التسويق الاجتماعي في الأردن: دراسة نية الناس نحو التبرع في الدم

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ملخص

هدفت هذه الدراسة إلى تحديد الأثر المحتمل لبعض العوامل على نية الأفراد للتبرع بالدم في الأردن. استخدم الباحثان استبانة لغرض جمع البيانات من (600) شخص من الذين زاروا مواقع طبية متعددة مثل المستشفيات الحكومية أو العسكرية أو الخاصة أو مركز الرعاية الصحية الأخرى. وقد تم جمع البيانات من 584 مفردة بنسبة (97.3 %) من إجمالي العينة. وتم استخدام برمجية Smart- PLS لتحليل البيانات. وقد أظهرت النتائج أن الإيثار النقي وغير النقي، والحوافز الطبية، وحوافز التقدير، وحملات التسويق الاجتماعي، و الميسرات أثرت بشكل كبير على نية الأردنيين للتبرع بالدم. وتوصي الدراسة بقيام المهتمين بموضوع التبرع بالدم أن يركزوا على العوامل التي تحفز الناس للتبرع بالدم وأن يقوموا بإجراء العديد من حملات التسويق الاجتماعي لتشجيع الناس للتبرع بالدم كسلوك اجتماعي إيجابي في المجتمع.

الكلمات المفتاحية: الأردن، التسويق الاجتماعي، التبرع بالدم، والنية.

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Social Marketing in Jordan: A Study of People's Intention towards Blood Donation

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Abstract

This study aimed to identify the potential influence of some factors on the individuals' intention to donate blood in Jordan. The researchers used a questionnaire to collect data from 600 respondents, who visited varying medical centers, such as governmental hospitals, military hospitals, private hospitals, or other health care centers. Data were collected from 584 respondents (97.3% of the whole sample). Smart-PLS was performed to analyze the data. The results showed that both pure and impure altruism, medical incentives, recognition incentives, social marketing campaigns, and facilitators significantly influenced the intention of Jordanians to donate blood. The study recommends that those interested in the topic of blood donation should focus on the factors that motivate people to donate blood and conduct many social marketing campaigns to encourage people to donate blood as a positive social behavior in society.

Keywords: Jordan, Social Marketing, Blood Donation, Intention .

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Introduction:

Globally, blood has been recognized as an essential life-saving component and is required by healthcare systems worldwide (Al Zadjali et al., 2023). Due to the absence of an alternative to blood and its components, it is crucial to ensure an adequate blood supply (Sharma et al., 2023). The World Health Organization (WHO) estimates that 1-3% of the world's population needs to donate blood to meet the demand for blood products (Robaina-Calderín et al., 2023). Despite the fact that nearly 120 million units of blood are donated annually worldwide, this amount is insufficient to meet the current and projected demand (Al Zadjali et al., 2023; Sharma et al., 2023). Therefore, it is essential to have a steady supply of donors to meet the demand for blood products, particularly in times of emergency. To increase the number of donors, it is important to understand the factors that motivate people to donate blood (Berg et al., 2023). Thus, literature refers to the need for further research to gain more knowledge about the factors that drive individuals to donate blood globally (Robaina-Calderín et al., 2023).

In Jordan, the yearly blood donation rate has only increased by 2%, which remains low. There is a need to understand the factors that may encourage people in Jordan to donate blood. While some literature suggests a lack of social studies on blood donation behavior, there is a growing call for social marketing studies to better understand the motivations of Jordanians for blood donation (Alkhataybeh & Alkhataybeh, 2022; Swedan and Al-Saleh, 2023). Furthermore, recent research has focused on the factors that ensure donors to repeat the process, indicating a growing interest in this topic (Robaina-Calderín et al., 2023). An extensive search was conducted to find research articles on blood donation behavior in the Jordanian context, utilizing various databases such as Google scholar, the library of Mutah University, and some other governmental websites. However, few studies were found. For instance, Hani (2012) focused on the medical effects of blood donation on people's health but did not investigate the behavioral intention towards blood donation in Jordan. Similarly, Abderrahman and Saleh (2014) emphasized people's knowledge and attitudes towards blood donation in Jordan but did not examine the main determinants of intention towards blood donation. Another study by Alkhataybeh and Alkhataybeh (2022) studied individuals' knowledge and attitudes towards blood donation in Jordan but did not explore the factors that may influence their intention towards blood donation. As a result, the present study is unique and particularly focused on the behavioral intention of blood donation in Jordan. Furthermore, previous studies were conducted in different areas of Jordan except for the southern region; hence, the current

study was undertaken to investigate the behavioral intention of those willing to donate blood in Jordan's southern governorates to better understand this issue.

