an act of violence against people from north-east India in the near future. This led to a large-scale flight of related people, which had a great negative impact on the normal life order of the city. Rumours distort facts, contribute to the dissemination and consumption of false information that contradicts scientific experts and evidence, and result in negative outcomes (Sell et al., 2020).

The existing literature has identified several synonyms with similar (albeit unidentical) connotations for the word rumour, such as misinformation, disinformation, and fake news. The first pair of synonyms is misinformation and disinformation. Southwell et al. (2019) implied that misinformation was information that was completely false, although some scientists have defined the term as referring to unintentionally false information, while disinformation denotes information that is deliberately false (Scheufele & Krause 2019; Thai, 2020). Tandoc et al. (2017) also characterized misinformation as the sharing of false information, and disinformation

as the deliberate creation and sharing of false information. Fake news, which implies "news stories that are intentionally and verifiably false and can confuse readers" (Allcott & Gentzkow, 2017), previously involved news parodies, political satires, and news propaganda. Several scholars have highlighted six types of fake news: news satire, news parody, news fabrication, photo manipulation, advertising and public relations, and propaganda (Tandoc et al., 2017). In this regard, fake news denotes information that is clearly false, and is therefore similar to misinformation.

Some views argue that misinformation and disinformation are elements of "fake news," defined by scholars as fabricated information that mimics news media content in form but not in organizational process or intent (UNHCR, 2022). On the other hand, rumours are neither good nor bad. They can be true, false, or partly true (DiFonzo & Bordia, 2007). However, in most studies, the study of rumours is based on the distortion of rumours into the truth (Sell et al., 2020). In other words, rumour, misinformation, and fake news are used as metaphors for falsity or distortion colloquially (Donovan, 2007). Therefore, there are many studies that have used these terms interchangeably (Salehinejad et al., 2021; Pian et al., 2021). The definitions of these terms are not entirely clear to scholars in different disciplines (Jia, 2020). This is why many rumour-related studies have addressed similar social phenomena but used different terms. Clearly, past studies were found to use the terms mis/disinformation, fake news and rumours interchangeably. Hence, the present study uses the term rumours to refer to unsubstantiated or unconfirmed information.

The popularity of social media and the subsequent increase in the number of consumers of digital news have accelerated the spread of rumours over the past decade (Vosoughi et al., 2018). An example is a fake tweet from a hacked Associated Press

account on April 23, 2013, which claimed that Barack Obama had been injured by explosions at the White House. This rumour instigated financial market volatility on a global scale, and a loss of $130 billion on the S&P 500 Index within a short period (see Figure 1.1). At societal level, individuals who listened to these rumours and failed to validate the accuracy of the information might share this rumour which caused disruption in public order (Grinberg et al., 2019).

Figure 1.1   Rumour refutation from Associated Press

Similar to other topics, the novel coronavirus, COVID-19, which was first identified in Hubei Province, China (WHO, 2020), attracted widespread rumours. In early 2020, the World Health Organization (WHO) declared COVID-19 to be a public health emergency of international concern (PHEIC). This health crisis unexpectedly evolved into an international crisis, as a total of 618 million confirmed COVID-19 cases and 6.55 million deaths were recorded as of September 30, 2022, which resulted in worldwide panic (see Figure 1.2). People's high levels of uncertainty (Sellnow & Seeger, 2013) and anxiety (Rosnow, 1991) during the COVID-19 pandemic, has led to the extensive dissemination of various types of rumours (Na et al., 2018). For example, one of the highly circulated rumours in China was that drinking spirits could

prevent people from contracting COVID-19. The high level of anxiety about the virus

resulted in many people retweeting the rumour, which caused it to become one of the

most widely disseminated rumours on social media (Chen et al., 2021a).
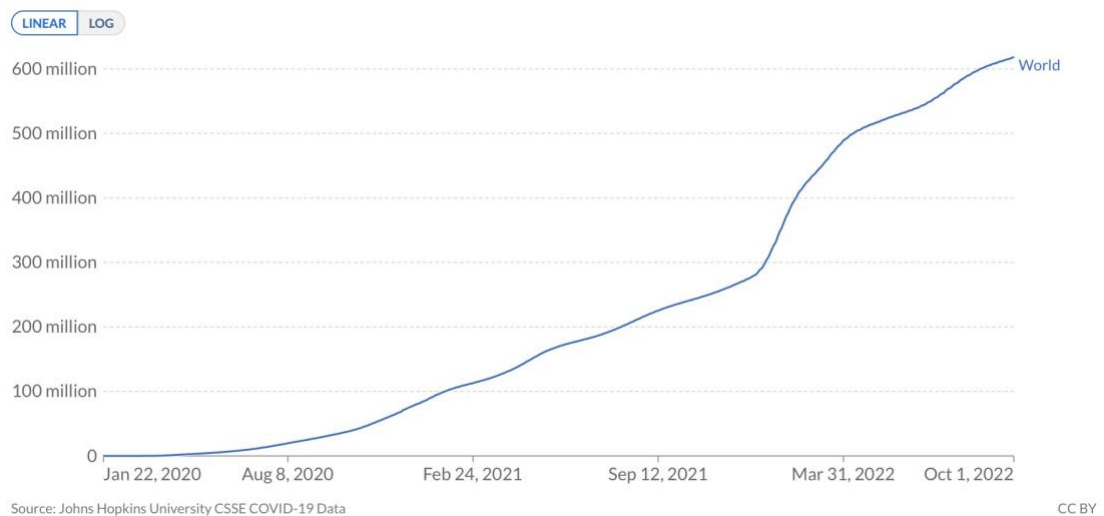
Figure 1.2   Total number of confirmed COVID-19 cases worldwide as of October
1, 2022

