# AN ANALYSIS REVIEW OF INSTAGRAM AS THE MAIN PLATFORM FOR UP-TO-DATE COVID-19 INFORMATION USED BY THE MINISTRY OF HEALTH IN BRUNEI DARUSSALAM

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#### Abstract

With the development of diverse social media platforms such as Instagram, Twitter and YouTube where dissemination of information is limitless. Therefore, social media has become a major source of platform for the public to disseminate and acquire latest information on Covid-19 that happen within their own country or worldwide. Today, the world is still struggling to combat Covid-19 pandemic. Advancement in social media has brought a lot of benefits and drawbacks to a country especially in providing information about Covid-19 in order to prevent and control this pandemic from affecting daily life activities. This study aimed to analyse Instagram posts uploaded by Ministry of Health (MOH) in Brunei Darussalam on their official Instagram account as their main platform to provide information on Covid-19 pandemic to the public. This qualitative study was carried out using the thematic analysis method. Data was retrieved and analysed from the content uploaded from 7<sup>th</sup> January 2020 until 30<sup>th</sup> June 2020 on MOH's Instagram where posts related to Covid-19 in Brunei Darussalam. As result, a total of 487 posts related to Covid-19 pandemic in Brunei Darussalam by MOH for over 6 months were reviewed. Out

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of 487 posts, 479 had photo-type contents and 28 had videotype contents. The results also discovered that creative infographic posts uploaded on Instagram helps to enhance the public knowledge on Covid-19 precautions and this pertinent knowledge contributes to early mitigation of Covid-19 outbreak in Brunei Darussalam.

**Keywords:** Covid-19, Instagram posts, Information, Brunei Darussalam

# Introduction

With the development of diverse social media platforms such as Instagram, Twitter and YouTube where dissemination of information is limitless. Therefore, social media has become a major source of platform for the public to disseminate and acquire latest information on Covid-19 that happen within their own country or worldwide. Today, the world is still struggling to combat Covid-19 pandemic. Advancement in social media has brings a lot of benefits and drawbacks to a country especially in providing information about Covid-19 in order to prevent and control this pandemic from affecting our daily life activities.

There is no exception for a small country like Brunei Darussalam with less than 450,000 population. Brunei Darussalam has recorded its first local Covid-19 case on 9<sup>th</sup> March 2020 and increased drastically to 129 cases by 31<sup>st</sup> March 2020. In compare with other small countries like Singapore and Taiwan, undoubtedly, Brunei Darussalam has implemented a successful response operation where the last local case recorded was on 7<sup>th</sup> May 2020 with a total of 141 Covid-19 cases for over 3 months. Ministry of Health (MOH) has led the nation with effective strategies and implemented measures in addressing the pandemic. In order to control the outbreak of Covid-19, MOH has adopted rules and regulation based on World Health Organization in terms of self-isolation or selfquarantine, practise social distancing and stay-at-home. With the introduction of BruHealth application on 14<sup>th</sup> May 2020, QR code in all public and private sectors were implemented. It is an obligation for public to scan QR code by using their BruHealth application in order for the MOH to do contact tracing easily if there is another outbreak. Certainly, for any individual who found to be noncompliance to any rules and regulations sanctioned by MOH, the government has enforced fines and jail terms.

## Objective

The main objective of this study is to analyse the Instagram posts uploaded by Ministry of Health (MOH) in Brunei Darussalam on their official Instagram account as their main platform to provide information on Covid-19 pandemic to the public. Other specific objective is to discuss the public's attentiveness and anticipation in finding out events related to Covid-19 pandemic.

### Methodology

This qualitative study was carried out using the thematic analysis method. Data was retrieved and analysed from the content uploaded from 7<sup>th</sup> January 2020 until 30<sup>th</sup> June 2020 on MOH's Instagram where posts related to Covid-19 in Brunei Darussalam.

A data extraction form was prepared to facilitate the data collection from MOH's Instagram posts. The data extraction form had 5 items: 1- Upload date, 2- Content

description, 3- Number of likes, 4- Number of views, 5-Number of posts per day. The inclusion criteria for the Instagram posts were advice, guidelines, steps, precautions, statistics and standard operation procedures (SOPs) related to Covid-19 pandemic in Brunei Darussalam. The data collected was systematize in Excel. As result, a total of 487 posts related to Covid-19 pandemic in Brunei Darussalam were posted by MOH for over 6 months were reviewed.

