Original article

The Correlation of Social Media Activity and Engagement of a Health NGO with the Outcome of Fundraising Efforts During the COVID-19 Pandemic

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Abstract

Objective: The COVID-19 pandemic saw the involvement of many health non-governmental organisations (NGO) with volunteering work to help reduce the burden of healthcare workers (HCW). IMAM Response and Relief Team (IMARET) is one which is a chapter under the Islamic Medical Association of Malaysia (IMAM); which is also under the umbrella of the Federations of Islamic Medical Associations (FIMA). IMARET often aids HCWs during natural and manmade disasters to help reduce their burden during challenging times by providing manpower, equipment, and logistical assistance. IMARET utilizes social media (SM) for spreading information on their activities to the public, like the COVID-19 fundraising efforts. The objective of this research is to determine the correlation between their Facebook activities and fundraising outcome.

Materials and Methods: This is a cross sectional study of Facebook posts and its engagement with Billplz, an online payment platform focused during the initial COVID-19 fundraising effort.

Results and Discussion: During the study period, we report 346 Facebook posts with a median (IQR) of 8.00 (6.00,9.00) posts per day. As many as 4,823 donations, median (IQR) at RM34.50(18.75,86.00) was received per day. RM3425.50 (USD 830.52) (1369.00, 8376.25) was collected per day. ‘Organic Likes’ correlated significantly with the number of donations (r=0.419,p=0.006) and amount received (r=0.355,p=0.021). Both ‘Post Reach’ and ‘Shares’ significantly correlated with the number of donations (r=0.405,p=0.008)(r=0.515,p<0.01) and amount received (r=0.373,p=0.015) (r=0.453,p=0.003) respectively. Conclusion: The number of likes, reach and shares significantly correlated with the number and amount of donations received during the initial phase of the IMARET COVID-19 fundraising effort.

Keywords: social media, COVID-19, NGO, non-profit, fundraising

Introduction

Social media (SM) is now recognised as one of the ways to engage a large audience with various topics, including matters related to health 1. It is estimated that there are four billion internet users worldwide, with three billion of those active on SM 2. In Malaysia, WhatsApp and Facebook are the most popular, followed by Instagram, Telegram, Twitter and Linked-in 3. SM is used on a daily basis to access information through personal posts, links to news portals and also websites pertaining to specific information such as current news, gossip and health

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SM disseminates up-to-date information not only within a very small amount of time, but within a large radius. The impact can range from small numbers of information within family and friends to big numbers in critical situations such as natural disasters, civil and political unrests such as the Arab spring. It is still controversial as to whether this type of information brings more good than harm as some of the information relayed via SM can bring to catastrophic results such as rioting and xenophobia. However, studies have demonstrated SM’s usefulness which include, advocacy work, community building, and to also send and receive information besides connecting with and mobilizing the public for certain efforts. Furthermore, cyber-volunteering, an act of volunteer work for an organization completely via online means, through SM is becoming popular among non-governmental organization (NGO) members due to NGO work qualities that encourage such behaviors. A study by Di Lauro et al looking specifically into fundraising and nonprofit organizations suggest that the benefits of using SM for fundraising efforts are due to transparency and accountability, operational involvement and engagement, and improved organizational image. In terms of types of donations that are popular, a study of online fundraising revealed that online donors are also prone to contribute to certain types of causes more than others, especially those related to health.

In Malaysia, among some steps taken to reduce the spread of the COVID-19 pandemic is the movement control order (MCO). It was effective as of 18 March 2020 to 31 March 2020. After two weeks of enforcement, new cases continued to increase, hence the MCO was continued from the 1st until 28th April 2020. At this time, there was quite a burden on the healthcare system whereby there was a lack of manpower due to the heavy burden on the healthcare system, lack of much needed medical equipment, and its impact on the economy especially those in the lower income who could not work during the MCO, including those in quarantine. During this time, there has been an increase in the use of online activity such as working from home, online learning shopping and acquiring new hobbies. Social media particularly has been said to be a potentially good medium for dissemination of important information during the pandemic. Therefore, many health organizations, including Malaysian NGOs, have used SM to raise awareness and promote fundraising on health-related emergencies.