It is worth noting that, at the beginning of the COVID-19 outbreak in China,

social media platforms were rife with medically related rumours (Lu, 2020). Some of

the data reveal how rampant these rumours were on Chinese social media during the

COVID-19 pandemic. In total, 90 widespread online rumours (an average of more than

three per day) were identified within 28 days of the start of the COVID-19 pandemic

in Wuhan (Lu et al., 2020). In other words, new rumours became rampant on a daily

basis, with seven having been reported in a single day (see Figure 1.3).

In this regard, Chen et al. (2021b) used a web crawler to categorize the five

main topics in the rumours from January 20, 2020, to April 29, 2020 (see **Table 1.1)**.

The results indicated that control of the COVID-19 virus, which appeared 226 times,

was discussed extensively. This demonstrates that the rumours typically focused on topics that were relevant to people's daily lives. The second highest number of rumours involved rumours that were related to international relations, which appeared 206 times. Most of these rumours involved nationalistic words such as "Chinese," "nationality," and "American" (Chen et al., 2021b). These types of rumours appeal to the public's nationalist sentiment which in turns attract attention and instigate discussion (Perry, 2010).
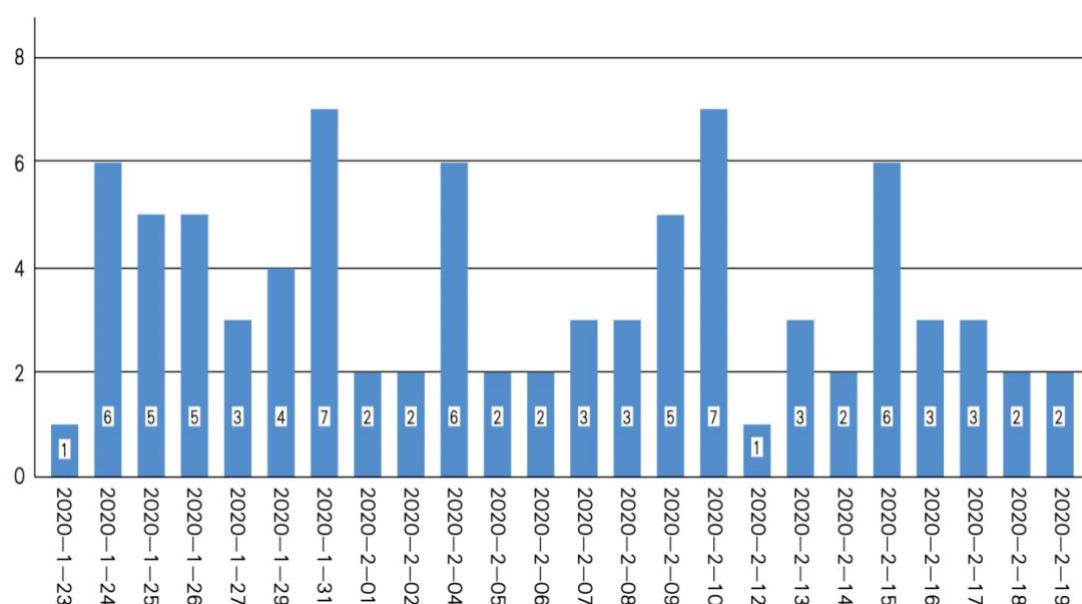
Figure 1.3   Rumours of COVID-19 from 23 January to 19 February 2020 in China

Table 1.1   Rumour topic categories 20 January 2020 to 29 April 2020

Topic	Rumour Content	Amount
COVID-19 Dissemination	Confirmation of individual exodus, aggregated outbreaks, and small secondary outbreaks	35
COVID-19 Information	Virus transmission channels, virus traceability, virus-related hazards	16
COVID-19 Control	'City closure', travel ban, resumption of work and production, hospital-related	226

| International Relationship | International bilateral policies, foreign anti-epidemic actions, anecdotes of foreigners in the community, international anecdotes-related | 206 |
| Others | Unusual and celebrity anecdotes | 81 |

Note. *Adapted from Journal Article, by Chen et al., 2021b, p. 1370.*

Hu et al. (2021) conducted a content analysis to investigate different topics in the rumours that were disseminated on Chinese social media. Following the content analysis of 290 rumours, the rumours were classified according to eight categories: Prevention & Treatment, Society and People's Welfare, Medical Information, Movement Controls, Spread of the virus, Celebrity-related, Conspiracy Theory, Domestic and International Assistance. Hu et al. found that rumours about prevention and treatment were the most popular category in all the categories of COVID-related rumours from January 18, 2020, to February 22, 2020 (see Table 1.2). The category of prevention and treatment included the rumours that COVID-19 could be prevented and treated via certain measures, various ingredients, and particular herbs, such as "garlic, wine, and amoxicillin."