To fill this gap in the literature, the present study aims to examine the influence of specific factors (pure altruism, impure altruism, medical incentives, recognition incentives, facilitators, and social marketing campaigns) on individuals' intention toward blood donation in Jordan. The main research question addressed by the study is:

RO: What is the effect of specific factors on people's intention toward blood donation in Jordan?

Literature review

Factors that affect the intention for blood donation and hypothesis development

Altruism

Altruism is the psychological propensity to assist others without expecting payment in return. It serves as an innate drive to assist others (Kim et al., 2020). Highly altruistic individuals are more likely to assist others than those with low altruism (Kim et al., 2020). Altruism can be classified into two kinds, namely: pure and impure altruism (Robaina-Calderín et al., 2023). Pure altruism is one of intrinsic motivations that argues that a person is likely to donate blood for someone who does not know and did not expect anything in return, while impure altruism is considered when individuals donate to benefit others and gain an emotional warm glow (Evans and Ferguson, 2014; Romero-Domínguez et al., 2021).

Globally, several studies have been conducted to examine the influence of altruism on the behavioral intention to donate blood. In this context, a recent study was carried out by Shen and Ma (2023) to examine the main factors that impact Chinese university students to donate blood. Their study revealed that altruism was one of the determinants that influence the students to donate blood. Similarly, an American study was run by Rael et al. (2021) to determine the drivers that motivate Americans to donate blood, and it indicated that altruism incentives given from blood donation centers have an influence on individuals' intention for blood donation. However, altruism was considered to be an influential factor when donating blood. Another qualitative study was done by Berg et al., (2022) to explore the motivations of blood donation in South Africa, and it revealed that altruism was found to have an important association with the intention of blood donation for most of the participants. On the other hand, Fenomanana et al.

(2021), who undertook a study to better understand respondents' willingness to donate blood, stated that altruism was found to have less influence on individuals' intention to donate blood. Thus, a debate has been found in the literature regarding the effect of altruism on the donation intention for blood.

Correspondingly, and due to the essential role of altruism in the case of blood donation, the authors used the altruism construct as one of the independent factors. Based on these grounds, the first two hypotheses H1 and H2 were proposed as follows:

H1: Pure altruism has a positive influence on individuals' intention to donate blood.

H2: Impure altruism has a positive influence on individuals' intention to donate blood.

Medical incentives

Medically, prior to donating blood, physicians or blood bank staff are required to conduct a medical examination of the donor to ensure that they are suitable to donate blood without any health issues (Chand & Gupta, 2022). Many blood donors view these medical examinations as a motivation for donation to gain the results of a full blood test (Robaina-Calderín et al., 2023). Therefore, medical incentives can be considered as an important motive for encouraging people to donate blood. Several studies in the literature have confirmed the significance of medical incentives as a factor influencing blood donation behavior. For example, Robaina-Calderín et al. (2023) conducted an online survey with 30,619 active donors in Spain to understand blood donation behavior. They found that medical incentives had a positive impact on individuals' willingness to donate blood in Spain. Ambarini and Ibarat (2022) examined the main determinants that influence Indonesian people to donate blood and found that medical incentives were the most influential factors that affected individuals' willingness to donate blood in the Indonesian context. Similarly, Gahan et al. (2022) conducted interviews to explore the motives that encourage Australians to donate blood and concluded that some Australians were willing to donate blood due to medical incentives provided by medical centers. As well, Nguyen et al. (2008) also performed research to uncover the primary elements that influence people's intention to donate blood. They verified that medical incentives provided to donors are one of the most important motivations for blood donation. Similarly, Palacio and Santana (2018) asserted that medical incentives may increase the efficacy of donation programs, especially for

groups of both active and inactive donors. Hence, medical incentives were considered to be a crucial factor in persuading individuals' willingness to donate blood. Due to the importance of medical incentives, this study has adopted medical incentives as an independent variable. Therefore, the authors formulate the third hypothesis, H3, which is proposed as follows:

H3: Medical incentives have a positive influence on individuals' intention to donate blood.