The contents of the posts were analysed using the thematic analysis method based on a study by Zarei et al. (2020). Basically, there are six steps in this method: 1-familiarization with data, 2- preliminary coding, 3- finding themes, 4- reviewing themes, 5- defining and naming themes, and lastly, producing report.

In the first step, the key contents of the photos and videos were extracted separately and arranged into a table based on month. While in the second step was to categorize each post into potential themes. In the third step, the themes were defined based on their content's discussion and the aspect of data which they represent. In the final step, the themes were named according to their definition depends on the contents of each post about Covid-19 in Brunei Darussalam.

Instagram was considered to be a system consisting of input, process and output. Henceforth, this study used a simple system analysis model called the input-processoutput (IPO) which previously used by Agus and Aziza (2020) in their research. Based on IPO model for this study, there were three general categories; information requires by Bruneian society, socio-cultural conditions of the society and the problems faced by the society during Covid-19 pandemic as presented in Figure 1. The themes and subthemes extracted in the thematic analysis method were considered as the output of this model which presented in Table 1.

### Results

As result, a total of 487 posts related to Covid-19 pandemic in Brunei Darussalam posted by MOH for over 6 months were reviewed. Out of 487 posts, 479 had photo-type contents and 28 had video-type contents. From the analysis of the contents, a total of 5 themes emerged from the retrieved posts. These themes include epidemiology and statistics, strategies and parameters, general prevention guidelines, diagnosis and treatment, and lastly, community support and involvement. The corresponding themes, subthemes and samples of examples are presented in Table 1. An Analysis Review of Instagram as the Main Platform for Up-To-Date Covid-19 Information Used by The Ministry of Health in Brunei Darussalam

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Input	<ul> <li>1) Information requires by Bruneian society</li> <li>Scientific, legit and valid information about Covid-19 in Brunei Darussalam</li> <li>Well established and trusted websites such as WHO and MOH, Brunei Darussalam besides their official social media platform such as Instagram and Facebook</li> <li>2) Social and cultural conditions of society</li> <li>compliance to new norms</li> <li>3) Problems faced by the society</li> <li>unemployment</li> <li>lack of hospital resources and equipment including heatlhcare workers and professionals</li> <li>false and misleading information on Covid-19 which caused panic to the public</li> <li>mental health or anxiety</li> </ul>
Process	<ul> <li>Using well-understood language; information provided in Malay and English</li> <li>Clarification of do's and dont's while in the public areas</li> <li>Using animations/infographics</li> <li>Provide up-to-date daily data and statistics</li> </ul>
Output	<ul> <li>General prevention guidelines and advices</li> <li>Hygiene</li> <li>Healthy diet and lifestyle</li> <li>Diagnosis and treatment</li> <li>Religious</li> <li>Conditions of healthcare system</li> <li>Self-isolation</li> <li>Self quarantine</li> <li>Misleading and false information / news</li> <li>Worldwide news</li> </ul>

Figure 1: Instagram system using IPO model.

Theme	Sub-theme	Example posts
Epidemiology and statistics	<ul> <li>No. of active cases</li> <li>No. of total cases</li> <li>No. of death</li> <li>No. of people in quarantine</li> <li>No. of people being</li> </ul>	9 <sup>th</sup> March 2020: A media statement on 1 <sup>st</sup> local Covid-19 case in Brunei Darussalam (985 likes)
	SARS-COV test • Patients' conditions	12 <sup>th</sup> March 2020: A media statement on the current covid-19 infection in Brunei Darussalam which stated number of new cases (14) and in total active cases are 25 people (Malay version, 565 likes)
		20 <sup>th</sup> March 2020: An infographic which shown a statistic on number of recoveries: 1, number of active cases: 78, number of people in quarantine: 1664, number of people who ended-quarantine: 101, and lastly, number of people being swab test for SARS-COV: 2468 (813 likes)
		28 <sup>th</sup> March 2020: A media statement on the current covid-19 infection in Brunei Darussalam which stated 1 <sup>st</sup> death of Covid-19 patient. He was case no.25, aged 64 years old, a local Bruneian and was declared to infected on

