Framing Covid-19 Vaccination: A Study of Malaysian Mainstream and Alternative Online News Portals

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Abstract

The COVID-19 pandemic is reaching a worrying state in Malaysia and the National COVID-19 Immunisation Programme has been initiated to tackle the pandemic. Various news pertaining to the COVID-19 vaccines have been reported and it raises questions of whether the way online news portals frame the news would influence the public's willingness to get vaccinated against COVID-19 or not. Building on previous literature examining the role of mass media in health communication and drawing on the theoretical concepts of framing, the study examined news stories published by New Straits Times Online, The Star Online, Malaysiakini, and Free Malaysia Today from March 1, 2021 to November 30, 2021. The findings concluded that there is a statistically significant difference in the use of news frames between the online news portals. The results obtained from the study may serve as a benchmark for journalists and media practitioners in their future reporting of vaccination news because they revealed the underlying news frames that influence one's understanding of core issues and problems revolving around the COVID-19 vaccination in Malaysia.

Keywords: COVID-19 vaccination, Framing, News Frames, News Portals, Malaysian Media

Pembingkaian Berita Vaksinasi COVID-19: Suatu Analisis Pelaporan Akhbar Perdana dalam Talian dan Portal Berita Berbahasa Inggeris di Malaysia

Abstrak

Pandemik COVID-19 telah merebak sehingga mencapai tahap yang membimbangkan di Malaysia dan Program Imunisasi Kebangsaan COVID-19 (PICK) telah dilancarkan untuk membendungnya. Laporan berita yang meluas telah diberi terhadap vaksinasi COVID-19 berikutan tahap pandemik kesihatan awam itu yang telah mengancam nyawa manusia secara meluas dan berleluasa. Persoalannya, adakah pelaporan oleh platform akhbar dalam talian dan portal berita itu mampu mempengaruhi masyarakat untuk mengambil suntikan vaksin berkenaan? Berpaksikan sorotan susastera tentang peranan media dalam konteks komunikasi kesihatan dan kerangka teoritikal pembingkaian berita, makalah ini telah menganalisis berita dalam talian yang dipaparkan oleh akhbar perdana dan portal berita. Kajian ini memilih sampel berita dari akhbar dalam talian dan portal berita berbahasa Inggeris iaitu New Straits Times Online, The Star Online, Malaysiakini, dan Free Malaysia Today bermula dari 1 Mac 2021 sehingga 30 November 2021. Dapatan kajian menunjukkan adanya perbezaan yang signifikan dalam pembingkaian berita dalam talian berkenaan vaksinasi COVID-19. Hasil kajian ini diharap dapat menjadi rujukan dan tanda aras kepada para wartawan dan pengamal media dalam pelaporan berita berkenaan vaksinasi pada masa hadapan. Hal ini demikian kerana bingkai berita dapat mempengaruhi kefahaman pembaca terhadap isu utama dan permasalahan yang dilaporkan berkenaan vaksinasi COVID-19 di Malaysia.

Kata Kunci: Vaksinasi COVID-19, Pembingkaian, Bingkai Berita, Portal Berita, Media Malaysia

Introduction

COVID-19 is a viral infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). First discovered at the end of 2019 in Wuhan, China (World Health Organisation, 2021), it has now spread to over 200 countries and is labelled a global pandemic by the World Health Organisation (WHO). Over 200 million COVID-19 cases have been documented to date, with over 5 million fatalities across the globe (Worldometer, 2021).

Malaysia is no exception to this unprecedented global circumstance. In January 2020, the country discovered its very first case of COVID-19, which involved three Mainland Chinese tourists (New Straits Times, 25 January 2020). Since then, the number of cases steadily climbed before the country recorded the first two fatalities on March 17, 2020 (New Straits Times, 17 March 2020). Most of these cases were traced back to a religious gathering in Kuala Lumpur, which caused a significant increase in both domestic and imported cases in surrounding nations (Leong, 2020). It was not long before the nation witnessed the total number of active cases to rise from less than 30 to a shocking 2,000 in every state and federal territory by the end of March, 2020. To counteract the massive spike in COVID-19 cases, the then Prime Minister Tan Sri Muhyiddin Yassin issued a statement about a twoweek countrywide lockdown known as Movement Control Order (MCO) on March 18, 2020 to reduce the virus spread and alleviate the overburdening of the country's healthcare system (Prime Minister's Office, 2020). Similar to lockdowns imposed in other countries, the MCO included comprehensive prohibitions of public movements and mass gatherings, closing of borders to bar citizens from leaving the nation and to restrict the entry for all foreign travellers, closing of non-essential businesses and educational institutions, and last but not least, implementation of social distancing and mask-wearing policies (Prime Minister's Office, 2020).

Shortly after the sharing of genetic sequence of SARS-CoV-2 by Chinese researchers in January 2020, an urgent international response was triggered to expedite the development of a preventive COVID-19 vaccine (Le, Andreadakis et al., 2020). Since then, the development of vaccines was rigorously carried out on a worldwide scale. It was also the first time where vaccine development was facilitated through extraordinary collaboration between the multinational pharmaceutical industries and the governments (Le, Cramer et al., 2020).

