

COMMUNITY EMPOWERMENT AND BLOOD DONOR ENGAGEMENT: A COMPARATIVE ANALYSIS OF TWO CONSECUTIVE PRE-RAMADHAN CAMPAIGNS AT POLITEKNIK METrO Kuantan

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Abstract

The Pre-Ramadhan Blood Donation Campaign at Politeknik METrO Kuantan contributed positively to the availability of blood supplies at nearby hospitals through active community involvement. The programmes organised in 2024 and 2025 were carried out in collaboration with non-governmental organisations and healthcare partners. These initiatives aimed not only to increase blood reserves, but also to create greater awareness of blood donation and encourage a spirit of volunteerism among students and staff. While the 2024 campaign was mainly intended to support the blood supply of Hospital Tengku Ampuan Afzan, the 2025 programme extended its contribution to several local hospitals. Overall, a total of 80 students and staff members took part in the campaigns over the two-year period. This study was conducted to identify whether differences existed between the 2024 and 2025 programmes in terms of implementation, management, and effectiveness. A quantitative approach was adopted, and data were collected using a questionnaire distributed through Google Forms. The respondents consisted of active blood donors among the students and staff of Politeknik METrO Kuantan. The collected data were then analysed using SPSS version 27.0. The findings showed that there was a significant difference in the implementation aspect between the two years. The Sig. (2-tailed) value of 0.049 was lower than the 0.05 significance level, indicating a meaningful difference between the groups. The mean difference of -0.193 suggests that the implementation score in 2024 was lower compared to 2025. This result indicates that the programme in 2025 was implemented more effectively. Such improvement may be related to better planning, improved coordination among organisers, or increased participation from volunteers. On the other hand, no significant difference was found in the management aspect of the programme, as indicated by a Sig. (2-tailed) value of 0.917. This suggests that the management of the blood donation campaigns remained consistent across both years. Similarly, the effectiveness aspect also showed no significant difference, with a Sig. (2-tailed) value of 0.376. In general, the results indicate that although the implementation of the programme improved from 2024 to 2025, the overall management and effectiveness remained stable throughout the two-year period.

Keywords: implementation, management, effectiveness, community volunteer program

A. INTRODUCTION

Blood donation is a vital act of social responsibility that saves lives and improves community health. Around the world, regular and voluntary blood donation programs are essential parts of an effective healthcare system (World Health Organization, 2023). In Malaysia, many agencies organize blood donation drives to maintain a steady blood supply, especially during festive seasons when demand often increases. In higher education institutions, these initiatives promote awareness, build compassion, and encourage civic responsibility among students and staff.

Recently, it showed that community programs between educational institutions and non-government organizations (NGOs) play an essential role in promoting health awareness and participation (Abdullah et al., 2021; Lee & Wong, 2022). These collaborations strengthen social networks, empower volunteers, and support long-term healthy habits. However, many blood

donation programs do not meet their goals due to limited awareness campaigns, weak promotional strategies, and a lack of systematic evaluation (Kumar et al., 2020).

At Politeknik METrO Kuantan (PMKu), the Pre-Ramadhan Blood Donation Campaign occurs every year in partnership with several NGOs, including the Persatuan Bekas Pelajar MRSM Kuantan (KUATAGH), Malaysian Relief Agency, MC Confessions, Hospital Tengku Ampuan Afzan Kuantan (HTAAQ), and Sukarelawan Yes! PMKu. The 19th Ansara Annual Nationwide Pre-Ramadhan Blood Donation Campaign 2024 and its continuation in 2025 aim to highlight the importance of blood donation while improving health awareness within the polytechnic community. These programs also connect with the Yes!Politeknik Cluster on Health Development, focusing on community health empowerment through volunteer efforts.

Despite these efforts, there is still a lack of structured exposure to health-related programs among PMKu students and staff, especially regarding blood donation. Moreover, health development programs are limited within the institution, and evaluations after programs are rarely conducted to assess effectiveness or donor engagement. This makes it difficult to determine whether the campaigns effectively increase donor turnout, raise awareness, and maintain voluntary donation behaviors.

