



# The Effect of Social Media and Service Quality on Blood Donor Participation at UDD PMI Klaten Regency

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## ARTICLE INFO

## ABSTRACT

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This study aims to determine the effect of social media and service quality on blood donation participation in the Indonesian Red Cross Blood Donor Unit, Klaten Regency. The research method used in this research is a quantitative approach. The participants in this study were blood donors at the Indonesian Red Cross Blood Donor Unit, Klaten Regency. The sample in this study consisted 95 respondents who were selected using a random sampling technique. Data collection techniques with documentation and questionnaires. The product moment correlation test and the multiple linier regression test were used to analyze the data. Based on the Multiple Linear Regression Test, the equation model  $Y = 1.68 + 0.13 X_1 + 0.21 X_2$  is obtained. Meanwhile, based on the correlation test, the following results were obtained: (1) there is a significant effect of social media on blood donor participation ( $r_{count} 0.522 > 0.199 r_{table}; p > 0.1$ ); (2) there is a significant effect of service quality on blood donor participation ( $r_{count} 0.603 > 0.199 r_{table}; p > 0.1$ ); (3) there is a significant effect of social media and service quality on blood donor participation ( $R_{xy} 0.626 > 0.199 R_{table}; Sig = 0.000 < 0.1$ ). This study concludes that there is a positive and significant effect of social media (X1) and service quality (X2) on blood donor participation (Y) in the Indonesian Red Cross Blood Donor Unit, Klaten Regency.

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## 1. Introduction

The Indonesian Red Cross (PMI) is a humanitarian organization that has a legal entity status and is in the form of a national association to carry out Red Cross activities following the 1949 Geneva convention adopted in Law number 1 of 2018 concerning the Red Cross (Indonesia, 2018), PMI has the aim of preventing, alleviating suffering and protecting victims of prisoners of war and disasters, regardless of religion, nation, ethnicity, skin color, gender, class and political views, both in times of peace and war. To achieve this goal, PMI has developed various activities including disaster management, first aid, blood transfusion, and also social services through PMI's AD/ART article 8 of 2019-2024 (Indonesia, 2019).

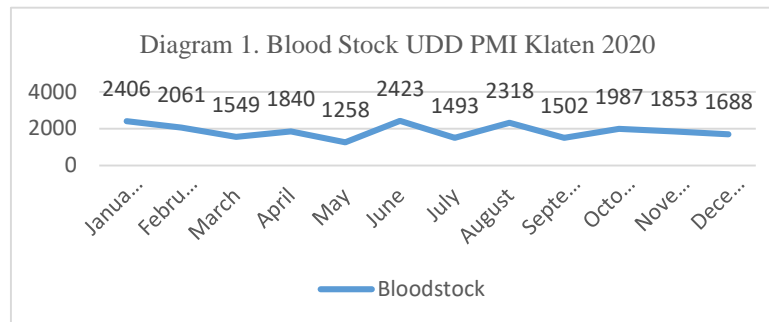
PMI's task of providing blood services is carried out by the Blood Donor Unit (UDD). UDD is a health service facility that organizes blood donation, blood supply, and blood distribution according to Government Regulation of the Republic of Indonesia number 7 of 2010 chapter 1 article 1 number 8 (Indonesia, 2011). Each region is required to have at least one Blood Donor Unit facility, this is following Government Regulation number 47 of 2016 concerning Health Facilities (Indonesia, 2016). One area that already has a Blood Donor Unit is Klaten Regency which is managed by PMI Klaten Regency. The blood supply should be sufficient and transparent. But at certain times the supply of blood is less than the demand.

The working area of the UDD PMI in Klaten Regency is the Klaten Regency which has an area of 655.6 km<sup>2</sup> with a population of 1260506 people (Klaten, 2021). With a large area and population, UDD PMI Klaten Regency must be able to take full advantage of this so that the community can actively participate in donating



blood. PMI Klaten Regency has a normal limit for bloodstock that must be met every month, which is 2200 bags of blood.

However, during the Covid-19 pandemic several times PMI Klaten Regency experienced a shortage of bloodstock, where the condition of the bloodstock every month was below 2200 bags, if it happened for a long time, it could have a fatal impact on patients who needed blood and could also threaten UDD. If PMI Klaten Regency itself, if PMI UDD cannot meet the availability of bloodstock in the area, the Government has the right to close PMI UDD and establish Regency/City Hospital UDD as described in Government Regulation number 18 of 1980 concerning Blood Transfusion (Indonesia, 1980). The following diagram describes the bloodstock data for 2020.



Source: UDD PMI Klaten Regency

From the diagram, it is explained that there are blood stocks that are below the normal limit for 9 months out of a year in 2020. Therefore, it can be concluded that the bloodstock owned by PMI Klaten Regency in 2020 is mostly still below the safe limit. . The core problem is that donor participation fluctuates every month, as high as 2423 (June) and as low as 1258 (May). This research offers two solutions to increase blood donor participation, namely through service quality and social media.