Furthermore, as shown in Table 1.2, the category of society and people's welfare included rumours about city disinfection, school resumption, and sensitive issues involving social justice, such as "the Wuhan Red Cross Association sells donated vegetables". The category of medical information included rumours about modes of virus transmission, such as "COVID-19 being spread through skin and conjunctiva". The category of movement control included rumours about lockdowns and road closures in the cities and villages, while rumours about the spread of the virus included "a girl in Changsha was infected with COVID-19 and was in contact with

nine people". Celebrity-related rumours included rumours about Wenliang Li, a famous doctor who died of the COVID-19 virus. Conspiracy theories included rumours that attacked specific groups, such as the government, and generated negative public opinion. The category of domestic and international assistance referred to rumours that were related to assistance being provided by domestic and foreign organizations, such as "Japan sent a 1,000-person medical team to Wuhan."

Table 1.2   Rumours from January 18, 2020, to February 22, 2020

Topic	Frequency	Proportion (%)		Topic	Frequency	Proportion (%)
Prevention & Treatment	107	36.89		Spread of the virus	18	6.21
Society and People's Welfare	68	23.45		Celebrity-related	17	5.86
Medical Information	43	14.83		Conspiracy Theory	8	2.76
Movement Controls	21	7.24		Domestic and international assistance	8	2.76

Note. Adapted from Journal Article, by Hu et al., 2021, p. 113.

However, the main issue is that Chinese people are increasingly using social media to access information, not just for entertainment. As the largest digital society in the world, with over one billion internet users, Chinese netizens accounted for one-fifth of the total digital population in 2022 (Internet World Stats, 2022). The number of Chinese netizens reached 1.031 billion, with an increase of 42.9 million users, in December 2021 according to the 49th China Statistical Report on Internet Development (see Figure 1.4). The internet penetration rate was 73.0%, with an increase of 2.6% points from December 2020.
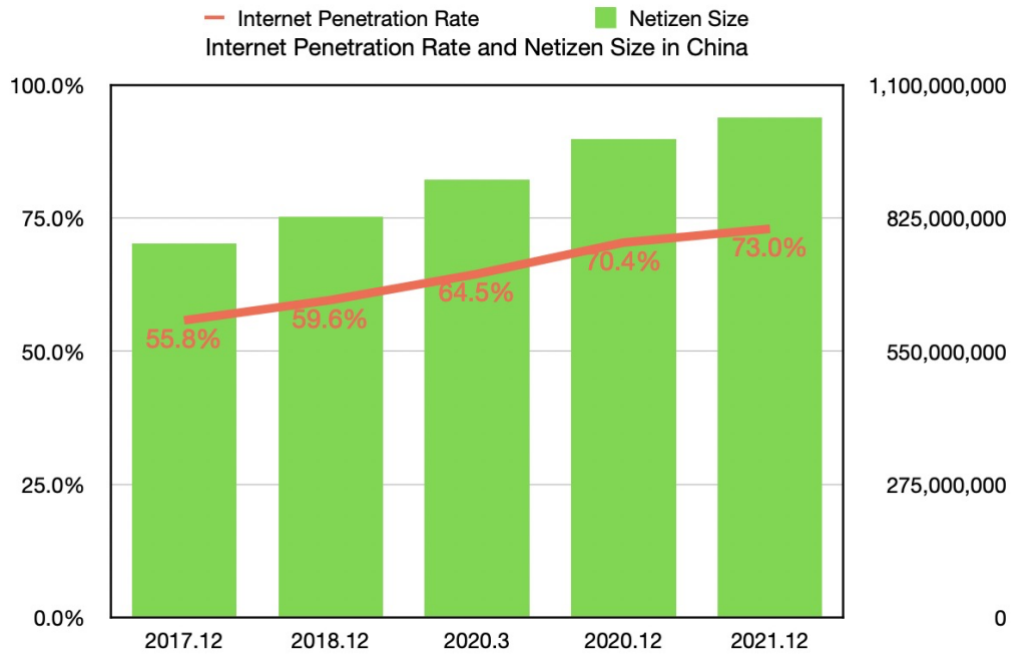
Figure 1.4   Internet penetration rate and netizen size in China from 2017 to 2021