Recognition incentives

Recognition incentives are obtained through the societal recognition that comes with being a frequent blood donor (Robaina-Calderín et al., 2023). In the context of blood donation, recognition incentives play a vital role in increasing the number of donors (Robaina-Calderín et al., 2023). A recent study undertaken by Calderín, et al. (2023) revealed that recognition incentives were one of the main factors that influenced people to donate blood. They stated that most of the respondents gave high importance to recognition incentives. Thus, recognition incentives can improve individuals' intentions for blood donation. Moreover, Allain (2019) studied blood donation behavior in India and claimed that one of the motives that drives Indians to donate blood is to gain social respect from others. For this reason, blood donation behavior is treated as a social duty by most Indians. Additionally, in Russia, due to the importance of the concept of social recognition coming from blood donation, many people donate blood more than 40 times (Sheldon et al., 2022). In their study, Zhang et al. (2020) examined the effect of recognition incentives on blood donation intention and behavior among university students in China. The authors conducted a randomized controlled trial in which participants were randomly assigned to receive either a recognition incentive (a certificate of appreciation or social recognition) or no incentive. The authors found that offering recognition incentives increased the intention to donate blood among university students, but did not have a significant effect on actual blood donation behavior. Correspondingly, in the current study, recognition incentives were utilized as an independent variable. Thus, based on the aforesaid, the fourth hypothesis, H4, was developed d as follows:

H4: Recognition incentives have a positive influence on individuals' intention to donate blood.

Marketing campaigns

Literature indicates that marketing campaigns play a crucial role in raising public awareness regarding any social issue (Manohar et al., 2022). Specifically, it could be argued that social marketing campaigns for blood donation should focus on donor behavior in a number of ways, removing barriers and boosting motivation to donate blood (Robaina-Calderín et al., 2023). Furthermore, it could be claimed that the lack of social marketing campaigns makes some people unwilling to donate blood to help society and ensure blood supply (Fenomanana et al., 2021). Therefore, marketing campaigns are deemed to be a key element in targeting new blood donors (Robaina-Calderín et al., 2023). Various studies have been done to better understand the influence of marketing campaigns on individuals' intention to donate blood. For example, (Feleke's, 2023) study examined the antecedents that influence the intention for blood donation, identifying potential factors that might influence people to donate blood. He stated that a lack of information about the health benefits of blood donation was one of the barriers that restrict the intention to donate blood. This makes people unaware of the process of blood donation. However, marketing campaigns are essential to increase the level of knowledge among individuals and persuade them to donate blood.

(Similarly, Ambarini and Ibarat, 2022) claimed that social marketing campaigns were found to be the most influential factors that affect individuals for blood donation in the Indonesian context. In another context, such as (Madagascar, Fenomanana et al., 2021) undertook a study to better understand the respondents' willingness to donate blood, stating that approximately 62.3% of the respondents reported that they were willing to donate blood. They also confirmed that marketing campaigns played an important role in enhancing the intention to donate blood. (Additionally, Behnampour et al., 2021) found that social marketing campaigns played a vital role in increasing the number of donors for blood. Their study revealed that Iranians had a high willingness to donate blood due to a high level of awareness and education for the benefits of blood donation. However, marketing campaigns are essential to increase the level of knowledge among individuals and persuade them to donate blood in different countries worldwide. As a result, the authors adopted marketing campaigns as one of the independent variables in this study. Therefore, the fifth hypothesis, H5, was suggested as:

H5: Marketing campaigns have a positive influence on individuals' intention to donate blood.