<b>Table 1:</b> Themes and sub-themes extracted from MOH Instagram's
posts in related to Covid-19 pandemic

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Theme	Sub-theme	Example posts
		12 <sup>th</sup> March 2020 who returned from Malaysia (217 likes) 16 <sup>th</sup> June 2020: An infographic which shown statistic on number of recoveries: 138, number of death: 3 (3 <sup>rd</sup> death was announced due to Covid-19), number of cases: 141, number of new cases: 0 (543 likes)
Strategies and parameter	<ul> <li>Standard operation procedures (SOPs)</li> <li>Government sectors</li> <li>Private sectors</li> <li>Business premises</li> <li>Educational institutions</li> <li>Policies</li> <li>Infectious Disease Act, Chapter 204.</li> <li>Section 34 of the Public Order Act, Chapter 148</li> <li>Rules and regulation</li> </ul>	<ul> <li>15<sup>th</sup> March 2020: Press release on FAQs: mass gathering event's SOPs (532 likes)</li> <li>18<sup>th</sup> March 2020: Infographic on social distancing measures (English version, 401 likes)</li> <li>18<sup>th</sup> March 2020: Press release: Self-isolation requirement commenced on 17th March 2020 to nationalities entering NBD from all control post border: 14 days from the date of arrival (661 likes)</li> <li>19<sup>th</sup> March 2020: A fake news via WhatsApp where there was a need of donation and support aid of foods and drinks for front-</li> </ul>

Theme	Sub-theme	Example posts
		liners at NIC, Tutong (214 likes) 11 <sup>th</sup> April 2020: Fake news via WhatsApp related to <i>Kembara</i> Borneo 40 (355 likes) 18 <sup>th</sup> May 2020: A video on brief tutorial in using Bru-Health for QR code scan. comments: apps not compatible with their phone (7911 views / 291 likes)
General prevention guidelines	<ul> <li>Tips and advice on what to do during</li> <li>Self-isolation</li> <li>Self-quarantine</li> <li>In public places</li> <li>Protecting homes and workplace</li> <li>Personal protective equipment such as mask and glove</li> </ul>	<ul> <li>18<sup>th</sup> March 2020: Infographic on self- quarantine (221 likes) and self-isolation order (182 likes)</li> <li>22<sup>nd</sup> April 2021: Infographic on practicing social distancing 1-2 metres apart at public places (775 likes)</li> <li>2<sup>nd</sup> June 2020: MOH: Etiquettes during Jumaat Friday prayer; guidelines &amp; SOPs (427 likes)</li> </ul>
Diagnosis and treatment	<ul> <li>Medication treatment</li> <li>Medical facts and myth</li> <li>Signs and symptoms when contracted Covid- 19</li> <li>Paraclinical diagnostic methods</li> </ul>	31 <sup>st</sup> March 2021: Smoking damages your lungs and other parts of your body and may increase of getting severe case of Covid-19 (562 likes)

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Theme	Sub-theme	Example posts
		<ul> <li>1<sup>st</sup> May 2020: Low risk isn't no risk, a repost from @WHOWPRO (467 likes)</li> <li>13<sup>th</sup> May 2020: The virus does not discriminate, and neither should we. Lock the virus, not your heart (476 likes)</li> </ul>
Community support and youth involvement	<ul> <li>Covid-19 relief fund</li> <li>Volunteers</li> <li>Sponsorship</li> <li>Corporate social responsibility</li> </ul>	4 <sup>th</sup> April 2020: A video of thank you to @jisbrunei for the contribution of face shields (11,608 views / 1,020 likes) 6 <sup>th</sup> May 2020: A video presented by MOH; " <i>Bersama mu</i> Brunei" in fighting against Covid-19 pandemic in NBD (40,673 views / 3,834 likes)

# Findings

This study has analysed the contents of posts related to Covid-19 pandemic from Ministry of Health, Brunei Darussalam's official Instagram account. The results of the study are in agreement with the findings of Han et.al. (2020) where the public is highly attentive and anticipation in finding out events related to Covid-19 pandemic.