News consumption is now becoming a fundamental online activity, and the number of individuals who rely on social media for news is continuing to increase (Goode, 2009). A total of 771.09 million Chinese netizens, which represented 74.7% of all internet users in 2021, surfed the internet to obtain news and information; see Figure 1.5 (China Internet Network Information Center [CNNIC], 2022). Of note, the rate of news consumption on Chinese social media has decreased due to the increase in the rate of use of other social media platforms.
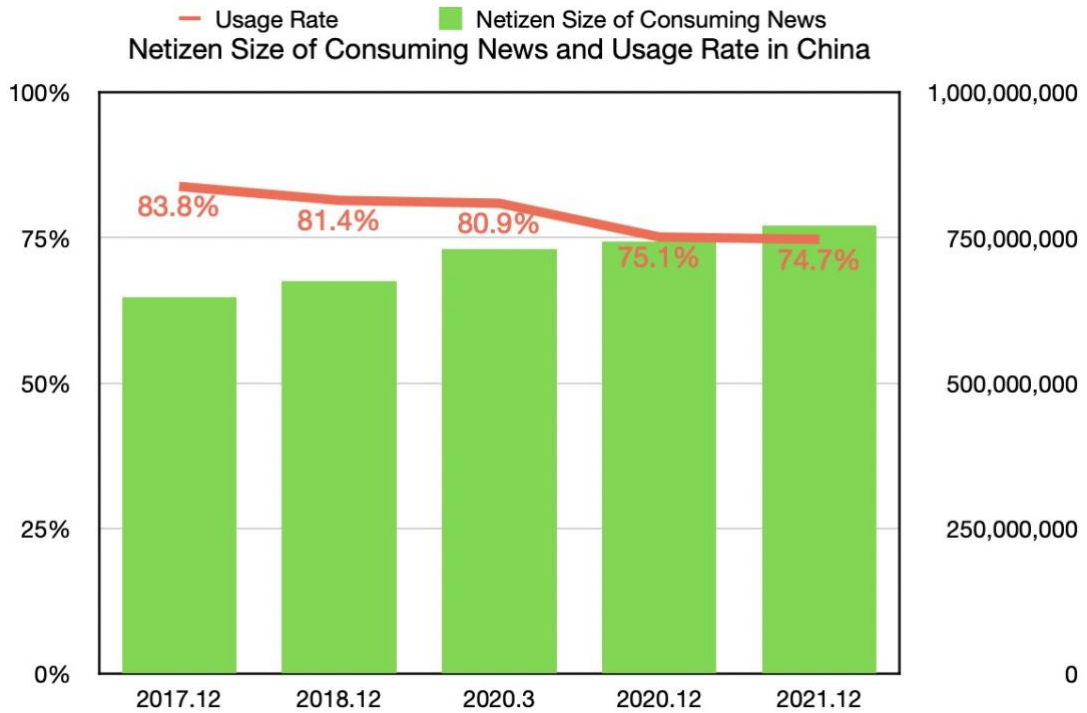
Figure 1.5   News consumption in China from 2017 to 2021

Wang et al. (2020a) used CiteSpace to map the knowledge in the field of global rumour research from 2014 to 2018, as shown in Figure 1.6. Combined with the trends depicted in the Figure 1.6, the governance of social media online rumours, providing response strategies, and ensuring the authenticity of online information emerged as the main research trends for the future. Due to the increasing development of Chinese social media, rumours that were disseminated during the COVID-19 pandemic could have posed a tremendous threat to the social order. Governments should take necessary measures to curb the spread of these rumours. One of the measures that can be used by the government is to utilise the right rumour-response strategies. The following sections will discuss rumour-response strategies and related factors, such as anxiety, the government's reputation, and rumour-related intentions.
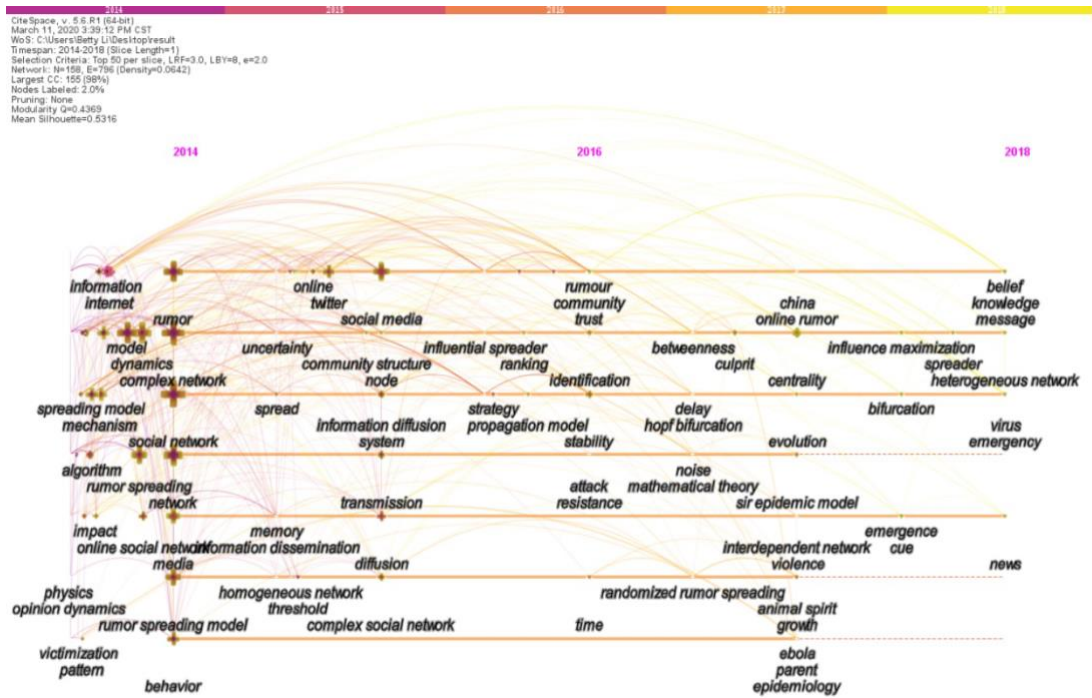
Figure 1.6   Mapping of future research trends in China and international social media rumours

1.1.1   Rumour Response Strategies in China

Crisis communication studies suggest that governments should select the right response strategy to counter a rumour crisis. Using the right response strategies allows the government to minimize its reputational damage by providing objective information (Coombs, 2007). Therefore, it is also important for a government to adopt an appropriate rumour-response strategy to decrease negative impacts during a rumour crisis. The government must provide the public with concrete information and to ensure continuous engagement with the public by suggesting optimal ways to address risky, rumour-influenced situations (Lohiniva et al., 2020). Some governments may choose not to respond to rumours because they believe that the negative impact will fade over time (DiFonzo et al., 1994). However, this may lead to the emergence of a potential public relations crisis and a serious damage to the government's reputation (Holladay & Coombs, 2013).