IMAM Response and Relief Team (IMARET) is a relief chapter of the Islamic Medical Association of Malaysia. It was established in 2014 and has been responding to natural and man-made disasters with its relief efforts. Ever since its conception, IMARET has used SM as a tool to communicate information to the public regarding their efforts and educating on health issues at the same time. In March of 2020, IMARET launched its COVID-19 fundraising efforts on SM: one of the social media platforms being Facebook. The objective of this campaign was to raise funds to i) mobilize volunteers in areas in need to assist our dedicated front liners, ii) providing much-needed medical supplies and equipment, and iii) reaching out to the community, especially families affected by quarantine. To date, IMARET has raised more than RM 3 million for this effort. This is a huge achievement since it is run mainly by volunteers who are mostly healthcare professionals. IMARET used many fundraising platforms during the COVID-19 fundraising efforts. This included IMARET’s official bank accounts via direct transfer, other collaborators using their own digital platforms and later transferring to IMARET’s account.

This study aims to analyze the correlation between IMARET Facebook’s posts activities and fundraising efforts on an online fundraising platform focusing on the COVID-19 fundraising effort.

Materials and Methods

Research design

This is a cross sectional study of secondary data analysis of Facebook posts and its engagement, along with the fundraising effort from the platform called Billplz from March 18th till 28th April 2020 focusing on the period of COVID-19 fundraising effort. The inclusion criteria include all Facebook posts in the form of a photo, video, links shared, or text on the IMARET Facebook page during the study period. We excluded any events and polls posts.

Tools

The online fundraising platform; Billplz

The online fundraising platform; Billplz, is an online payment platform that allows users to keep track of payments in real time. Billplz was used even before the COVID-19 fundraising efforts and keeps track of all incoming of fundraising. It also has a tracking system to identify which fundraising efforts are more preferred by donors. Other fundraising platforms were started during the pandemic specifically for
COVID-19 efforts. Apart from that, other platforms were managed via separate parties that had discussed prior agreements with IMARET which usually involved transfer on funds after a certain decided time, therefore restricting some details of the fundraising trend. IMARET’s official accounts had a separate monitoring system and were a mix of other events along with IMARET logistics and administrative transactions. Due to these reasons, we chose Billplz platform to analyse fundraising trends.

**Facebook Insights**

The use of Facebook to engage with the community is a well-known method of dissemination of information. Its impact has also been studied. In addition, Facebook has a feature for pages called “insights” which among other things, measures engagement of the page audience with content. This tool analyses many aspects of the Facebook page and posts by the users and their followers. This includes the number of followers (total and organic), unfollows, likes (total and organic), and dislikes. Apart from that, it describes the types of post (photos, videos, sharing of links), post reach, post reactions, post comments, and post shares.

“Reach” is the estimated number of people who access content from the Facebook page or about the Facebook page. “Impressions”, on the other hand, are the number of times any content in the page or about the page has entered a person’s screen or Facebook wall. “Post reactions” are the likes and several other reactions left by the followers. The “insights’ feature hence enables the administrators of this SM platform to analyse its posts and its engagement.

**Ethical considerations**

Permission for analysis was obtained from IMARET Executive committee members. Ethical approval was obtained from Ethics Committee for Research Involving Human Subjects Universiti Putra Malaysia (JKEUPM-2020-356).

All data obtained will be kept confidentially and used for research purposes only. No personal data can be obtained from Facebook insights, and data from Billplz are only on amount and the frequency of donations involved. No data of the donors is revealed.

**Data management and statistical analysis**

Data entry and analysis was done using the ‘Statistical Package for Social Sciences’ (SPSS) programme, version 24.0. Statistical significance is decided at p<0.05 with 95% confidence interval (CI). The post and insights were reported using descriptive statistics. Spearman correlations were used to analyse continuous data between post with engagement and the total number and amount of donations.