Three major themes in the reviewed posts were "epidemiology and statistics", "strategies and parameters"

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and "general prevention guidelines". There were a lot of posts related to these three major themes and the public became auxiliary conscious of the existence Covid-19 in Brunei Darussalam. The public began to search information related to Covid-19 on various social media platforms particularly in prevention and protection of Covid-19 for themselves and their families.

In the "epidemiology and statistics" theme, the posts were related to up-to date information provided by MOH based on their daily media conference since 11<sup>th</sup> March 2020 until 30<sup>th</sup> June 2020. It is important for the government to provide a precise and accurate information to the public specifically on the subthemes; number of active cases, number of total cases, number of deaths, number of people in quarantine, number of people being SARS-COV test and patients' conditions who were admitted in National Isolation Centre, Tutong.

Based on the analysis of this study, majority number of posts related to Covid-19 were under this theme; "epidemiology and statistics". This post had received 813 likes by Instagram users where an infographic was posted on 20<sup>th</sup> March 2020 which shown a statistic on number of recoveries: 1, number of active cases: 78, number of people in quarantine: 1,664, number of people who endedquarantine: 101, and lastly, number of people being swab test for SARS-COV: 2,468. Another example was a post uploaded on 16<sup>th</sup> June 2020 where the 3<sup>rd</sup> death in Brunei Darussalam due to Covid-19 was stated in the infographic which received 543 likes by Instagram users.

Under the theme "strategies and parameter", Business Continuity Plan was activated in public and private sectors to ensure the effectiveness and efficiency of the government, economy and social in combating Covid-19 pandemic. With the following announcement of movement restriction in Brunei Darussalam on 9<sup>th</sup> March 2020, most Bruneian people stayed at home and complied with the new guidelines and procedures implemented by the government. There was a growing number of infection cases in March 2020, Brunei government began to impose travel restriction out and into the country, and only allow essential travelling with strict regulations and requirements. One of the rules and regulation implemented by Brunei government such as "2 metre apart social distancing" in the public places.

There were a lot of posts emphasizing on the importance of staying at home during Covid-19 pandemic. This is one of the methods that can cut the chain of infection among Bruneian people and keep the situation under control within short period of time. These results are consistent with the findings of Abd-Alrazaq et.al. (2020) who stated that in Twitter, self-quarantine instructed for infected people from 14 to 21 days was frequently mentioned as a way to reduce the spread of Covid-19 among the public.

As advised by the Brunei government, dissemination of information has to be accurate and come from legitimate source. The public should be responsible in forwarding and receiving messages on all social media platforms. This correlated with a study by Merchant and Lurie (2020), they also found out that social media platforms provide a channel for the international dissemination of misinformation and rumours. Additionally, they also mentioned that WhatsApp, Twitter and Facebook accounts' users are actively trying to cause panic and confusion with their information.

In Zarocostas (2020) study, he has highlighted that the rapid spread of inaccurate information in time of Covid-19

presents a serious problem to public health. This study has correlated with Brunei government concerned with the spread of fake and false news or information which could triggered panic among the Bruneian specifically after the announcement of 1<sup>st</sup> local case on 9<sup>th</sup> March 2020 in Brunei Darussalam. As example, on 11th March 2020, there were 3 fake news circulated in WhatsApp in regard to handshaking and first local case as mentioned in the media statement released by MOH on their Instagram post. As quoted in the post's description was "a legal action under Section 34 of the Public Order Act (Chapter 148) can be taken for spreading false news or information that can cause public fear and anxiety, tension and uneasiness; and mislead facts. Any person who, whether orally or in writing or by any other means, spreads false reports or makes false statements likely to cause public alarm or despondency shall be guilty of an office, which carries a three-year imprisonment and a BND3,000 fine." This post had received 614 likes by Instagram users. Notably, Brunei government has addressed these issues effectively by clarifying the ambiguities and transparency to the public about different aspects of situation related to Covid-19 pandemic.

The analysis for posts under "general prevention guidelines" theme showed infographics posts uploaded by MOH to ensure information provided to the public were clear and understandable.