In essence, each Blood Donor Unit is responsible for meeting the availability of blood in its working area, including UDD PMI Klaten Regency. The availability of this blood is very dependent on public awareness to participating in donating blood voluntarily and regularly. According to research that has been conducted previously (Anggreni & Yanti, 2019), awareness of donating blood is influenced by the quality of service and social media. To achieve blood availability in the area, UDD needs to carry out donor recruitment activities that include socialization efforts and voluntary blood donor campaigns, donor mobilization, and donor preservation.

The purpose of this article is to (1) find out whether there is an effect of social media on blood donation participation in the Indonesian Red Cross Blood Donor Unit, Klaten Regency, (2) find out whether there is an effect of service quality on blood donor participation in the Indonesian Red Cross Blood Donor Unit, Klaten Regency (3) find out whether there is an influence of social media and service quality on blood donation participation in the Indonesian Red Cross Blood Donor Unit, Klaten Regency.

## 2. Methods

The research method used in this research is a quantitative approach. The participants in this study were blood donors at the Indonesian Red Cross Blood Donor Unit, Klaten Regency. The sample in this study consisted of 95 respondents who were selected using a random sampling technique. Sampling was done randomly based on the Slovin formula. The variables used in this study are the independent variables, namely social media and service quality, while the dependent variable is the participation of blood donors. Data collection techniques with documentation and questionnaires. Data analysis used descriptive analysis of each variable. The prerequisite test includes normality test with Kolmogorov-Smirnov test and hypothesis test using product-moment correlation test and multiple linear regression test. The data was processed and analyzed using SPSS 22.0 program.

## 3. Results and Analysis

### 3.1 Research result

**a. Descriptive analysis**

The findings show that the values of the three variables – social media, service quality, and community participation in blood donation activities are high. In more detail, the findings are presented in Table 1 below.

**Table 1**  
Descriptive Analysis

Variabel	N	Mean	SD	Minimum	Maksimum
Social Media	95	26,21	2,76	21	30
Service Quality	95	35,6	3,63	27	40
Blood Donor Participation	95	12,94	1,70	8	15

Source: Results of Primary Data Analysis with SPSS January 2022

Table 1 above shows that the statistical data analysis of social media variables has an average of 26.21, the service quality variable has an average of 35.6, and the blood donor participation variable has an average of 12.94. The standard deviation of the social media variable is 2.76, the service quality variable is 3.63, and the blood donor participation variable is 12.94. The minimum value of the social media variable is 21, the service quality variable is 27, and the blood donor participation variable is 8. While the maximum value for the social media variable is 30, the service quality variable is 40, the blood donor participation variable is 15.

**b. Analysis Prerequisite Test**

1) Normality test

Before moving on to further statistical tests, the results of the data normality test from 95 respondents are presented in Table 2 below:

**Table 2**  
Normality Test Results

Variabel	Sig	Description
Residual	0,114	Normal

Source: Results of Primary Data Analysis with SPSS January 2022

Table 2 shows the results of the normality test using the Kolmogorov-Smirnov formula. The results of the normality test obtained a significance value of 0.114. It can be concluded that the data is normally distributed. With these findings, the correlation test and the cause-effect model test can be continued in this study.

2) Multicollinearity test

To avoid the occurrence of multicollinearity between variables, the following multicollinearity test (see Table 3) can ensure that the relationship between variables meets the assumptions of the positivistic view of science in this study.

**Table 3**  
Multicollinearity Test Result

Variabel	Skor VIF
Social Media (X1)	1,751
Service Quality (X2)	1,751

Source: Results of Primary Data Analysis with SPSS January 2022

Based on table 3, it can be seen that the VIF value of the social media variable is  $1.751 < 10$  and the VIF value of the service quality variable is  $1.751 < 10$ , so it can be concluded that there is no multicollinearity in the data.

3) Heteroscedasticity test

Regression analysis requires a Heteroscedasticity test between independent variables. Heteroscedasticity was avoided in this study. Table 4 presents the results of the primary data analysis with a good significance figure.

**Table 4**  
Heteroscedasticity Test Result

Variabel	Sig.
Social Media (X1)	0,212
Service Quality (X2)	0,447

Source: Results of Primary Data Analysis with SPSS January 2022

Based on table 4, the significance value of the social media variable is  $0.212 > 0.1$  and the significance value for the service quality variable is  $0.447 > 0.1$ , so it can be concluded that there is no symptom of



heteroscedasticity in the regression model. A regression model that does not experience symptoms of heteroscedasticity is good.