Previous research on pathogens that have caused serious diseases such as the Nipah virus, Middle East Respiratory Syndrome (MERS), and severe acute respiratory syndrome (SARS) have also aided in the swift creation of the vaccines. By June 2020, governments, corporations, international health organisations, and university research groups have committed tens of billions of dollars

to develop hundreds of potential vaccines and get ready for worldwide vaccination programmes to immunise against COVID-19 (Ahmed, 2020; Gates, 2020; Weintraub et al., 2020). To inhibit the spread of virus and end the COVID-19 pandemic in the country, Malaysian government has also kickstarted its National COVID-19 Immunisation Programme on February 24, 2021. Implemented in phases, the objective is to completely vaccinate at least 80 per cent of adult populations in Malaysia by February 2022 to achieve herd immunity, thus reducing infections, hospitalisations, and death. Khairy Jamaluddin, the then Minister of Science, Technology, and Innovation (who later takes over the Minister of Health position) was appointed as the Coordinating Minister for the immunisation program. The Special Committee for Ensuring Access to COVID-19 Vaccine Supply has also been set up to oversee and make sure the procurement of COVID-19 vaccine supply in the country can be conducted in a systematic manner.

To this end, Malaysian Government has been making concerted efforts to encourage citizens and non-citizens to register themselves for vaccination. They include online registration via the *MySejahtera* application or manual registration at public and private hospitals, as well as the outreach programmes for rural and interior areas in order to achieve thorough vaccine coverage of the population. However, while the immunisation programme is underway, news coverage of vaccination complications is not unheard of. There has been reported cases by other countries on risks and adverse effects associated with COVID-19 vaccination such as heart attack, brain stroke, and blood clotting after taking the vaccines. Malaysia has also reported a number of post-vaccination deaths, but they have since been cleared up by the government authorities that no link is found between vaccines and deaths.

Research Objectives

- 1. What is the frequency of news frames used in the coverage of COVID-19 vaccination news in Malaysia by *New Straits Times Online, The Star Online, Malaysiakini*, and *Free Malaysia Today*?
- 2. What is the frequency of news frames used in the coverage of COVID-19 vaccination news in Malaysia by *New Straits Times Online, The Star Online, Malaysiakini*, and *Free Malaysia Today*?

Literature Review

The media may have an impact on public sentiment by presenting events and problems in certain ways. Robert Entman (1993) took up the framing concept and applied it specifically to the study of mass and news media. A frame describes the connection between multiple interconnected 21 components of a text (Bateson, 1972).

message has two components: (1) the specific content, and (2) a frame that explains how the text should be interpreted as a whole. It is the process through which the media frames reality, allowing the receiver to structure and define reality. At the heart of news framing study is the need to comprehend and justify why "[often small] changes in the presentation of an issue or an event produce [sometimes larger] changes of opinion or other outcome variables" (Chong & Druckman, 2007b, p. 104).

a. Framing research on health issues in Malaysia

A systematic review of framing research in Malaysia show that scholars have examined how Malaysian news media frame health issues in their reportage. Observably, empirical studies on the coverage of COVID-19 by the local news media are scant due to the novelty of the disease. The few existing ones have focused on "Media Framing on COVID-19 Pandemic in Malaysian and Indonesian Newspapers" (Morissan et al., 2020, pp. 800-812); "Corpus Driven Analysis of News Reports about COVID-19 in a Malaysian Online Newspaper" (Nor & Zulcafli, 2020, pp. 199-220); and "Corpus-based Comparative Study of Online News Reporting of the COVID-19 Outbreak in the Philippines and Malaysia" (Villanueva, 2021, pp. 1-19). Apart from that, previous media framing studies unrelated to COVID-19 but considered relevant have also been identified. They are namely "The Coverage of Dengue and Zika in Selected Malaysian Newspapers" (Sedu & Diah, 2017, pp. 1-11); and "The Coverage of Vaccination in the Malay Newspapers" (Ghazali et al., 2020, pp. 351-366).

The research objectives of these framing research on health issues are different from each other. In the study by Morissan et al. (2020), the objective was to uncover the main frames and metaphors used by Indonesian and Malaysian newspapers in reporting the COVID-19 pandemic. The researchers explained that the ongoing outbreak of COVID-19 has received vast media coverage and that tells us how uncertainty can easily breed fear in the face of an epidemic. They argued that newspapers often use an alarming tone or fear-inducing language in their coverage of disease outbreak (Morissan et al., 2020). In doing so, the news signalled what issues catch the people's attention, which in turn are perceived as more essential by the general populace. The prevalence of fear as a theme in these news stories suggested that most of the pandemic reportage reflects public fear rather than being informative of what is really going on in terms of viral spread (Morissan et al., 2020).