The content analysis showed that posts related to this theme contained information about definition of virus, what to do when you're on self-isolation or self-quarantine at home and development of vaccines. The results of present study regarding the theme "general prevention guidelines" are also consistent with the findings of Lu and Zhang (2020) who reported that deterioration of the pandemic situation in

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China and the policy of isolation became one of the issues discussed on WeChat.

One of the reasons for the attention of Instagram posts to the condition of the healthcare system was to raise public awareness about the situation of healthcare workers and the hardships that they had to endure as a front-liner. On 27<sup>th</sup> March 2020, a video was uploaded by MOH had been viewed for 25,932 times and received 5,351 likes by the public. This video has shown a front-liner in great despair who advised the public to practise social distancing, stay home and stay safe. Possibly, the intention was to make negligence individuals to comply with the new SOPs guidelines to ensure risk of exposure and infection can be reduced. Undoubtedly, there were some people neglected government guidelines such using QR code when entering premises and in practicing social distancing in public places.

Other themes: "diagnosis and treatment" observed in the reviewed Instagram posts were medication treatment, medical facts and myth, and lastly, para-clinical diagnostic methods. Many posts also contained questions and information about challenges of diagnosing and treating infected people such as early symptoms when contracted Covid-19. The results of present study about symptoms of Covid-19 are in agreement with findings of Lu and Zhang (2020). There were only few reviewed posts contained with a religious theme which specifically focus on prayer as Brunei Darussalam has a Muslim majority population. These posts contained requisition of prayers from the Bruneian and other parts of the world to stay positive, strong and resilience to overcome pandemic's challenges together as one community.

# Conclusion

This study analysed the contents of the posts uploaded on MOH's official Instagram account related to Covid-19 pandemic in Brunei Darussalam from 7th January 2020 until 30th June 2020. It was observed that MOH's official Instagram account used various strategies and plans in creating contents about Covid-19 pandemic crisis in Brunei Darussalam. The results also discover that creative infographic posts uploaded on Instagram helps to enhance the public knowledge on Covid-19 precautions and this pertinent knowledge contributes to early mitigation of Covid-19 outbreak in Brunei Darussalam. Consequently, the content analysis of Instagram posts during Covid-19 pandemic can help policymakers to identify specific issues and challenges, and then adopt the gained knowledge for the management of ongoing pandemic and in addressing future pandemics.

## References

- @mohbrunei (2021). Official Instagram account for Ministry of Health (Brunei Darussalam).
- Abd-Alrazaq, A., Alhuwail, D., Househ, M., Hamdi, M., & Shah, Z. (2020). Top concerns of Tweeters during the COVID-19 pandemic: Infoveillance study. *Journal of Medical Internet Research*, Vol.22 (4), e.19016. DOI: 10.2196/19016.
- Aakko, E. (2004). Risk communication, risk perception, and public health Wisconsin Medical Journal, 103 (1), p.25-28.

- Andi Agus & Nurna Aziza (2020). "The Effects of Ethical Factors in Financial Statement Examination: Ethical Framework of the Input Process Output (IPO) Model in Auditing System Basis," International Journal of Financial Research, Sciedu Press, 11(2), p. 136-145. DOI: 10.5430/ijfr.v11n2p136.
- Han, X., Wang, J., Zhang, M. & Wang, X. (2020). Using social media to mine and analyze public opinion related to COVID-19 in China. *International Journal* of Environmental Research and Public Health, 17 (8), p.2788. DOI: 10.3390/ijerph17082788.
- Hayajneh, Y. (2007). Systems and Systems Theory. Management for Health Care Professionals series, p.1-5.
- Lu, Y. & Zhang, L. (2020). Social media WeChat infers the development trend of COVID-19. *Journal of Infection*, 81(1): e82-83. DOI: 10.1016/j.jinf.2020.03.050.
- Merchant, R. & Lurie, N. (2020). Social media and emergency preparedness in response to novel coronavirus. *JAMA*, 323(20), p.2011-2012. DOI:10.1001/jama.2020.4469.
- Zarei, K., Farahbakhsh, R., Crespi, N., & Tyson, G. (2020). A First Instagram Dataset on COVID-19. *ArXiv*, 2004 (12226).
- Zarocostas, J. (2020). How to fight an infodemic. *Lancet*, 395 (10225), p.676. DOI: 10.1016/S0140-6736(20)30461-X.