Facilitators

Facilitation refers to extrinsic motives that assess how well blood donation centers handle wait times and travel times to collect blood (Robaina-Calderín et al., 2023). Facilitators include assuring suitable location of donation places, providing an appropriate time for donors, and ensuring the duration of the blood extraction process is less than half an hour (Robaina-Calderín et al., 2023). Literature highlighted the importance of facilitators in the case of blood donation. For instance, (Gahan et al., 2022) carried out a study to explore the main motives of blood donation among Australians. They claimed that most of the participants in their study were affected by some of the facilitation factors, such as the time and location of donation centers. Some of the participants provided reasons that restrict part of the people from donating blood, and they reported that time and location of the blood donation center plaid a crucial role in reducing the number of donors. In this regards, (Robaina-Calderín et al., 2023) suggested that donation centers need to provide a suitable and acceptable location for blood donation, also these centers should employ enough number of staff to reduce the waiting time for the donors, especially in the peak time. However, blood donation centers should take these issues into consideration to attract more donors in the future. Besides, others, such as (Chen et al., 2020), argue that the waiting time for blood donations, as well as the appropriateness of the donation location, are important factors in encouraging individuals to donate blood in China. Based on the importance of the facilitator, as one of the variables that affect blood donation behavior, the researchers used this construct and the final hypothesis (H6) was suggested as follows:

H6: Facilitators have a positive influence on individuals' intention to donate blood.

In addition to the above mentioned studies, others such as (Bednall et al., 2013) conducted a comprehensive review to discover the factors that motivate individuals to give blood. They discovered that significant reasons for blood donation includes elements of the Theory of Planned Behavior (TPB), including attitudes, subjective norms, and perceived behavioral control. Furthermore, they argued that prosocial motivation, effective expectations, donor site experience, previous donation behavior, and donor demographics were discovered to be essential factors in giving blood from the donors' perspectives.

On the other hand, (Lemmens et al., 2005) undertook a study to understand the reasons that encourage people to donate blood. They stated that seven percent of the respondents had donated blood, whereas the vast majority indicated that they had never donated blood. They also discovered that self-efficacy, attitudes, and personal moral norms are the most important factors motivating people to donate blood.

(Reid and Wood, 2008), on one side, conducted aresearch in Australia t o determine the impact of TPB elements on donors' and nondonors' intentio ns to donate blood. They found that subjective norms, perceived behavioral control, and time-related obstacles all had an impact on current non-donors' intention to donate blood. On the other hand, in Jordan, (Batiha and AL-Bashtawy, 2013) carried out a study to evaluate the understanding of Philadelphia University students on blood donation. That study asserted that females have greater knowledge and understanding than males regarding blood donation.

Conceptual framework

Based on the discussion above regarding the hypotheses and constructs, Figure 1 illustrates the proposed conceptual framework developed for this study.

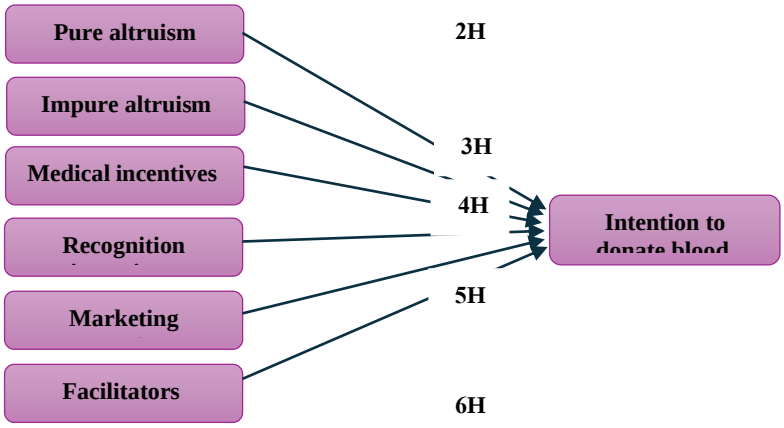


Figure. (1) The conceptual framework (Source: Calderín et al., (2023)

Accordingly, the current study seeks to answer the following research question:

RQ: What is the effect of various factors, namely pure altruism, impure altruism, medical incentives, recognition incentives, social marketing campaigns, and facilitators, on people's intentions toward blood donation in Jordan?

