

# Exploring Strategic Factors for Promoting Blood Donation Campaign

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## Abstract

Approximately 2.2 percent of the Malaysian population donates blood each year, compared to the standard expectation of 5 percent. It is a sign that this country will experience insufficient blood supply in the future. This worrying statistic has led to the exploration of blood donation decision-making conducted worldwide for the purpose to understand the factors that will help to encourage the publics to donate blood. Understanding the intention-based Theory of Planned Behavior (TPB) helps the researchers to develop targeted campaigns based on specified factors from the pool survey. These TPB factors among Malaysian adults have not yet been fully investigated. Thus, the survey was administered to respondents concerning potential motivating factors based on the suggested TPB elements in their decision to donate blood. The study was conducted on Malaysian adults working in the public and private sectors. This study was to identify the correlation and regression value to identify the relationship between the factors and to infer causal relationships between the factors. The result shows that there is a significant relationship between the subjective norms with the blood donation intention. The potential discouraging factors need to be addressed to ensure future decision whether or not to donate blood might be inflected. However, this study has pointed out for further investigation on factors affecting the donor intention and decision to donate the blood among Malaysian adults.

**Keywords:** Theory of Planned Behavior; Blood Donation, Malaysian Adults

## 1. Introduction

*Blood is a vital health care resource used in a broad range of clinical services (WHO, 2017).* The phenomenon of blood shortage is upraising the apprehension in meeting the blood demand (William et al., 2018; Chen, 2017). The mission behind the donation campaign is to improve the blood supply for life and encountering the quality of human life. Ministry of Health recorded that blood donation in Malaysia was 2.2 percent for the entire population in 2014 compared to 3.5 – 5.0 percent in developed countries (Ling et al., 2018). Even though blood donation activities are organized everywhere, yet, minimal participation is recorded. This issue has created the need to understand the population and associated factors that can increase their motivation and willingness to be a blood donor, instead of waiting for volunteers. Giving blood provides an essential lifeline to those in need, but a growing body of

research demonstrates that it could have health benefits for the donor too (Chen, 2017; Hamid et al., 2013).

In order to maintain the desire to donate blood, it is important to understand the donors' intention in doing so. Thus, TPB which is suggested by Ajzen (1991) will be used to measure the intention of performing the action by someone who is trying to do something spectacular. The study concludes that the stronger the intention to perform an action, the greater the probability that the behaviour is carried out. This theory has identified three main factors that contributed to the formation of intentional attitudes and responses to behavioural control and subjective norm. This theory concludes that the more positive the attitude toward the behaviour, the stronger the response to the desire and pressure control in the subjective norm, the stronger the intention that there is in a person to perform an action. The objectives of this study are to determine the relationship between attitude, subjective norms and perceived behavioural control and blood donation intention and to determine the factor that has the most influence on blood donation intention.

## 2. Literature Review

Blood donation is operationally defined as participants who offer themselves based on voluntary non-remunerated for blood donations (WHO, 2016). In discussing this further, the Theory of Planned Behavior (TPB) proposed the respective factors to be measured.

*The first factor is blood donation intention.* The TPB defined the intention as the subjective probability that an individual will perform some behaviour (Ajzen & Fishbein 1983). Ajzen (1991) describe that the theory postulates that a person's intention to perform (or not to perform) a behaviour is the immediate determinant of that action. Thus, TPB is based on the premise that intention is the most proximal determinant of behaviour. In turn, intention is to be influenced by attitude (either positively or negatively evaluations of performing the behavior), subjective norm (perceptions of social pressure for performance of the behavior) and perceived behavioural control (perceptions of control over performing the behaviour).

*Second factor discussed is attitude.* An individual's attitude toward performing the behaviour is defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behaviour in question" (Ajzen, 1991). The theory further asserts that an individual's attitude toward performing a behaviour is a function of the perceived consequences of performing that behaviour, as well as the individual's evaluation of those consequences (Ajzen & Fishbein 1983). According to Lehmann and Gorsuch (2017) the attitudes of donor were reported to have positively correlated with intention to donate blood. Unfortunately, the study by Warfel (2013) in measuring the significant interaction between the binary variable decisiveness and explicit attitude in predicted intention found that the stronger internal consistency (by image and word implicit) compared to external factors (the social-identity implicit) significantly influenced the attitude in blood donation.

*The third factor is subjective norm.* The subjective norm is defined as "the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 2003). Subjective norms are also a function of two components: normative belief and motivation to

comply. Hanson & France (2009) explained that subjective norm relates to social supports that perceives significant people to voluntarily endorse blood donation. According to Chen (2017) suggested that blood donation is a collective action and is greatly influenced by the perceived normative support. The occurrence donate blood seem likely to have positive influence with community supports on individual toward blood donation (Bani & Guissani 2010; Hamid et al. 2013; Ling et al. 2018). Figure 1 is illustrated the conceptual framework for this study.