Paek and Hove (2019b) pointed out that governments normally used three rumour-response strategies (denial, attack, and refutation). The denial of rumour strategy involves correcting rumours without providing evidence, while the attack strategy refers to correcting rumours in an offensive tone. The refutation strategy entails correcting rumours based on evidence. All three types of rumour-response strategies were also commonly used by the Chinese government as described below.

As described in Figure 1.7, the China government used denial response strategy in the following COVID-19-related rumour that occurred in 2022. The news of Figure 1.7 stated:

"On the evening of April 7, 2022, there were rumours that Shanghai would implement militarized management, with the claim being that an armed police force had been notified that "all neighborhoods would arrange for two people to stand guard and eliminate all entry and exit." The Shanghai rumour platform asked the government about the veracity of the rumour, which the government denied, but did not provide any extra information to discredit the rumourmongers (Shanghai Rumour Bulster, 2022)".

武警将接管上海社区？官方辟谣

来源：上海网络辟谣

　　4月7日晚间，有传言称上海将要开始军事化管理，并声称有武警部队接到通知，"所有小区安排2人站岗，杜绝一切进出"。对此，上海辟谣平台向权威部门询问获悉，此传言为不实消息，请广大市民勿传谣，勿信谣。

Figure 1.7　　Response to rumour of "Shanghai would start militarized management"

As seen in Figure 1.8, the Attack response strategy was also used by the China government in November 2022. Specifically, on November 9, 2022, the Weibo account of the Dandong Municipal Government stated:

"Recently, some netizens spread the word "Dandong is going to be closed" in WeChat groups and Moments. Here, the city defense refers to a statement that the information posted on the internet is a rumour. At present, there are still sporadic cases in the society of our city, but the epidemic situation is generally controllable. The general public is requested not to spread rumours, not to believe rumours, not to spread rumours, abide by the epidemic prevention and control regulations, wear masks, wash hands frequently, and do not gather. Once again, the general public is reminded to pay attention to the authoritative information released by the government and improve the ability to identify information related to the epidemic. Anyone who fabricates or spreads rumours about the epidemic, deliberately disrupts public order, and causes adverse social impacts will be punished with promptly and strictly according to law (Dandong Government, 2022)".

Clearly based on the above message by the China government, the public were not given any relevant evidence, instead they were told that those who disseminated rumours would be punished.
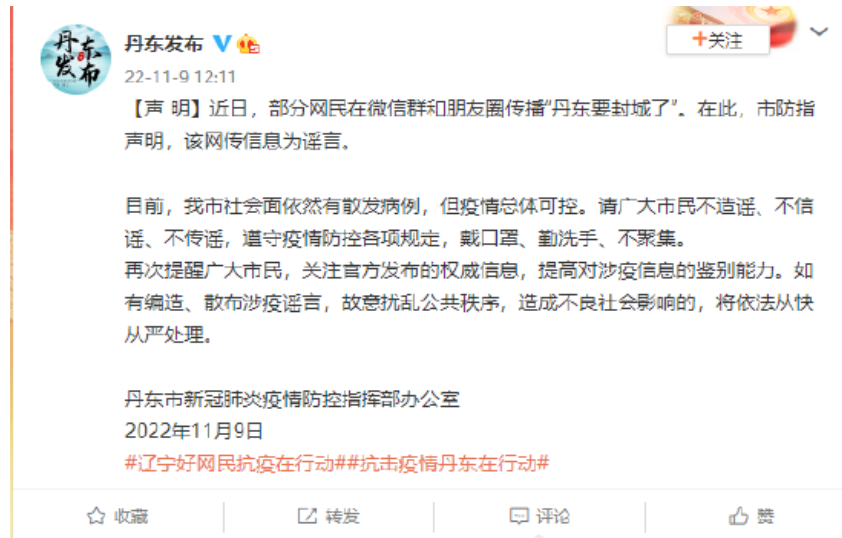
Figure 1.8   Response to rumour "Dandong is going to be closed"

In another situation, as shown in Figure 1.9, refutation response strategy was used. The news of Figure 1.9 stated:

"The reporter learned from a press conference on the prevention and control of the epidemic in Zhengzhou City, Henan Province today that the relevant person in charge stated that the relevant statement about "Zhengzhou's closure of the city" is a rumour.

According to reports, Zhengzhou City insists on hierarchical prevention and control in key areas, key personnel implement classified policies, and strict control measures in key places, firmly controlling what should be managed and releasing what should be released in an orderly manner. According to Circular No. 152, any community that has been clearly unblocked must be unsealed, and three conditions for entering and leaving the community must be implemented, that is, a 24-hour nucleic acid test negative certificate, scanning codes to wear masks, and not adding layers of codes.