**c. Correlation Hypothesis Test**

1) Correlation between Social Media (X1) on Blood Donor Participation (Y)

**Table 5**  
Product Moment Correlation Test Results X1 – Y

Variabel	r	Sig.	t
Social Media	0,522	0,000	2,066
Blood Donor Participation	0,522	0,000	

Source: Results of Primary Data Analysis with SPSS January 2022

Table 4 finds that the use of social media is related to the level of blood donor participation which is indicated by a significance value of  $0.000 < 0.1$ . The correlation value ( $r_{count}$ ) between social media and blood donor participation is  $0.522 > 0.199$  ( $r_{table}$ ). This is evidence from the data that the correlation value has a positive value, meaning that the relationship between the two variables is unidirectional. After the analysis, it was found that  $H_0$  was rejected and  $H_1$  was accepted, because  $t_{count} 2.06 > t_{table} 1.66$ , which means that social media is significantly correlated with blood donor participation in UDD PMI Klaten Regency.

2) Correlation between Service Quality (X2) and Blood Donor Participation (Y)

**Table 6**  
Correlation Test Results r Product Moment X2 – Y

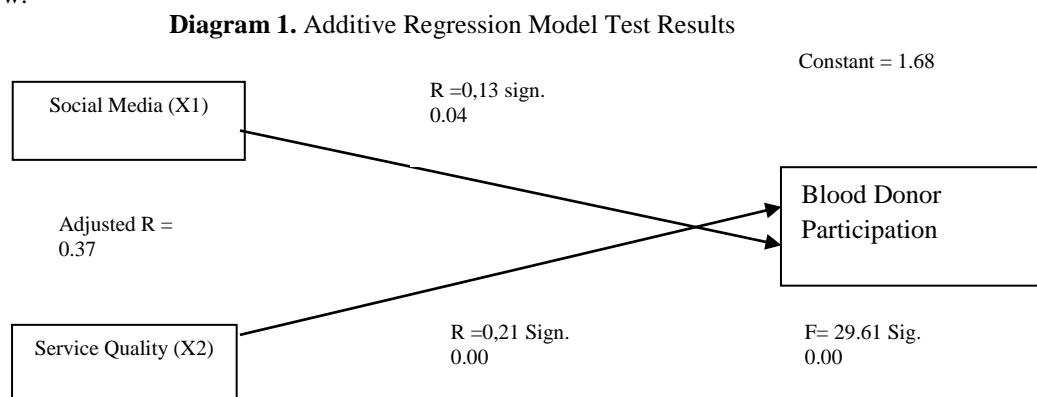
Variabel	r	Sig.	T
Service Quality	0,603	0,000	4,249
Blood Donor Participation	0,603	0,000	

Source: Results of Primary Data Analysis with SPSS January 2022

Based on table 5, it was found that the effect of service quality variables on blood donor participation had a significance value of  $0.000 < 0.1$ . The correlation value ( $r_{count}$ ) between service quality and blood donor participation is  $0.603 > 0.199$  ( $r_{table}$ ). The correlation value has a positive value which means that the relationship between the two variables is unidirectional. After the analysis, it was found that  $H_0$  was rejected and  $H_1$  was accepted, because  $t_{count} 4.24 > t_{table} 1.66$ , which means that service quality is significantly correlated with blood donor participation in UDD PMI.

3) Effect of Social Media (X1) and Service Quality (X2) on Blood Donor Participation (Y)

Data analysis using Additive Regression Model with the following formula:  $Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \epsilon_i$ . While the results of the primary data analysis are explained in the diagram below:



Source: Results of Primary Data Analysis with SPSS January 2022

Based on the results of the analysis in diagram 2, interesting and useful data and findings are obtained for the Klaten Regency government, especially the UDD Red Cross Office. The first finding, when the significance value is  $0.000 < 0.1$  compared to the calculated F value of 29.61 at a significance level of 10%, then  $H_0$  is rejected because  $F$  arithmetic  $29.61 > F$  table 2.36. There is no doubt that the role, function, and strategy of social media complemented by service quality have a significant effect on blood donor participation in UDD PMI Klaten Regency.



The second finding is that the people of Klaten care and are committed to humanity by joining as blood donors. The findings show that the regression coefficient is obtained when  $Y = 1.68 + 0.13 X_1 + 0.21 X_2$ . That is, a constant of 1.68 indicates that blood donor participation is 1.68 before being influenced by social media variables and service quality.

Furthermore, the third finding, with a regression coefficient of  $b_1 = 0.13$  gives real evidence that social media variables have a positive and linear influence on blood donor participation. The data proves that if social media is increased by one factor, it will increase blood donor participation by approximately 13% with the assumption that the service quality variable is fixed.

The fourth finding is more interesting. The regression coefficient  $b_2 = 0.21$  indicates that the service quality variable has a positive, and greater, effect on blood donor participation. If each service is increased by one multiple, it will increase blood donor participation by approximately 21%, assuming that social media variables are fixed.