Though not related to COVID-19 outbreak, relevant journal articles have also been identified and included in the literature review because they are deemed crucial to the understanding of framing of health issues in Malaysian mainstream news media. In the study by Sedu and Diah (2017), the researchers analysed the coverage of dengue and *Zika* news in three Malaysian

daily newspapers, i.e., *Berita Harian, Utusan Malaysia*, and *The Star* through thematic analysis. By emphasising on the use of expressions or words, as well as other news elements by the newspapers in covering epidemics, the study revealed numerous similar themes, including disease causes, preventative strategies, obstacles, and expected responses by the public and government (Sedu & Diah, 2017).

b. Role of news media in health communication

In the face of novel and potentially dangerous incidents such as a global health crisis, the public has the tendency to rely heavily on news media as their main information sources to mitigate risks and uncertainties about a situation (Garfin, Silver, & Holman, 2020). Studies have shown that news media like newspapers, television, radio, and online sources are some of the most preferred sources by the general public for accurate and up-to-date information during a health crisis (Ghazali et al., 2020; Mohamad et al., 2020; Tham & Zanuddin, 2015; Villanueva, 2021). Mohamad et al. (2020) conducted a study to investigate the connection between COVID-19 information sources and Malaysians' opinions towards pandemic preparedness. They found out Malaysians predominantly used television and internet news portals to access information on COVID-19 (Mohamad et al., 2020).

As the subset of health communication, vaccine communication, too, raises many pressing questions about people's attitude towards vaccination and factors that influence vaccine uptake. A wealth of literature indicates that news media plays a pivotal role in notifying the public about the vaccines (Catalan-Matamoros & Peñafiel-Saiz, 2020; Chen & Stoecker, 2020; Eberth et al., 2014; Garfin, Silver, & Holman, 2020; Karasneh et al., 2021; Okuhara et al., 2019; Tran et al., 2018). Eberth et al. (2014) posited that news stories frequently take on a particular perspective and establish the agenda for a public debate on an issue. Okuhara et al. agreed with this view and suggested that news, depending on their content, are "capable of increasing vaccine-related knowledge, or of instilling fear of adverse reactions to vaccination" (2019, p. 2). As such, it can be deduced that media framing of vaccination issues is capable to manipulate the general public's willingness to get vaccinated, and thus affect vaccine uptake.

According to Karasneh et al. (2021), the educational function of the media in public health should be closely examined in incentivizing compliance with government countermeasures and involvement in protective habits. Okuhara et al. (2019) and Catalan-Matamoros and Peñafiel-Saiz (2020) took the same stance and advised that the media needs to act as a key player in vaccine education during vaccination campaigns. As the public are gradually exposed to more news reports regarding vaccination, their knowledge about the various types of vaccine will undoubtedly improve over time.

Meanwhile, the Ministry of Health should be concerned with the media portrayal of vaccine efficacy and safety and the extent to which such portrayal may influence public confidence in vaccination programme as a whole. The media must maintain professional integrity by presenting comprehensive reports in order to not misinform readers or foster false conclusions

Methodology

To identify media frames, a content-analytical approach must be used to discover the sections of a mediated text that constitute a frame. The study adopted a purposive sampling of vaccination news within a specific timeframe from Malaysian online news portals. In this study, the four chosen online news portals are *New Straits Times Online, The Star Online, Malaysiakini*, and *Free Malaysia Today*. For the sampling period, the news stories were manually searched and gathered from March 1, 2021 to November 30, 2021, during which COVID-19 vaccination is subject to heightened public and media interest due to its ongoing administration in Malaysia.

Results

Table 1 shows a cross-tabulation of online news portals and the frequency of news frames that appeared in COVID-19 vaccination news published by the respective online news portals. As indicated, all the four Malaysian online news portals somewhat used the news frames at a similar frequency in the coverage of COVID-19 vaccination news in Malaysia. Attribution of responsibility frame turned out to be the most prevalent frame that emerged in news stories with 48.6 per cent or 391 units of news stories. In terms of the online news portals that used the attribution of responsibility frame, 51.3 per cent or 97 units of news stories were contributed by The Star Online, followed by 50.3 per cent or 99 units of news stories by Free Malaysia Today, 49.0 per cent or 103 units of news stories by Malaysiakini, and 44.2 per cent or 92 units of news stories by New Straits Times Online throughout the period of study. On the other hand, it was quite evident that the conflict, morality, and economic consequences frames were occasionally used in the coverage of COVID-19 vaccination news in Malaysia, with the morality frame gaining the least attention in only 2.9 per cent or 23 units of news stories.

Table 1: Frequency of news frames used in the coverage of COVID-19 vaccination news in Malaysia

News Frame	New Straits Times Online	The Star Online	Malaysiakini	Free Malaysia Today	Whole Sample
	N (%)	N (%)	N (%)	N (%)	N (%)
Attribution of Responsibility	92	97	103	99	391
	(44.2%)	(51.3%)	(49.0%)	(50.3%)	(48.6%)
Human Interest	92	78	73	76	319
	(44.2%)	(41.3%)	(34.8%)	(38.6%)	(39.7%)
Conflict	7 (3.4%)	5 (2.6%)	20 (9.5%)	11 (5.6%)	43 (5.3%)
Morality	12	3	4	4	23
	(5.8)	(1.6%)	(1.9%)	(2.0%)	(2.9%)
Economic	5	6	10	7	28
Consequences	(2.4%)	(3.2%)	(4.8%)	(3.6%)	(3.5%)
Total	208	189	210	197	804
	(100%)	(100%)	(100%)	(100%)	(100%)

Note. Values in parentheses indicate percentages within news portals.