In addition, the Zhengzhou Municipal Commission for Discipline Inspection has jointly established 20 supervision groups to conduct special supervision on the unblocking of communities in various districts, counties and cities, investigate communities that meet the conditions for unblocking but have not been unblocked on the surface, and severely deal with relevant responsible persons. Citizens are welcome to actively provide clues. Report through the government service hotline, the ongoing anti-epidemic platform, and the official WeChat public account. Relevant clues will be carefully checked and given timely feedback and will never disappoint the expectations of the public".

The Henan government's response not only stated that the rumour was untrue, but also provided a reliable future plan (evidence) to alleviate the public's doubts.

"民声君"今天（3日）下午从河南省郑州市疫情防控工作新闻发布会上了解到，相关负责人表示，针对"郑州封城"的相关说法，系为谣言；公安机关将对造谣者依法查处。

据介绍，郑州市坚持重点区域分级防控，重点人员分类施策，重点场所严格管控的措施，该管的坚决管住，该放的有序放开。根据152号通告，凡已明确解封的小区，必须解封，并落实出入小区三个条件，即24小时核酸检测阴性证明，扫码佩戴口罩，不得层层加码。

另悉，郑州市委市纪委已联合成立20个督导组，对各区县市小区解封情况进行专项督导，对符合解封条件而未解封表面解封的小区进行调查，严肃处理相关责任人。欢迎市民群众积极提供线索。通过政务服务热线，正在办正在抗疫平台，官方微信公众号等渠道举报。对于相关线索将认真核查，及时反馈，绝不辜负市民群众的期待。（责编/翔宇）

Figure 1.9   Respond to rumour "Henan will be closed" (Sina, 2022).

1.1.2　　　Rumour Response Strategy and Its Impact

Government's use of different rumour-response strategies may lead to various impacts or consequences. According to Coombs (2007), the rumour-response strategy may cause a number of outcomes including anxiety, reputation, and rumour behaviour intentions. The following section provides a description of these three outcomes: the Chinese people's anxiety, the Chinese government's reputation, and the rumour behaviour intentions.

First, numerous measures, such as quarantines, lockdowns, social distancing, and travel bans or restrictions were implemented to prevent the spread of COVID-19. Despite their inevitability, the precautions resulted in negative emotions (public anxiety) in the affected countries (Fardin, 2020). The public began to exhibit signs of anxiety, insecurity, and frustration following the abrupt cessation of normal life (Clemente-Suárez et al., 2020). Anxiety could also be triggered by past experiences derived from collective memory, such as the 2003 SARS virus that resulted in severe losses, thus prompting the public to imitate past behavioural patterns (Olick & Robbins, 1998). Chinese citizens are deeply affected by the presence of pneumonia, anti-epidemic policies, and first-line, health-related medical care (Li & Han, 2020). Given that all health-related concerns, such as SARS, invoke people's memories of fear, Chinese citizens became concerned and anxious easily during the COVID-19 outbreak in Wuhan.

Some data support people's vulnerability and feelings of anxiety and negative emotions during the COVID-19 pandemic in China and reveal that the Chinese citizens exhibited high levels of anxiety and had negative psychological states. Wang's survey (2020) revealed that approximately 24.49% of Chinese people were anxious, while 50.92% were depressed. Of note, their anxiety may have originated due to social

factors, including long-term isolation at home and the economic recession, rather than as a result of the health crisis at the time. Zhang et al.'s (2021) survey highlighted that Chinese medical staff suffered from higher levels of anxiety and stress due to COVID-19; specifically, symptoms of anxiety were detected in 30.0% of the health workers who had worked for prolonged hours during the pandemic.

Second, reputation is an expectation of behaviour based on public observations or the collective information about an organization's previous behaviour within a specific context at a given time (Azzedin, 2014). As the first country to experience the COVID-19 outbreak, China's government experienced a reputational threat due to health rumours (Fang et al., 2020). Rumourmongers undermine a government's reputation and its administration by attacking specific races, countries, or communities by accusing them of being disease sources or carriers. Such an attack on reputation is frequently used as a pretext for violence during health crises (Perry, 2010). For example, China was globally criticized on Twitter and Facebook at the beginning of the COVID-19 pandemic for being the first country to experience a large-scale outbreak of the virus: "China was informed of the outbreak as early as mid-November 2019, withholding information about it for 45 days" (Belghoul et al., 2021), "Medical items imported from China are counterfeit products" (Plana et al., 2021), and "Chinese people drink bat soup, which is how they got the COVID-19" (Long et al., 2021). However, all of these criticisms were rumours, which could present a negative image of China to the global population and complicate international exchanges and collaborations for the prevention and control of the outbreak (Fang et al., 2020).