This research aims to compare the effectiveness and community engagement outcomes of two consecutive Pre-Ramadhan Blood Donation Campaigns at Politeknik METrO Kuantan. The researcher intends to evaluate the impact of community collaboration, measure participation and awareness levels, and identify key factors that motivate and engage donors. The findings should help improve future health-related community programs, promote a sustainable volunteer culture, and strengthen PMKu's role in community empowerment and health awareness.

B. RESEARCH METHOD

This study uses a quantitative research approach to assess the effectiveness and level of community engagement in two consecutive Pre-Ramadhan Blood Donation Campaigns organized at Politeknik METrO Kuantan (PMKu). The quantitative method was selected as it allows systematic measurement, comparison, and analysis of variables related to campaign implementation, management, and effectiveness.

A comparative descriptive research design was employed to compare the outcomes of the 2024 and 2025 campaigns. This design facilitated the identification of differences and similarities in program management, implementation strategies, and engagement outcomes across the two years. The research aimed to provide empirical evidence of program effectiveness through direct comparison of respondent feedback from both campaigns.

The population of this study consisted of staff and students of PMKu who were directly involved in or exposed to the blood donation campaigns. Based on institutional records, the total population was approximately 350 individuals. From this population, 80 respondents were selected using the simple random sampling technique, which ensures that every member of the population has an equal chance of being included in the sample. This approach minimizes selection bias and enhances the representativeness of the data.

For the 2024 campaign, the sample comprised 35 respondents, including 8 staff, 4 students, and 23 external participants. In the 2025 campaign, 45 respondents participated, consisting of 13 staff, 7 students, and 25 external participants.

Data were collected using a structured questionnaire designed by the researcher. The questionnaire was divided into three sections aligned with the study objectives:

1. Section A: Implementation – focused on the organization, coordination, and logistics of the campaign.

2. Section B: Management – assessed planning, communication, and collaboration with partner organizations.

3. Section C: Effectiveness – measured the outcomes related to donor participation, awareness, and satisfaction.

All items were measured using a five-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The instrument was reviewed by subject matter experts to ensure content validity, and the instrument achieved a Cronbach’s Alpha coefficient was 0.956, indicating high reliability for 20 items and 3 variables.

Questionnaires were distributed to respondents at the end of each campaign using both printed and online formats to facilitate participation. Respondents were briefed on the purpose of the study, and participation was voluntary. Confidentiality and anonymity of responses were ensured throughout the data collection process. Data were gathered within two weeks following each campaign to ensure accuracy and consistency of responses.

Collected data were analyzed using descriptive and comparative statistical methods. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize respondent demographics and item responses. Comparative analysis was conducted to identify variations in the implementation, management, and effectiveness between the 2024 and 2025 campaigns. Data were processed and analyzed using the Statistical Package for the Social Sciences (SPSS) software.

All research activities adhered to ethical research standards, emphasizing voluntary participation, informed consent, and the confidentiality of respondents’ information.

C. FINDINGS AND DISCUSSION

This study aimed to evaluate and compare the implementation, management, and effectiveness of two consecutive Pre-Ramadhan Blood Donation Campaigns conducted at Politeknik METrO Kuantan (PMKu) in 2024 and 2025. Data collected from 80 respondents were analyzed using independent sample *t*-tests to determine whether significant differences existed between the two campaign periods. The results are summarized in Table 1.

Table 1. Summary of Comparative Analysis Between 2024 and 2025 Campaigns

Variable	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Result
Implementation	-1.999	77.897	0.049	-0.193	Significant
Management	0.105	77.738	0.917	0.010	Not significant
Effectiveness	0.891	74.711	0.376	0.081	Not significant

Source: 18th & 19th Ansara Annual Nationwide Pre-Ramadhan Blood Donation Campaign Report 2024 & 2025

1. Implementation

The analysis revealed a significant difference in the implementation aspect between the 2024 and 2025 campaigns ($t = -1.999, p = 0.049 < 0.05$). The negative mean difference (-0.193) indicates that the 2025 campaign achieved a higher mean score compared to the 2024 campaign.

This result suggests that the implementation process improved in 2025, likely due to better coordination, enhanced communication among organizing teams, and stronger community involvement. The improvement may also be attributed to lessons learned from the first campaign, which allowed organizers to refine operational procedures and volunteer management strategies.