Figure 1 shows the frequency of attribution of responsibility frame found in news published by New Straits Times Online, The Star Online, Malaysiakini, and Free Malaysia Today. It can be seen that the four online news portals have been framing a majority of COVID-19 vaccination news using the attribution of responsibility frame. According to Semetko and Valkenburg (2000), new stories under this frame often suggested that some level of government is responsible or capable to alleviate the issue or problem. An example of news story that used this frame is "Better Communication, Transparency And Quicker Vaccine Rollout Needed In NIP" where the government was urged to ensure the success of the National COVID-19 Immunisation Programme through transparency and effective communication (Arumugam, 2021a). Similarly, another news urged the government to look into re-strategising the National COVID-19 Immunisation Programme soon in view of Malaysia's potential shortage of vaccines (Chan, 2021b). On a similar note, The Association of Private Hospitals Malaysia had asked the government to include them in the National COVID-19 Immunisation Programme (The Star Online, 30 March 2022).

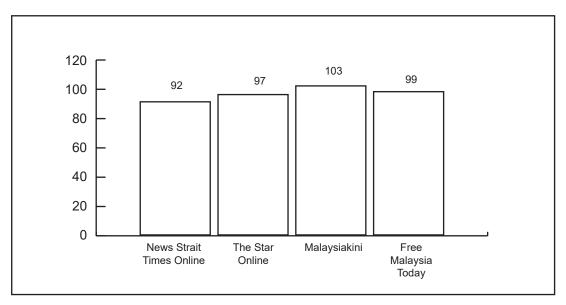


Figure 1: Frequency of attribution of responsibility frame

Under the attribution of responsibility frame, these news also suggested solutions to the issue or problem pertaining to COVID-19 vaccination, such as assembling a district-level COVID-19 Immunisation Task Force (CITF) to assess and resolve problems that may arise when inoculating those residing in the state's remote interiors (Miwil, 2021), roping in Pos Malaysia to drive the effort in places where the uptake is low (Babulal & Krishnan, 2021), as well as setting up mobile vaccination teams (Harun, 2021). Furthermore, in order to ramp up vaccine supply delivery in Klang Valley, it was announced by Khairy Jamaluddin that more vaccination dispensation centres (PPVs) will be opened in Selangor and Kuala Lumpur shortly after Sultan of Selangor's shock at the low and unfair number of COVID-19 vaccines supplied to the state (Malaysiakini, 8 June 2021). In the meantime, the new stories also provided a sense of assurance to those who are in doubt about the COVID-19 vaccines and their possible side effects. The Prime Minister Tan Sri Muhyiddin Yassin assured that all the vaccines used in the National COVID-19 Immunisation Programme have been tested by the National Pharmaceutical Regulatory Agency and are safe and effective, adding that people should not be concerned about the brands of COVID-19 vaccines (The Star Online, 5 March 2021). In a later news report, the Health Ministry also announced that the AstraZeneca and Sinovac COVID-19 vaccines are deemed suitable to be administered to both breastfeeding and pregnant women within 14 to 33 weeks of gestation (Malaysiakini, 25 June 2021).

Apart from the government, new stories also attributed responsibility to individuals or groups of people in the society. For instance, certain individuals were found responsible for illegal sales of COVID-19 vaccines and immunisation appointments, to which Khairy Jamaluddin had asked the police to "act quickly on this matter and apprehend anybody found selling appointments or vaccines" (Mohd, 2021a, para. 5). In a later news, it was indeed reported that three individuals, who believed to be engaged in the unlawful distribution of COVID-19 vaccines in Klang, Selangor, were arrested by the police (Mohd, 2021b). Meanwhile, in (Free Malaysia Today, 2 September 2021), the Sultan of Selangor Sharafuddin Idris Shah warned mosque officials and religious teachers in the state who refused the COVID-19 vaccine that they could be forbade from performing their duties (Free Malaysia Today, 22 September 2021). All these examples of news story show that Malaysian online news portals have attributed a great deal of responsibility to the government as well as to other members of the public when it comes to reporting issues related to the COVID-19 vaccination in Malaysia.

Figure 2 shows the frequency of human interest frame found in news published by New Straits Times Online, The Star Online, Malaysiakini, and Free Malaysia Today. Second to the attribution of responsibility frame, the results found that a significant portion of news stories was reported using the human interest frame, with New Straits Times Online published the most human interest stories among the four Malaysian online news portals. These news stories tended to emphasise how individuals and groups are impacted by the issue or problem. For instance, in "Confusion Over AstraZeneca COVID-19 Vaccine Registration", it was reported in the news that while some receiving appointment notifications for the AstraZeneca COVID-19 vaccine on their MySejahtera application despite having unsuccessful registration, many others who managed to book a slot did not have their details updated on the app (Arumugam, 2021b). In the meantime, another news concerned the mobility of citizens postvaccination, where the then Prime Minister Tan Sri Muhyiddin Yassin announced that those who had been completely vaccinated against COVID-19 would be permitted to travel not just across the states but even to foreign countries provided they acquired the verification certificate (Kawi, 2021).