The threat to the Chinese government's reputation were not only contributed by the international community, but also by rumours within China. Some

rumourmongers asserted that the head of the South China seafood market in Wuhan, where the outbreak first occurred, was closely related to a high-ranking official in the Wuhan government (Lu et al., 2020). More rumours about the Chinese government's crisis management began circulating in tandem with the increasing number of COVID-19 cases and the shifting of medical resources to Wuhan, China. Such false news, which led the citizens of China to speculate about the government's capacity to enforce the prevention policies pertaining to the epidemic at the time, created social intricacies in addition to health issues in attempts to control the pandemic. According to Lu et al., rumours about the Wuhan outbreak demonstrated a clear direction (94.4%), with the government and public officials being the main targets of the rumours (52.9%).

Therefore, widespread rumours posed a risk to public confidence in the government during the COVID-19 pandemic. An attack on reputation via the spreading of rumours can have many negative effects, beginning with a loss of confidence in an individual, a government, or an institution (Meuer & Imhoff, 2021). Moreover, this decrease in reputation can lead to a decline in support for government policies aimed at preventing the pandemic and a decline in intentions to engage in health-promoting behaviour (Han et al., 2021). For a government to implement its epidemic prevention policies successfully, it must also maintain a positive reputation (Zimand-Sheiner et al., 2021). Therefore, the Chinese government required a cautious approach to managing rumours to avoid unnecessary damage to its reputation.

Third, research on rumours related to health-related behaviour is an emerging area with many questions remaining unaddressed due to their novelty. Most rumour-oriented studies have used political issues as cases to investigate public behaviour with regard to politics, such as intentions to vote in elections (Swire-Thompson & Lazer,

2020). However, studies of behaviour with regard to rumours about health issues have attracted much scholarly attention due to the COVID-19 outbreak; rumours about health deter the public's adoption of health-promoting behaviours, such as hand washing and social distancing, and promote misleading practices (Roozenbeek et al., 2020). These hindrances, which led to the further spread of the virus, also resulted in physical damage and psychological issues (Tasnim et al., 2020). Overall, rumours remained prevalent on digital platforms despite preventive measures to decrease misleading information being suggested by WHO and primary social media platforms such as Facebook, Google, LinkedIn, Microsoft, Reedit, Twitter, and YouTube (Statt, 2020).

In China, online rumours can also trigger negative rumour-related behaviour. One well-known example (Zhang et al., 2020a) during the COVID-19 outbreak in China was the craze for purchasing ShuangHuangLian (SHL), a traditional Chinese medicine that is used to treat symptoms of influenza such as fever, coughing, and a sore throat. At midnight on January 31, 2000, eight days after the lockdown of Wuhan on January 23, 2000, a social media platform affiliated with the Chinese central official media, Xinhua Shidian, reported that SHL had an inhibiting effect on COVID-19. This information was disseminated quickly; by the morning of 1 February 2020, the topic "SHL can inhibit the novel coronavirus" had received approximately 440 million views and 180 thousand messages on China's most popular social media platform, Sina Weibo. Such a rapid spread triggered an irrational purchasing frenzy across China. According to media reports, SHL was sold out on all online sales platforms within one hour, as was the poultry based SHL. Instead of following quarantine requirements and maintaining social distance, many people in numerous Chinese cities went outside and gathered in front of pharmacies, even at midnight. Despite the fact that the government

conducted an emergent fact checking and clarified the information, the public continued to purchase SHL through various channels. However, this craze resulted in tragedy. For example, the media reported that a COVID-19 patient had contracted the virus while waiting in line to purchase SHL. Given that users of Chinese social media preferred to obtain information about COVID-19 via social media (Jia & Meng, 2020), the Chinese government needed to take appropriate measures to manage the rumours to prevent the negative behaviour associated with them.

1.2   Problem Statement of the Study

Despite the popularity of rumour research during the recent health crisis, there are still some gaps in the studies. This section discusses the problems encountered in research on response strategies with regard to rumours and related factors, as well as the gaps in rumour research in China.

Few studies have focused on rumour-response strategies at the national level of issues related to risk (Paek & Hove, 2019b). The degree to which people intend to spread rumours and to engage in rumour-related behaviour is interesting in national-level risk contexts because negative behavioural effects, rumour-dissemination intention, and the intention(s) behind rumour-related behaviour have been shown to be significant variables in rumour research (Paek & Hove, 2019a). In order to determine whether different cultural factors affected the effectiveness of rumour-response strategies, Paek and Hove (2019b) also suggested conducting future research on rumour-response strategies in various countries and involving different subjects.

Rumour-response strategies are also an important area of rumour research in China. Based on Wang et al.'s (2020a) review, future study trends involving rumours

in China include the management of rumours on social media and rumour-response strategies. Shi and Duan (2021) found that research on rumour management was a popular topic among Chinese academics after analyzing 1729 documents in the China National Knowledge Infrastructure (CNKI). However, most of these approaches to rumour management were related to legislation, and there was a lack of actual rumour-response strategies. According to Ning et al. (2021), China began to experience numerous health-related rumours in early 2020. Between February and May 2020, the Chinese government actively released multiple clarification and correction announcements to decrease the influence of these rumours. However, no empirical research has examined the characteristics of the COVID-19–related rumours or the effectiveness of the rumour-response strategies adopted by the Chinese health authorities thus far (Ning et al., 2021).