**Results**

**Social Media Engagement & Donations**

During the period studied, the administrators of the IMARET Facebook page published a total of 346 Facebook posts, a median (IQR) of 8.00 (6.00,9.00) posts per day, with a minimum of 4 and maximum

| Table 1: Insights and Fundraising Efforts |
|------------------------------------------|
| Types of Posts                           |
| photos                                   |
| 2                                        |
| 15                                       |
| 7.00                                     |
| 5.00, 9.00                               |
| 326                                      |
| 85.79                                    |
| Links                                    |
| 0                                        |
| 3                                        |
| 0.00                                     |
| 0.00,0.00                                |
| 15                                       |
| 3.95                                     |
| videos                                   |
| 0                                        |
| 3                                        |
| 1.00                                     |
| 0.00, 1.00                               |
| 42                                       |
| 11.05                                    |
| Total                                    |
| 4                                        |
| 16                                       |
| 8.00                                     |
| 6.00,9.00                                |
| 380                                      |
| 100                                      |
| Followers on FB                          |
| Total Followers                          |
| 10289.00                                 |
| 11658.00                                 |
| 11068.50                                 |
| 10754.25, 11529.75                       |
| Organic Followers                        |
| 8                                        |
| 87                                       |
| 28.50                                    |
| 15.75,53.75                              |
| Unfollows                                |
| 0                                        |
| 4.00                                     |
| 1.00                                     |
| 0.00,2.00                                |
| Engagement                               |
| Likes                                    |
| Total Likes                              |
| 9996                                     |
| 11272                                    |
| 10720.50                                 |
| 10430.00, 11152.00                       |
| Organic Likes                            |
| 7                                        |
| 80                                       |
| 25.50                                    |
| 14.50,50.00                              |
| Unlikes                                  |
| 3                                        |
| 3                                        |
| 1.00                                     |
| 0.00,2.00                                |
| Post Reach                               |
| Reactions                                |
| 2424                                     |
| 19652                                    |
| 5270.50                                  |
| 3467.50, 8442.00                         |
| Comments                                 |
| 0                                        |
| 224                                      |
| 12.50                                    |
| 5.75,35.25                               |
| shares                                   |
| 4                                        |
| 147                                      |
| 35.00                                    |
| 18.00, 68.00                             |
| Fundraising Efforts                      |
| Number of Donations                      |
| 3                                        |
| 1207                                     |
| 34.50                                    |
| 18.75,86.00                              |
| Amount Received (RM)                     |
| 50                                       |
| 64137.75                                 |
| 3425.50                                  |
| 1369.00,8376.25                          |
| 347,921.79                               |
of 16 posts. Out of these posts, 298 (86.13%) were photos, 13 (3.76%) links, and 35 (10.12%) were videos. IMARET received a total of 4,823 donations, median (IQR) at RM34.50 (18.75,86.00) per day (range RM3 – 1,207). The median (IQR) amount collected per day is RM3425.50 (USD 830.52) (1369.00, 8376.25). Details can be seen in Table 1.

The total number of followers for the IMARET Facebook page increased from 10,289 to 11,658 while total ‘Likes’ went up from 9,996 to 11,272 (figure 1& 2).

**Impact of Social Media Activity on Donations**

Table 2 shows the correlations between insights and the fundraising efforts. There was no significant correlation between the total number of posts published each day, and either the number of donations (r = 0.255, p = 0.103), or the amount received that day (r = 0.259, p = 0.097).

In terms of engagement, ‘organic Likes’ correlated significantly with the number of donations (r = 0.419, p = 0.006) and amount received (r = 0.355, p = 0.021). Similarly, ‘Post Reach’ was also significantly correlated with number of donations (r = 0.405, p = 0.008) and amount received (r = 0.373, p = 0.015). The number of ‘Shares’ was also significantly correlated with the number of donations (r = 0.515, p < 0.01) and amount received (r = 0.453, p = 0.003). No significant correlations were observed between ‘Comments’ and the financial outcomes.