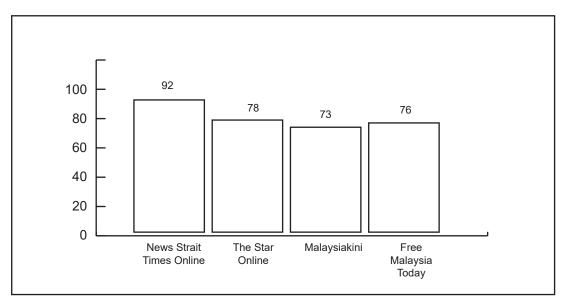


Figure 2: Frequency of human interest frame

Furthermore, there are also a number of news stories that provided a human example or "human face" on the issue or problem under the human interest frame. For example, Tun Dr. Mahathir was quoted as follows after receiving the vaccine: "I did not feel anything at all, and the injection was over in less than a minute. I did not feel any headache, and I hope all Malaysians will get vaccinated in order for us to fight COVID-19. This vaccine will give us protection" (*The Star Online*, 7 March 2021). The news portal also headlined the news "Dr M Gives Thumbs Up After Receiving COVID-19 Vaccine" as an attempt to frame his positive experience with the COVID-19 vaccine. In like manner, Khairy Jamaluddin was also quoted on his experience of getting the *Sinovac* vaccine, saying that "I feel good. No matter what kind of vaccine it is, it is safe. Let us defeat the virus together. Protect yourself, protect everyone!" (Koya, 2021).

Besides, certain news stories were also found to be employing adjectives to stimulate people's feelings towards the COVID-19 vaccination. In "Excitement, Relief" (Tan & Jamil, 2021), the vaccine registrants were portrayed as eager and anxious to get vaccinated and it was even framed in the news lead that they "turned up in droves" (para. 1) to receive their *AstraZeneca* COVID-19 vaccine as soon as the programme kicked off. Another iconic representation of human interest frame in the news was "KJ To Anti-Vaxxers: We Will Make Life Difficult For You" (Babulal, 2021). Similarly covered as well in other online news portals, Khairy Jamaluddin announced that the government would continue to make life "very difficult" (para. 3) for those who choose not to be vaccinated. This news story precisely emphasised how individual and groups, especially vaccine deniers, could be affected by their decision against the COVID-19 vaccines.

Needless to say, the minister's statement immediately generated feelings of outrage and thus received backslash from the society. For instance, in "Stop Bullying Those Who Refuse Vaccination" (2021), the National Union of Bank Employees (NUBE) general-secretary J. Solomon slammed the health minister, saying that his intention was "akin to the government resorting to gangsterism against citizens" (para. 2). In a nutshell, these news stories showed how human interest is at play between the government and the civilians.

Figure 3 shows the frequency of conflict frame found in news published by New Straits Times Online, The Star Online, Malaysiakini, and Free Malaysia Today. As shown in the chart, Malaysiakini was found to be reporting the highest number of news stories using the conflict frame among the selected online news portals. Under this frame, news stories attempted to reflect disagreement between individuals, groups, or countries and reproach or blame one another. For example, the conflict frame could be identified in "'Greedy' Countries" where Khairy Jamaluddin blamed certain rich countries for hoarding the COVID-19 vaccine market, leading to a vaccine supply shortage that affected Malaysia and other developing countries (Chan, 2021a). In a follow-up news on May 5, 2021, the Coordinating Minister further clarified that this unequal distribution of vaccines around the world could slow down Malaysia's third phase of the National COVID-19 Immunisation Programme if the vaccine supplies do not arrive on time (Chan & Harun, 2021). The Star Online also focused on the government minister's disagreement with rich nations hoarding the COVID-19 vaccine market. For instance, Khairy Jamaluddin was cited for his claim that "some rich countries have bought enough vaccines for their citizens three to five times over" (Carvalho, 2021, para. 3).

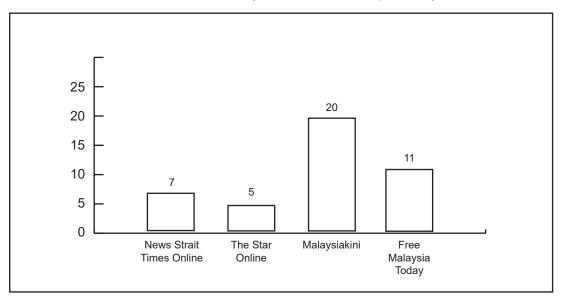


Figure 3: Frequency of conflict frame

In the meantime, the conflict frame was also present when Khairy Jamaluddin denied claims that the Selangor state government had waited for months to get the necessary approval to procure two million vaccine doses for its people. It could be observed that there was a miscommunication among them, to which he responded as follows: "I gave a positive response. However, until now, I have yet to receive any official application from the state government" (Radhi, 2021, para. 3). On a similar note, Khairy also expressed his disappointment on the accusation made by Penang Chief Minister Chow Kon Yeow and former Chief Minister Lim Guan Eng that the Federal Government had deliberately stood in the way of the state government obtaining the vaccine, to which he retaliated by showing evidence that the private company's offer to donate COVID-19 vaccines to the Penang state government was bogus. This news story particularly illustrated the conflict frame well by citing his strong response regarding this matter.