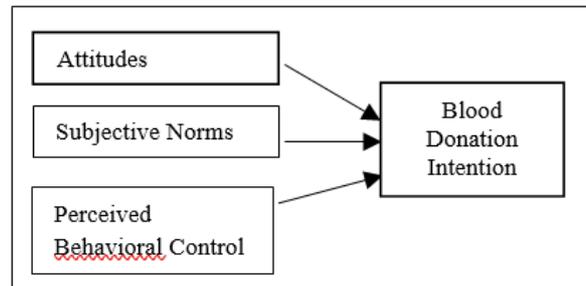


Fig 1. The Conceptual Framework

The fourth factor in this study is *Perceived Behavioural Control*. Perceived behavioural control pertaining to an individual perception of how easy or difficult it is to perform the behaviour. In the context of blood donation, the perception towards easiness of blood donation will determine the behaviour of the donor. Lu (2016) stated that in addition to improve future blood donation is taking an advantage from the effect of internal perceived behavioural control. This was supported by Warfel (2013) mentioning that internal consistency is a stronger factor in donating blood compared to social-identity implicit.

### 3. Methodology

The survey consists of structured questionnaires with five-point Likert’s scale ranging from 1 = ‘strongly disagree’ to 5 = ‘strongly agree’. Items were adapted based on the previous study (Chen, 2017; William et al., 2018). Section A consists of demographic information. While, Section B consists of two (2) items measured an individual’s attitude to blood donation. Section C was dedicated to measure subjective norm – two (2) items measured the social influence in donating blood. While, Section D was regarding on perceived behavior control (2 items) that is to measure the respondent’s perceived behavioral factors towards blood donation and in Section E was assessed participants’ future intention to donate blood. The items represent the donation blood based TPB factors as per Table 1.

Table 1: Items of the survey

Factors	Items
Attitude	1. Blood donation would be relaxing 2. Blood donation would be pleasant
Subjective Norms	1. Most people who are important to me think I should donate blood 2. Most people who are important to me would approve of my blood donation
Perceived Behavioral Control	1. I believe I am able to donate blood 2. It would be easy for me to donate blood
Blood Donation Intention	1. I intend to donate blood in near future 2. If I have a chance, I will donate blood

The survey was administered after the pilot study was conducted for instrument validation and reliability test. The items of the survey were validated by three experts in the field of marketing and management as suited to this context of donation campaign program. The survey was measured using the technique percentage of agreement with indication by 60 percent and above is the level of acceptance of each item (Hamdan et al., 2019; Abdullah & Leow, 2017). All the factors were validated through two round validations process and the result as per Table 2.

Table 2: The validation on survey

	Expert			Over-all	Status
	1	2	3		
1. The accuracy using the constructs	Yes	Yes	Yes	100%	Accept
2. Instrument format	Yes	Yes	Yes	100%	Accept
3. The clarity on meaning of item	Yes	Yes	Yes	100%	Accept
4. The suitability of the language	Yes	Yes	Revised	67%	Accept
5. Suitability of font size	Yes	Yes	Yes	100%	Accept
6. Clarity instructions given	Revised	Yes	Yes	67%	Accept
7. The use of font spacing	Yes	Yes	Yes	100%	Accept
8. Instructions for rating scale	Yes	Yes	Yes	100%	Accept
9. Clarity instrument objectives	Yes	Yes	Yes	100%	Accept
10. Spelling	Yes	Yes	Yes	100%	Accept

The total of 150 questionnaires were distributed randomly to public concurrently with blood donation campaign and 101 respondents voluntarily participated in this study. Before that a piloting on instrument of 32 respondents led some changing to improve the Cronbach's Alpha was conducted. The reliability level were above the recommended value i.e. higher than 0.70 (Sekaran, 2006). The reliability analysis indicated that the factors outcome were consistent among the items. Table 2 shows that Cronbach's Alpha value for all factors.

Table 2: Reliability Value

Factors	Alpha
Blood Donation Intention	.803
Attitude	.804
Subjective Norms	.702
Perceived Behavioral Control	.716
Overall	.806

## 4. Finding

### 4.1 Descriptive Data

The demographic profiles included gender, age, ethnic, marital status, education level and donation frequency. Information was summarized as per Table 3.