Overall, the last finding, the data shows the Adjusted R Square value from the regression result of 0.378. This is an indication that social media variables and service quality affect blood donor participation by 37.8%, while the rest is explained by other variables that have not been included in the study variables at the time of this study.

### 3.2 Discussion

Social media increases the number of blood donors in Klaten. Based on the results of research that has been conducted on blood donors at the Indonesian Red Cross Blood Donor Unit, Klaten Regency, it shows that there is a significant influence of social media ( $X_1$ ) on blood donor participation ( $Y$ ).

Social media, especially the internet, is useful in educating the public to join as blood donors. Social media, according to Gohar in (Rosarita, 2018) is an internet network-based platform that can be operated easily for the purpose of creating content (information, opinions and interests) and sharing it with the general public. This opinion is in line with the opinion of (Anang, 2016) which explains that social media, especially online media can be operated easily by its users to share and create public educational information

Health promotion through social media expands potential donors. The results of this study are in line with research by (Leonita & Jalinus, 2018) which states that social media contributes positively to health promotion. This social media can be used by the Indonesian Red Cross to carry out health promotions to attract public participation in donating blood. The indicator was stated by Chris Heuer in (Nafisah, 2018). Blood donor promotions must be skilled at assembling writing by paying attention to grammar, form, and message content into information that can be understood, informative, and of course attracts the attention of others, then communication skills convey information to others so that they understand and provide feedback, collaboration is a collaboration between with other parties such as uniting perceptions, providing responses, and connections, namely establishing sustainable relationships so that they have a sense of comfort and closeness. If these indicators are implemented properly, social media can affect blood donor participation.

The quality of blood donation services by PMI has been able to meet the expectations of the people who use blood donors. Based on the results of the research that has been done, it shows that the quality of service ( $X_2$ ) has a significant effect on blood donor participation ( $Y$ ) at UDD PMI Klaten Regency. Service quality according to Lewis and Booms in (Deasy & Retno, 2018) is considered a measure of how well the level of service provided matches customer expectations. UDD is a service unit, while donors and recipients are customers.

The community continues to realize that blood donations are from, by, and for the community. (Taufiqurokhman & Satispi, 2018) confirm that service quality builds a positive customer perception of the service received and expected. The results of this study are also in line with Kotler's theory in (Haroen, 2020) that companies that provide quality services and consumers get satisfaction will create consumer loyalty and vice versa. In addition, (Anggreni & Yanti, 2019) also proves that good service quality results in high satisfaction and repeated use of services more often.

PMI needs to maintain the safety and comfort of blood donors. To increase blood donor participation, the Indonesian Red Cross must pay attention to blood transfusion service standards that are safe, useful, easily accessible, and follow community needs. Regulation of the Minister of Health of the Republic of Indonesia number 91 of 2015 concerning Standards for Blood Transfusion Services must be safe and comfortable (Ministry of Health Indonesia, 2015)

Based on the results of the research that has been conducted, it shows that there is a positive and significant influence between social media ( $X_1$ ) and service quality ( $X_2$ ) on blood donor participation ( $Y$ ) in



the Indonesian Red Cross Blood Donor Unit, Klaten Regency. In this study the service quality variable (value 0.21 is more dominant than the social media variable (value 0.13). This is because service quality is something that can directly benefit blood donors. The Adjusted R square value from the regression results is 0.378 this means that social media variables and service quality affect blood donor participation by 37.8%, not only in line with the results of (Anggreni & Yanti, 2019), both service quality and social media can have a positive influence on people's interest in donating blood.

#### 4. Conclusion

Based on the data obtained from the results of the analysis that has been carried out, the following conclusions can be drawn:

- a. There is a positive and significant influence of social media on blood donor participation. This is proven based on the results of the product moment correlation test which indicates the relationship between the two variables is significant with a significance value of  $0.000 < 0.1$ . The correlation value ( $r_{\text{count}}$ ) between social media and blood donor participation is  $0.522 > r_{\text{table}} 0.199$ .
- b. There is a positive and significant influence of service quality on blood donor participation. This is proven based on the results of the product moment correlation test which indicates the relationship between the two variables is significant with a significance value of  $0.000 < 0.1$ . The correlation value ( $r_{\text{count}}$ ) between service quality and blood donor participation is  $0.603 > r_{\text{table}} 0.199$ .
- c. There is a positive and significant influence of social media and service quality on blood donor participation. This is proven by the multiple linear regression test which indicates a significance of  $0.000 < 0.1$  meaning that there is a significant relationship between social media variables and service quality together with the blood donor participation variable. For the multiple regression coefficient value of  $0.626 > 0.199$  ( $R_{xy} > R_{\text{table}}$ ) with the regression line equation model, namely  $Y = 1.687 + 0.137X_1 + 0.215X_2$ .

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