Thus, it is apparent that the conflict frame is mostly associated with the ministers' denial against assertions made towards them with regards to the COVID-19 vaccination in Malaysia. For example, Coordinating Minister Khairy Jamaluddin had denied the allegation that suggested a link between blank vaccine shots and illegal vaccine sales, stating that "empty vaccinations have nothing to do and are not linked to any vaccinationselling syndicate" (Lee & Woon, 2021, para. 4). Other conflict-framed news can also be found, such as "Khairy's Advisers Refute Siti Mariah On Selangor's Vaccination Issue" (2021) where Khairy Jamaluddin's advisers responded to Selangor health executive councilor Siti Mariah Mahmud's criticisms about vaccine supply in the state. In a separate news titled "Doctors' Group Roasts 'Clueless' CITF Justification To Drop GPs" (2021), the Malaysian Medical Association (MMA) criticised the COVID-19 Immunisation Task Force's (CITF) for excluding general practitioners (GPs) in the Klang Valley from the National COVID-19 Immunisation Programme (NIP) and demanded an explanation for their cluelessness. Malaysiakini also framed several other related news with the conflict frame, where the disagreement between individuals and groups can be easily observed within the news headlines itself: "Mall Association Denies Profiting From On-Site Vaccination Programme" (2021), "Police Dismiss Vaccine Recipient's Claims, Probe Partner's Tweets" (2021), and "MTUC Against Sacking Of Workers Who Refuse Vaccination" (2021).

Figure 4 shows the frequency of morality frame found in news published by *New Straits Times Online, The Star Online, Malaysiakini*, and *Free Malaysia Today*. The results indicate that only a handful of news stories were reported using the morality frame, with *New Straits Times Online* ranked first in the number of morality-framed news.

When the reporter attempted to frame the news using this frame, the story would contain a moral message, or provide particular social recommendations about how to behave. For example, "Kelantan Sultan" was one such news that truly represented the morality frame. In the news, the Sultan of Kelantan reminded those who have no urgent matters in Kelantan not to return to the state to reduce the risk of COVID-19 infection among the elderly and the high-risk group (S. M. Abdullah, 2021b). The ruler also urged the people to play their roles by adhering to the standard operating procedures (SOP) and take the spike in COVID-19 infections in the state seriously. Alternatively, the morality frame could also be found in "Authorities Say Cop Did Not Die After Receiving COVID-19 Vaccine" where Perak police chief was cited for his statement that stern action will be taken against individuals who recklessly spread false information concerning the death of a police officer after getting the vaccination (Arif, 2021, para. 10).

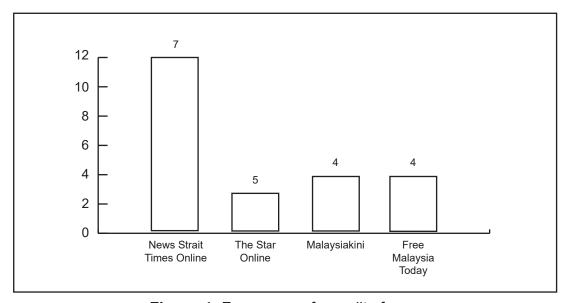


Figure 4: Frequency of morality frame

In "Don't Believe Fake News About COVID-19 Vaccines" (2021), the morality frame could be found present when The Communications and Multimedia Ministry's Quick Response Team advised the public to not disseminate fake news about the vaccines on social media which could lead to anxiety and confusion among the community. The same news also quoted senior citizens who successfully completed two doses of COVID-19 vaccine where they urged those influenced by the negative claims to register for vaccination as soon as possible, not just to protect themselves but also to assist others develop group or herd immunity. Along the same line, in "Cops Probe Fake News" (2021), Federal CID director Abd Jalil Hassan Jalil reminded the public to be smart social media users

by not spreading fake news, adding that police would not compromise and would take stern action against anyone who deliberately threatened public order and safety. In a separate news, vaccine sceptics were asked to pay heed to Dr Samsu Ambia Ismail, who took the COVID-19 vaccine despite having natural immunity after his own brush with the virus. He encouraged people to get vaccinated as soon as possible because in his words, "At the moment, the vaccine is the only available option with which we can protect ourselves" (Tang, 2021, para. 4). All in all, the above-mentioned news stories have aptly delivered a moral message and offered specific social prescriptions about how to behave to the general public in tackling the COVID-19 pandemic.

Figure 5 shows the economic consequences frame found in news published by New Straits Times Online, The Star Online, Malaysiakini, and Free Malaysia Today. The results show that only a few new stories were framed under the economic consequences frame, slightly more than that of the morality frame. For example, the government had announced a "COVID-19 vaccine injury fund", with RM10 million allocated for the purpose of special financial assistance to compensate Malaysians and foreigners who might suffer serious side effects due to the COVID-19 vaccination (Tong, 2021). In a separate news, it was reported that the government would use RM5 billion of the RM9.1 billion from the return on investment (ROI) generated from the National Trust Fund (KWAN) to procure COVID-19 vaccines in order to accelerate its goal of vaccinating 80 per cent of its 32 million population by February 2022 ("Govt To Tap RM5bil", 2021). A month later, it was also reported that the Ministry of Science, Technology and Innovation would be providing all Members of Parliament (MP) with a RM20,000 allocation each in particular for outreach purposes to promote the COVID-19 National Immunisation Programme (NIP) ("Govt Provides RM20k", 2021).