**Discussion**

To our knowledge, this is a unique study looking into the correlation between social media (SM) posts and fundraising activity in a health non-government organization (NGO) during the COVID-19 pandemic. We found significant factors that correlated with the number and types of donations received. The information obtained can help administrators of health NGOs with SM platforms to improve their strategy in raising much needed funds.

In terms of popular types of posts on social media, our study reports an affinity towards posting photos by the administrator. This may be due to the popularity of photos as a SM content for attracting the audience. In a study done in a British museum’s social media site to analyse the number of clicks on posts, it was reported that clicks on photos were higher than those of videos and links 21. This was also reflected in a German study, where it was reported that in a

![Figure 1: Total followers](image1)

![Figure 2: Total Likes](image2)

### Table 2: Correlations between social media activity and engagement with number of donations and amount received

|                      | Spearman’s rho | P value |
|----------------------|----------------|---------|
| **Organic Likes**    |                |         |
| Number of donations  | 0.419          | 0.006   |
| Amount received      | 0.355          | 0.021   |
| **Total Posts**      |                |         |
| Number of donations  | 0.255          | 0.103   |
| Amount received      | 0.259          | 0.097   |
| **Shares**           |                |         |
| Number of donations  | 0.515          | <0.01   |
| Amount received      | 0.453          | 0.003   |
| **Comments**         |                |         |
| Number of donations  | 0.405          | 0.008   |
| Amount received      | 0.373          | 0.015   |

* Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level
government official FB page, posts for photos and videos increased their citizen’s reaction and was noted to be an element of successful communication. Apart from that, they also reported that posts with images, links and contents that are up-to-date, garners popularity. However, in a study to investigate the factors associated with good engagement rates among internet users on the FB page of Ministry of Health Malaysia, where 2123 posts were selected, and data was gathered from FB insights, significant positive engagement was observed with video posts, afternoon posts and posts made after office hours. Another study by a health academic science library in the US found that the number of posts per day affected the number of engagements from its Facebook followers. Our study found the number of ‘likes’, ‘reach’ and ‘shares’ on our Facebook page were significantly related to the frequency and amount donated to our cause in fundraising during the COVID-19 pandemic. There are many factors that affect donations to an organization apart from engagement of a social media platform including sociodemographic factors, attitude and involvement in charity or a nonprofit organization. Specifically, for disaster situations (i.e. recovery situation), factors reported to have no influence on a donor’s decision were individual’s attitudes on the government’s role. Another study report that expressed positive emotions are associated with donations and volunteering particularly those that focus on social problems, specifically social bonding. In terms of volunteering, a Malaysian study suggests the volunteering platform is a method for one to express their altruism and humanitarian values which can arguably be closely linked to feeling. Therefore, we hypothesize that emotions play an integral role in donations, the act of volunteerism, as well as engagement on social media. During the initial phase of COVID 19, many felt strong emotions about the unprecedented situation and reacted strongly, including by way of donations via SM. On this note, it is very difficult to predict emotions, however data suggests that personalization of a content may gauge more reactions. Hence, the COVID 19 pandemic had seriously impacted everyone on a personal level, making them more responsive towards the situation. Another integral part of this campaign, which was not covered by the scope of this study, was the involvement of influencers in the campaign using mass media to promote the campaign. The influencers, however, were mainly active on Instagram and promoted via their own digital fundraising platform.

**Limitations**

The limitation of this study is that we only used a single social media platform and donation platform. We propose a larger study using other available SM and donation platforms for a more accurate study.

**Conclusion**

We report that the most popular type of posts were photos by the IMARET FB administrators, while the number of followers increased during the period of study. We also found that the number of likes, reach and shares significantly correlated with the number and amount of donations received.

We suggest more studies to investigate different social media and donations platforms involving other healthcare NGOs to explore this topic.