Table 3: Frequency Analysis of Demographic Data

<b>Gender</b>	<b>Freq.</b>	<b>Percentage</b>
Male	45	44.6%
Female	56	55.4%
<b>Age</b>		
18 - 29	18	17.8%
30 - 39	70	69.3%
40 – 49	10	9.9%
50 Above	3	3.0%
<b>Marital Status</b>		
Single	36	35.6%
Married	63	63.4%
Other	1	1.0%
<b>Education Level</b>		
Secondary	22	21.8%
Diploma	30	29.7%
Bachelor Degree	44	43.6%
Others	5	5.0%
<b>Donation Frequent</b>		
1 <sup>st</sup> time	42	41.6%
2 - 5 times	46	45.5%
6 -10 times	8	7.9%
> 10 times	5	5.0%
<b>Ethnic</b>		
Malay	99	98%
Chinese	1	1%
Indian	1	1%

Based on the Table 3 shows, the majority of the respondents is female with 55.4% (n=56) with the highest level of age is in range of 30 – 39 years old with 69.3%. For marital status it shown that the majority of the respondents were married with 62.4% (n = 63). Majority of respondents were having Bachelor Degree (43.6%, n = 55) and for level of donation frequency it was found that majority of respondents have experiences of donating blood in the range of below than 5 times in their life time.

### 4.2 Correlation Analysis

RQ1 - What is the relationship between an attitude, subjective norms and perceived behavioral control with blood donation intention? The analysis of Pearson Correlation Coefficient was used to answer RQ1. This correlation analysis indicates the direction, strength and significance of the bivariate relationships between the factors (Sekaran & Bougie, 2010). Table 4 indicated the correlation coefficient for the factors of Blood Donation Intention (BDI), Attitude (A), Subjective Norm (SN) and Perceived Behavior Control (PBC).

Table 4: The relationship of factors

	BDI	A	SN	PBC
BDI	1			
A	.302**	1		
SN	.592**	.498**	1	
PBC	.497**	.600**	.687**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results in Table 4 show that the relationship between Subjective Norm ( $r = .592$ ) and Perceived Behavior Control ( $r = .497$ ) was resulted moderate correlation with Blood Donation Intention. However, there was a weak correlation ( $r = .302$ ) between Attitude and Blood Donation Intention.

### 4.3 Regression Analysis

RQ2 : What is the factor that has the most influence on blood donation intention?. To answer RQ2, The results are summarized in the Table 5.

Table 5: The factor that has the most influence on blood donation intention

Factors	$\beta$ (beta)	t	Sig.
Attitude	-.060	-.587	.558
Subjective Norm	.485	4.314	.000
Perceived Behavior Control	.200	1.641	.104
R <sup>2</sup>	.351		
Adjusted R <sup>2</sup>	.344		
F Change	53.43		
Sig F Value	.000		

Regression analysis indicated the influence of blood donation intention with attitude, subjective norm and perceived behavior control with t-value indicate that subjective norm was positively significant. As illustrate, the F value is  $F=53.437$ ,  $p < 0.005$ . While, the value of R square is 0.351 that indicates that the subjective norm (SN) can explain 35.1% of the variations in the dependent variable (Blood Donation Intention). However, there are 65% of the variance remain unexplained in this study. As denoted in Table 4, the subjective norm (SN) has significant influence on Blood Donation Intention with ( $\beta=0.485$ ,  $p < 0.005$ ). It explained 48.5% of the variance in blood donation intention. Therefore, the subjective norm of respondent is a positive predictor to strategize the blood campaign successfulness.

### 5. Discussion & Conclusion

As denoted that the sample size in this study was relatively small, the present finding supported the view that the Theory Planned Behaviour is a useful tool to measure blood donation behaviour. The result of this study shows that there is a significant relationship between subjective norm with blood donation intention. This study supported the finding by Lu (2010) that predicted blood donation intention have a

positive relationship with the respective factors. Furthermore, this study extended on the outcomes of previous study (Hanson & France 2009; Bani & Guissani 2010; Hamid et al. 2013; Ling et al. 2018) and supports Chen (2017) findings by providing evidence between subjective norm with the intention that individual to voluntarily donate blood through the social influence of community, friends and family. The major contribution of this research is that it explores the role of first timer blood donor (the majority in respondents) intention and behaviour. The result shows that the factors of intention has a non-significant association with attitude and perceived behavioural control, but it has significant association with subjective norm factor.

Jaafar et al. (2017) stated that the experience of the donor was influenced by good values from peers who convinced the donor, thus reducing anxiety and giving positive supports to them. Thus, blood donation campaign should encourage coping strategies especially for overcoming blood donor negative experience and anxiety. Thus, the advertisement based on peer or family should be designed and peer or family member supports during blood donation process must be encouraged. Overall, the findings support the modified Theory of Planned Behaviour, which provides a tool for measuring the level of human behaviour towards their intention to donate blood.

There were two limitations in this blood donation research. First, the data were not equally distributed to all Malaysian ethnic. As the result is only cover the Malay ethnic as majority of respondents in this study. Finding may differ by ethnic. Secondly in this research, the rate of population is considered small. Thus, the finding cannot be generalized to the population. Further study is necessitated on a bigger sample. This would be valuable to improve accurateness of result as it might reduce the sampling error. This can be applied by gathering the data using stratified sample over the Malaysian population. This information is pertinent to improve blood supply for national usage through the understanding on the factors affecting the intention to donate blood.

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