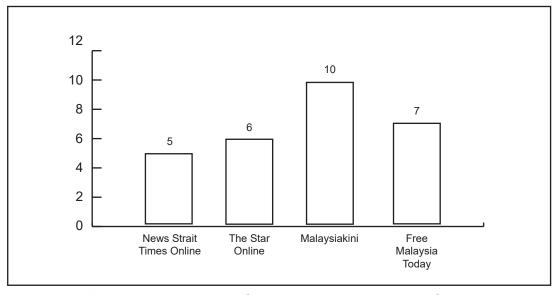


Figure 5: Frequency of economic consequences frame

Moreover, the economic consequences frame could be found present in "Khairy: Additional Allocation" (2021), where the news reported that an additional RM2 billion to RM5 billion budget for the National COVID-19 Immunisation Programme was required after considering various factors, including increasing expenses to obtain the COVID-19 vaccine and costs to administer the programme. In a separate news, the Coordinating Minister also stated that "some of the funds earmarked for the vaccination programme would go towards ramping up the sequencing of COVID-19 samples collected in the country", to which he insisted the Finance Ministry to "put aside enough money for genomic surveillance" so that the virus could be better understood ("Vaccinated Travellers", 2021, para. 16, 20).

As observed, news that used the economic consequences frame generally brought attention to the costs and expenses in administering COVID-19 vaccines throughout the country. They gave a clearer picture to members of the society about the financing and budgeting of the National COVID-19 Immunisation Programme, i.e., how and where money had been spent throughout the programme. Besides, the economic consequences frame was also detected when the news stories attempted to make a reference to the economic repercussions of taking or not taking a certain course of action. For instance, Khairy Jamaluddin announced that the government will impose a ceiling price on the private sale of booster jabs (i.e., *Sinovac* vaccines) in order to control the prices for booster jab sales in the private market (Lee, 2021).

Discussion

As a core media effects theory, framing is vital in message orientation to people. It is a concept that refers to how the media interpret or direct audience to interpret a news piece by emphasising a news angle based on its assessment of and connection to prior comparable incidents, which has a significant relationship to how the people make sense of and react to the entire story. According to Adekunle and Adnan (2016, p. 368), media framing is used to provide evidence to "believe or disbelieve, support or dismiss, involve or withdraw, change or persist, and influence or discourage" by manipulating news stories in accordance with the media's goal to affect the public opinion about a situation. On this account, the present study attempts to investigate the framing of COVID-19 vaccination news by selected Malaysian online news portals.

Resultsfromtheprevious chapter which employed the five generic news frames by Semetko and Valkenburg (2000) shows some significant results. Overall, the most common frames are, in order of prevalence, attribution of responsibility, human interest, conflict, economic consequences, and lastly morality.

This sequence of arrangement for framing the news stories on COVID-19 vaccination applied to all online news portals under study, but significant difference was found between the online news portals and their use of news frames in the coverage of COVID-19 vaccination in Malaysia. This difference in the use of news frames was also identified in many previous framing studies (e.g., Dauda & Hasan, 2018; Ghazali et al., 2020; Lim, 2014; Nor & Zulcafli, 2020; Villanueva, 2021) in which the news frames under investigation by the respective scholars were not given equal importance by the news media in their coverage of issues and events. Borrowing from Ghazali et al. (2020), it could be explained that the online news portals did not seek to employ other types of frames that could have been more persuasive and informative in covering news stories about COVID-19 vaccination in Malaysia.

All online news portals suggested a high tendency of attribution of responsibility to the government to figure out solutions for issues. As the National COVID-19 Immunisation Programme involves all levels of society, it is the government's prime obligation to assure the smooth implementation of the vaccination programme. Lim (2014) asserted that this heavy dependence of Malaysian online news portals on the news sources from the government empowers government officials to take on the role of opinion leaders in problem definition.

In general, news that framed the issue using the attribution of responsibility frame suggested the government to come up with effective solutions to address any issues or concerns that emerged amid the administration of COVID-19 vaccines to the people. Emphasis was given to the government officials and authorities because they are the ones who have the final say and take decisive actions about the National COVID-19 Immunisation Programme. In case any issues arise, news stories under this frame also tended to attribute responsibility to the government so solutions could be identified, and immediate actions would be taken to alleviate the impact of the issues. They urged and called for government action to facilitate the implementation of COVID-19 vaccination programme.

In essence, the results correspond to Nor and Zulcafli (2020)'s findings such that the news attempted to portray the government to be in total control of the situation despite the virus' threat to the health and economic conditions in the country. It is also this biased reporting through selection of news sources that preserves the gatekeeping function of the media, as argued by Lim (2014). At the same time, the results also show that the responsibility was attributed to the individuals in such a way that they are held responsible for any illegal behaviour or lack of cooperation with the government on the National COVID-19 Immunisation Programme.

Next, the results show that human interest frame was the second most featured frame found in news stories related to the COVID-19 vaccination in Malaysia. These news stories are considered as persuasive in the way that they build public confidence about the COVID-19 vaccination through a specific situation or exemplar. In this vein, people are more likely to receive their vaccination shots because the vaccines have been proven safe and effective by the authority figures in the country who got vaccinated first. In concordance with Ghazali et al. (2020)'s study, the scholars argued that the Malaysian news media can play important roles in correcting the misconception about and educating people regarding vaccines by disseminating vaccine-related information and possibly creating awareness on the danger of vaccine misinformation. On top of that, news reported using the human interest frame primarily reflected on the individual thoughts about the COVID-19 vaccination. These news stories were more centred on the person and drew attention to their experience in getting vaccination shots, such as found in Nor and Zulcafli (2020)'s study where most news reports reflect fear, anxiety, and uncertainty that are felt by most Malaysians.