These findings align with previous studies on health promotion campaigns, which emphasize that iterative program implementation tends to yield improvements over time as organizers gain experience and adjust logistical processes (e.g., Rahman & Ahmad, 2023; Lim et al., 2022). Hence, the 2025 campaign's success reflects PMKu's growing institutional capacity in managing collaborative community health initiatives.

2. Management

The management aspect showed no significant difference between the two campaigns ($t = 0.105$, $p = 0.917 > 0.05$). This indicates that the level of management remained consistent and stable across both years.

The result suggests that PMKu maintained effective organizational practices, such as task delegation, partnership coordination, and time management, regardless of the campaign year. The consistency also reflects a well-established administrative framework, which ensures smooth cooperation with key partners, including the Ministry of Health and local NGOs.

This outcome is consistent with findings by Hasan et al. (2024), who reported that institutionalized event management systems in higher education settings can produce sustainable program quality across multiple iterations of community engagement projects. Therefore, the stable management performance in PMKu's campaigns may serve as a model of effective continuity in institutional volunteer programs.

3. Effectiveness

The effectiveness dimension also demonstrated no significant difference between the 2024 and 2025 campaigns ($t = 0.891$, $p = 0.376 > 0.05$). This implies that the campaigns produced comparable levels of outcomes in terms of blood donor participation, awareness, and satisfaction.

While the implementation improved, the relatively unchanged effectiveness might indicate that external factors such as timing, public awareness, or donor availability remained constant. It is also possible that donor saturation among the same target population limited growth in participation.

Similar patterns were noted in studies by Chong et al. (2023) and Ismail & Tan (2024), which found that despite improved management and logistics, the impact of community-based health campaigns often plateaus without targeted promotional strategies or expanded outreach. Thus, to enhance future campaign effectiveness, PMKu may consider extending engagement to external communities or integrating digital promotional tools to attract new donors.

The comparative findings highlight that:

1. Implementation improved significantly in 2025, indicating the positive impact of experience and refined coordination.
2. Management remained consistent, reflecting stable organizational performance across both years.
3. Effectiveness did not differ significantly, suggesting a need for broader outreach strategies to sustain donor engagement.

Overall, the results support the conclusion that continuous experience-sharing and stakeholder collaboration contribute to improved operational quality, though achieving higher effectiveness may require innovative engagement and communication approaches. For the implementation part, higher education institutions should systematically document lessons learned and refine coordination and communication mechanisms among organising teams. Clear task allocation and structured volunteer management may further support smoother programme execution in future campaigns. For the management part, findings suggest that institutionalised

management structures are essential for ensuring continuity and reliability in community-based volunteer programmes and for the effectiveness part, engaging external communities and utilising digital promotional platforms, to attract new donors. Incorporating targeted awareness efforts and data-informed engagement strategies may help enhance donor participation and sustain programme impact in future initiatives.

D. CONCLUSION

This study compared two consecutive Pre-Ramadhan Blood Donation Campaigns at PMKu to evaluate their implementation, management, and effectiveness. The results revealed a significant improvement in implementation for the 2025 campaign, demonstrating better organization and community involvement. However, the management and overall effectiveness showed no significant differences, indicating stable but plateaued performance levels. These findings suggest that while PMKu's campaigns have established a strong operational base, further improvements are necessary to enhance outreach and impact.

Based on the findings of this study, several recommendations are proposed to enhance the impact and sustainability of future blood donation campaigns at Politeknik METrO Kuantan. Firstly, outreach and awareness efforts should be strengthened by leveraging digital platforms, campus media, and community partnerships to expand participation and improve visibility among both students and staff. Secondly, collaboration with non-governmental organizations (NGOs) and healthcare institutions should be broadened to enhance donor engagement, optimize resource sharing, and create a more comprehensive support network for the program. Additionally, implementing systematic evaluation mechanisms—such as post-program surveys, donor feedback forms, and participation tracking—would allow for continuous improvement and data-driven decision-making. Encouraging greater student leadership and involvement in planning and management can also promote sustainability while nurturing responsibility and teamwork among participants. Finally, future research should consider adopting qualitative approaches to explore the motivational and behavioral aspects of donors and organizers, providing deeper insight into factors that influence long-term engagement and community empowerment.

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