**Source of fund (if any)**

None

**Conflict of interest**

None

**Ethical clearance**

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**Authors’ contribution**

AAR, AYY and MII conceived and designed the study and analysis. AAR, NSZ and MII did the data collection. AAR and MII analysed the data. AAR and PR did literature review and write up. All authors agreed on the final manuscript.
References

1. Rashid AA, Devaraj NK. Doctors and Social Media – Good, Bad or Both? A Malaysian Perspective. Int J Hum Health Sci 2020;4(3):174. DOI: http://dx.doi.org/10.31344/ijhhs.v4i3.196

2. Hootsuite. The Global State of Digital in 2019 Report [Homepage on the Internet]. Hootsuite. 2020 [cited 2020 May 11];Available from: https://hootsuite.com/pages/digital-in-2019

3. Internet Users Survey | Malaysian Communications and Multimedia Commission (MCMC) [Homepage on the Internet]. Malaysian Communications and Multimedia Commission (MCMC) | Suruhanjaya Komunikasi dan Multimedia Malaysia (SKMM). 2018 [cited 2020 Jan 18];Available from: https://www.mcmc.gov.my/en/resources/statistics/internet-users-survey

4. MCMC. Internet User Survey 2020 [Homepage on the Internet]. OFFICIAL PORTAL OF MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION. 2020 [cited 2021 Jan 15];Available from: https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/IUS-2020-Infographic.pdf

5. Kwak H, Lee C, Park H, Moon S. What is Twitter, a social network or a news media? [Homepage on the Internet]. In: Proceedings of the 19th international conference on World wide web - WWW ’10. Raleigh, North Carolina, USA: ACM Press, 2010 [cited 2021 Jan 15]; p. 591.Available from: http://portal.acm.org/citation.cfm?doid=1772690.1772751

6. Pee LG. Trust of Information on Social Media: An Elaboration Likelihood Model [Homepage on the Internet]. In: CONF-IRM 2012 Proceedings. 2012; p. 9.Available from: http://aisel.aisnet.org/confirm2012/29

7. Chenzi V. Fake news, social media and xenophobia in South Africa. African Identities 2020;1–20. DOI: https://doi.org/10.1080/14725843.2020.1804321

8. Raja-Yusof R-J, Norman A-A, Abdul-Rahman S-S, Nazi N, Mohd-Yusoff Z. Cyber-volunteering: Social media affordances in fulfilling NGO social missions. Computers in Human Behavior 2016;57:388–397.DOI: https://doi.org/10.1016/j.chb.2015.12.029

9. Di Lauro S, Tursunbayeva A, Antonelli G. How Nonprofit Organizations Use Social Media for Fundraising: A Systematic Literature Review. IJBM 2019;14(7):1. DOI: https://doi.org/10.5539/ijbm.v14n7p1

10. Saxton GD, Wang L. The Social Network Effect: The Determinants of Giving Through Social Media. Nonprofit and Voluntary Sector Quarterly 2014;43(5):850–868.

11. Aziz NA, Othman J, Lugova H, Suleiman A. Malaysia’s approach in handling COVID-19 onslaught: Report on the Movement Control Order (MCO) and targeted screening to reduce community infection rate and impact on public health and economy. J Infect Public Health 2020;13(12):1823–1829. DOI: https://doi.org/10.1016/j.jiph.2020.08.007

12. Ganasegeran K, Ch’ng ASH, Looi I. COVID-19 in Malaysia: Crucial measures in critical times. J Glob Health [homepage on the Internet] 2020 [cited 2021 Jan 20];10(2). DOI: https://doi.org/10.7189/jogh.10.020333

13. Khor V, Arunasalam A, Azli S, Khairul-Asri MG, Fahmy O. Experience from Malaysia During the COVID-19 Movement Control Order. Urology 2020;141:179–180. DOI: https://doi.org/10.1016/j.urolgy.2020.04.070

14. Heikal Ismail M, Ghazi TIM, Hamzah MH, et al. Impact of Movement Control Order (MCO) due to Coronavirus Disease (COVID-19) on Food Waste Generation: A Case Study in Klang Valley, Malaysia. Sustainability 2020;12(21):8848. DOI: https://doi.org/10.3390/su12218848

15. Rashid, A. A., Rashid, M. R. A., Yaman, M. N., & Mohamad, I. (2020). Teaching Medicine Online During the COVID-19 Pandemic: A Malaysian Perspective. Bangladesh Journal of Medical Science, 19, S 77–S 81. DOI: https://doi.org/10.3329/bjms.v19i0.48170