While not regularly appearing in news stories, conflict frame came about as the third common news frame used in the coverage of COVID-19 vaccination news in Malaysia. According to Putnam and Shoemaker (2007), a conflict could revolve around disagreement, friction between opposing parties, incompatibility of perspectives, and politicians or stakeholders criticising one other in the media. Under the conflict frame, online news portals were able to frame the news stories by reflecting the differing stance between both involved parties on issues pertaining to the COVID-19 vaccination.

In this study, it has been found out that the news stories would relate to two sides, or to more than two sides of the issue or problem. This simply implies that both the government and its opponents were given an equal opportunity to define, take a stand, and respond on the emerging issues. Indeed, exposure to conflict news stories may help individuals understand what is at risk and why decision-making at the government level is critical (Schuck, Vliegenthart, & de Vreese, 2016). For the readers, these news stories could promote a more balanced view on the subjects, as well as an increase in the perceived severity and news value of an issue (Lecheler & de Vreese, 2019).

For the morality frame, only a small number of news stories were found to be using it by the online news portals in the coverage of COVID-19 vaccination in Malaysia. This news approach contextualised the occurrence or problem in terms of "values, moral prescriptions, normative messages, and religious or cultural tenets" (Semetko & Valkenburg, 2000, p. 96).

Previous research showed that it is the least popular generic frame in the news, possibly because it defies journalists' notions of impartiality (Valenzuela, Piña, & Ramírez, 2017), which is consistent with the present study's findings. In fact, under the morality frame, journalists are bound to be on one side of an argument and speak for the said argument as raised by its proponents.

As a result, it often appears in news coverage through the kinds of sources interviewed and selected quotes (Neuman, Just, & Crigler, 1992). For example, the morality frame was found in the news stories when an authority figure urged the general public to take necessary precautionary measures and give full cooperation for the common good. This includes adhering to the standard operating procedures such as to observe social distancing and to wear a mask, having confidence in the COVID-19 vaccines and getting completely vaccinated as soon as possible, not believing in any fake news regarding the vaccines and refrain from sharing them to others, so on and so forth. From here, it can be observed that the morality frame is employed quite commonly in avoidable issues, which suppose a considerable degree of controllability and intentionality (An & Gower, 2009).

Similar to the morality frame, the economic consequences frame is seldom used in the coverage of COVID-19 vaccination news in Malaysia. According to Neuman, Just, and Crigler (1992), it is common for hard news to frame current affairs in terms of their economic repercussions because it signals high newsworthiness. However, considering the present study is under the purview of health communication, it makes sense that this frame hardly played a role in the news stories, if at all, because it is simply ineffective at moving vaccine intention (Motta et al., 2021).

This is, however, in contrast to Villaneuva (2021)'s study where the scholar found that concerns for the economy was prominent in the Malaysian news reports of the COVID-19 outbreak. Hence, journalists would still prefer to frame the news stories using other frames than the economic consequences frame despite its attributed newsworthiness.

Furthermore, the research on framing effects demonstrates that the economic consequences frame was more sophisticated and complicated than the human interest or conflict frames, owing in part to its requirement for the use of technical jargons (Neuman, Just, & Crigler, 1992). Because of its heavier reliance on abstract language and statistics, the readers usually consider this kind of news stories as less engaging and persuasive than the other news that use a different news frame.

The present study provides useful insights on the news frames employed by Malaysian online news portals in their coverage of COVID-19 vaccination news in Malaysia. The news media play a major role in informing the public about a nationwide vaccination initiative whereby its function is vital in shaping people's opinion about the vaccination as well as encouraging vaccine uptake. In relation to this, Anuar (2005) asserted that the primary function of the news media in Malaysia is to represent the government to impart information and disseminate its policies for the betterment of the population.

Therefore, Malaysian online news portals have served as partners with the government and performed their social responsibility role as subsets of the Malaysian media (Dauda & Hasan, 2018) by highlighting all COVID-19 vaccination issues in their coverage. This means that the online news portals, as core elements of the civil society, have conveyed the public health strategies which the government considers paramount for the country to achieve herd immunity against COVID-19.

Furthermore, they also serve as watchdogs in monitoring the performance of government on the National COVID-19 Immunisation Programme, ensuring practical and informed decision making among the readers and the citizens. Using Semetko and Valkenburg (2000)'s five generic news frames, this study can assist media gatekeepers and reporters in providing adequate and fair coverage of an ongoing government programme. Identifying the association between the news frames will provide a firm basis for understanding how people see and react to the way media portray or frame news about a national health initiative, particularly the COVID-19 vaccination.

Conclusion

Media coverage of COVID-19 vaccination and related problems is no longer a new phenomenon across the globe. Research on the news coverage of COVID-19 vaccination and the frames used in the news remain scarce, especially in Malaysia. The present study is one of the first attempts to explore the use of news frames by the news media in reporting COVID-19 vaccination news in Malaysia. The researcher seeks to explain how different frames were used by the selected Malaysian online news portals to shape social perceptions towards the COVID-19 vaccination. The findings of this research reinforce the power of framing as a mechanism for changing the public's view about the need for news organisations and the government to take action to address the problems associated with the COVID-19 vaccination in Malaysia.

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