Furthermore, Wang et al. (2021a) suggested that future studies of rumour-response strategy should focus on problems related to negative emotions and should investigate the associated influencing factors. During the COVID-19 pandemic, the Chinese public experienced varying degrees of anxiety; however, anxiety not only has an impact on people's mental health but can also increase the dissemination of rumours (DiFonzo & Bordia, 2007). Anxious individuals are more vulnerable to absorbing negative information, which increases the likelihood of rumours being spread (Sudhir & Unnithan, 2019). Community members, who often lack sufficient information to internalize the overall situation during health crises such as COVID-19 (Na, 2019), prefer to receive information from credible media channels rather than from low-level counterparts (early-stage social media) to mitigate their anxiety. The number of individuals who tend to prefer informal news to formal news does not seem to be large (Swire-Thompson & Lazer, 2020). However, when formal media sources fail to

provide sufficient information, people could turn to informal media to access information and to mitigate their anxiety (Oh et al., 2013). In this situation, the public may access numerous rumours via the informal media. Therefore, given the negative impact of anxiety on China during the COVID-19 pandemic, the present study sought to explore the relationship between rumour-response strategies and anxiety, as well as to identify the best rumour-response strategies to decrease people's anxiety.

In addition, the government needs to pay attention to the reputational threat that rumours pose. Widespread rumours posed a risk to public confidence in the government during the COVID-19 pandemic. A rumour attack on a reputation may have many negative effects, beginning with a loss of confidence in an individual, a government, or an institution (Meuer & Imhoff, 2021). Moreover, this decrease in reputation can lead to a decline in support for government policies that are aimed at preventing a pandemic, as well as a decline in intentions to engage in health-promoting behaviour (Han et al., 2021). In order to implement its epidemic prevention policies successfully, a government must also maintain a positive reputation (Zimand-Sheiner et al., 2021). Therefore, the Chinese government needs to select an appropriate response strategy to save its reputation when encountering a rumour crisis. Of note, this study aimed to identify the best rumour-response strategy to save the government's reputation and to explore the link between a given rumour-response strategy and the government's reputation.

This study intends to address these gaps via an appropriate theory. Situational Crisis Communication Theory (SCCT) is an important framework for studying the effects of rumours and response tactics in crisis communication (Paek & Hove, 2019a). SCCT provides different types of strategies to solve different types of public crises

and to save reputation (Coombs, 2007; Coombs, 2015). According to SCCT, a crisis response strategy has the best possibility of being successful when it is appropriate for the type of crisis (Ma & Zhan, 2016). Although past studies have investigated the relationship among crisis response strategies and anxiety (Kim et al., 2019), reputation (Kim & Yang, 2009), and behavioural intentions, only a few studies have investigated this relationship in the context of a rumour crisis.

Furthermore, most of the rumour studies in China have analyzed the causes of rumours in the context of specific events (Hu, 2020). The majority of Chinese rumour studies have discussed the government's actions, laws, and media obligations during rumour crises, but they have rarely investigated the psychological factors that influence the public (Huang, 2016). Furthermore, as Chinese social scientists generally prefer qualitative research as a research method (Xu, 2005), the previous findings of Chinese rumour studies lack quantitative data to support their conclusions, particularly those studies that are driven by experimental findings (Hu, 2020).

In order to fill these gaps in the research on rumours in China, the present study used a quantitative method based on SCCT. In this study, the researcher used a rumour stimulus, namely that "potato chips would spread the COVID-19 virus," and conducted a survey experiment to explore the research topic. This study explored the effects of different rumour-response strategies on anxiety, the government's reputation, rumour-dissemination intentions, and the behavioural intention to reduce the consumption of rumour-related products in the context of Chinese social media. In addition, this study investigated whether anxiety and the government's reputation played a mediating role between rumour-response strategies and rumour-related

behavioural intention. The next section will explain the research objectives of and the research questions for the study.

1.3   Research Objective of The Study

The current study's objectives were as follows:

RO1: To investigate the different effects of rumour-response strategies on

(1) the rumour-dissemination intention,

(2) the behavioural intention to reduce the consumption of rumour-related products,

(3) anxiety, and

(4) the government's reputation.

RO2: To investigate the mediating effect of the government's reputation between

(1) rumour-response strategies and rumour-dissemination intention, and

(2) between rumour-response strategies and the behavioural intention to reduce the consumption of rumour-related products.

RO3: To investigate the mediating effect of anxiety between

(1) rumour-response strategies and rumour-dissemination intention, and

(2) between rumour-response strategies and the behavioural intention to reduce the consumption of rumour-related products.

1.4   Research Question of The Study

The current study's questions were as follows:

RQ1: Which rumour-response strategies have a positive effect on

(1) the rumour-dissemination intention,

(2) the behavioural intention to reduce the consumption of rumour-related products,

(3) anxiety, and

(4) the government's reputation?

RQ2: Will the government's reputation mediate the relationship between

(1) rumour-response strategies and rumour-dissemination intention, and

(2) between rumour-response strategies and the behavioural intention to reduce the consumption of rumour-related products?

RQ3: Will anxiety mediate the relationship between

(1) rumour-response strategies and rumour-dissemination intention, and

(2) between rumour-response strategies and the behavioural intention to reduce the consumption of rumour-related products?

1.5   Conceptual Definition of the Variables

Rumour response Strategies: In line with SCCT, rumour response strategies are the approaches that can be used to repair reputations, reduce the adverse impacts