16. Chan AKM, Nickson CP, Rudolph JW, Lee A, Joynt GM. Social media for rapid knowledge dissemination: early experience from the COVID-19 pandemic. Anaesthesia 2020;75(12):1579–1582. DOI: https://doi.org/10.1111/anae.15057

17. Samat AHA, Rashid AA, Yunus NAM, Salim AMH, Musa H. A Malaysian medical non-governmental organisation’s (NGO) experience in the emergency response for COVID-19 using the ‘whole-of-society collaborative’ concept. Disaster Medicine and Public Health Preparedness 2021;1–13. DOI: https://doi.org/10.1017/dmp.2021.106

18. Islamic Medical Association Malaysia (IMAM). COVID-19 – Islamic Medical Association of Malaysia [Homepage on the Internet]. 2020 [cited 2020 Jun 9];Available from: http://www.imamalaysia.org/what-we-do/imaret/main-page-covid/

19. Billplz. Billplz | Fair payment platform [Homepage on the Internet]. 2021 [cited 2020 Jun 26];Available from: https://www.billplz.com/about
20. Facebook. Insights | Facebook Help Center [Homepage on the Internet]. 2020 [cited 2020 Jul 1];Available from: https://www.facebook.com/help/794890670645072

21. Spiliopoulou A-Y, Mahony S, Routsi V, Kamposiori C. Cultural institutions in the digital age: British Museum’s use of Facebook Insights. 2014;11(1):18.

22. Hofmann S, Beverungen D, Räckers M, Becker J. What makes local governments’ online communications successful? Insights from a multi-method analysis of Facebook. Government Information Quarterly 2013;30(4):387–396.

23. A. Rahim AI, Ibrahim MI, A. Salim FN, Ariffin MAI. Health Information Engagement Factors in Malaysia: A Content Analysis of Facebook Use by the Ministry of Health in 2016 and 2017. Int J Environ Res Public Health [homepage on the Internet] 2019 [cited 2021 Jan 14];16(4). DOI: https://doi.org/10.3390/ijerph16040591

24. Houk KM, Thornhill K. Using Facebook Page Insights Data to Determine Posting Best Practices in an Academic Health Sciences Library. Journal of Web Librarianship 2013;7(4):372–388. DOI: https://doi.org/10.1080/19322909.2013.837346

25. Schetgen L, Bogaert M, Van den Poel D. Predicting donation behavior: Acquisition modelling in the non-profit sector using Facebook data. Decision Support Systems 2021;141:113446.

26. Saunders TJ, Taylor AH, Atkinson QD. No evidence that a range of artificial monitoring cues influence online donations to charity in an MTurk sample. R Soc open sci 2016;3(10):150710. DOI: https://doi.org/10.1016/j.dss.2020.113446

27. Kim J, Oh SS, Jung T. Funding for Disaster Recovery: Increased Taxes or Charitable Donations to Nonprofits? International Journal of Public Administration 2010;33(3):151–159. DOI: https://doi.org/10.1080/01900690903304167

28. Paxton P, Velasco K, Ressler RW. Does Use of Emotion Increase Donations and Volunteers for Nonprofits? Am Sociol Rev 2020;85(6):1051–1083. DOI: https://doi.org/10.1177/0003122420960104

29. Kamarudin MK, Jun NWY, Rashid AA, Devaraj NK, Shamsuddin NH. Factors Associated with Motivation to Volunteer Among Lecturers in Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. Int J Hum Health Sci 2020;4(2):136.DOI: http://dx.doi.org/10.31344/ijhhs.v4i2.189

30. Jayatilaka T. Covid-19: You Can Help Healthcare Workers & Frontliners Via These 5 Fundraising Efforts [Homepage on the Internet]. Tatler Malaysia. 2020 [cited 2020 Jun 25];Available from: https://my.asiatatler.com/society/covid-19-help-health-care-workers-front-liners-via-these-organisations-and-funds