Method

Research paradigm

In scientific research, scholars argue that when the researcher has already decided to study a phenomenon using data from a survey (questionnaire), the research paradigm is considered to be the positivist paradigm (Krauss, 2005). In this study, the overall objective was to examine the influence of specific factors (pure altruism, impure altruism, medical incentives, recognition incentives, marketing campaigns, and facilitators) on individuals' intention to donate blood. Hence, the positivist paradigm is considered to be the most suitable research paradigm for this study.

Research design

In the current study, the researchers describe the stages they undertook to ensure the data collection method: selection of the population and sample, the steps taken to develop the research instrument and scale measurement, and the data analysis techniques used.

Data collection method

This study was conducted using a quantitative approach, where data were gathered using a questionnaire. Prior to collecting the primary data, the researchers comprehensively reviewed the extant literature related to the topic of the study in order to discover the research done in the area of research. Additionally, the researchers collected data between May 3, 2023 and May 19, 2023.

Study instrument and measurement items

The researchers developed the questionnaire based on previous studies published in research articles worldwide. The questionnaire was divided into two parts. The first part included information related to the demographic profile of the respondents, including gender, age, and education. Respondents were given different options to answer the questions related to demographics, such as male or female for gender, and 18-30, 31-43, 44-56, or 56 or more for age. For education, the study instrument contained five options to choose from: less than secondary education, secondary education, associate degree, bachelor, and post-graduate. The second part of the questionnaire involved questions related to the interval scale, which measured the influence of independent variables on the dependent ones. To measure the influence of attitudinal items on dependent variables, a five-point Likert Scale was employed, with response categories

ranging from strongly disagree to strongly agree (Saunders et al., 2009). As explained previously, this study used seven variables, either independent or dependent. The variables were as follows: pure altruism, measured using four items (PA1, PA2, PA3, and PA4); impure altruism, measured utilizing three items (IA1, IP2, and IP3); medical incentives, measured employing three items (MI1, MI2, and MI3); recognition incentives, measured via three items (RI1, RI2, and RI3); marketing campaigns effect, measured using three items (CAMP1, CAMP2, and CAMP3); facilitators, measured using three items (FAC1, FAC2, and FAC3); and intention to donate blood, measured utilizing two items (INT1 and INT2). The overall items were adapted from (Robaina-Calderín et al., 2023). Table (1) below demonstrates the items used in this study with their sources.

Table (1) Measurement items

Construct	Items
Pure altruism	(PA1) Fulfilling the social duty or ethical duty of assisting other individuals. .
	(PA2) Donation of the blood requires no big effort.
	(PA3) Because blood cannot be artificially produced, it is good to donate my blood to others.
	(PA4) I believe that personal satisfaction comes from assisting others.
Impure altruism	(IA1) Blood donation is good for my health.
	(IA2) I think the donation of blood enables me to feel beneficial and needed for others.
	(IA3) I guess that I or one of my family members may need blood in the recent future.
Medical incentives	(MI1) By blood donation, I can get blood test results, which in turn motivates me to donate my blood. .
	(MI2) Blood donation makes me know if I have an infectious disease or not. .
	(MI3) Blood donation helps me to receive medical advice on my health.
Recognition incentives	(RI1) Blood donation makes me gain positive social recognition related to being a blood donor.

Construct	Items
	(RI2) If I receive symbolic gifts for donating blood, I may do it.
	(RI3) In the future, receiving symbolic rewards may motivate me to donate blood.
Marketing campaigns	(CAMP1) Marketing campaigns on different media (mass media, social media) play a vital role in enhancing my intention to donate blood.
	(CAMP2) If I get a message or call from the center of blood donation, I may think about the donation.
	(CAMP3) Through marketing campaigns, I can hear the testimony of individuals who received blood from donations.
Facilitators	(FAC1) The availability of an appropriate place for donation venues drives me to think about the donation of blood. .
	(FAC2) If the time of donation is less than half an hour, I may think to donate.
	(FAC3) If the duration of the blood extraction process is less than half an hour, this might motivate me to donate
Intention to donate	(INT1) I think I will donate my blood in the next few months.
	(INT2) I would prefer to be a blood donor in the near time.

Data analysis techniques

In the present study, the researchers utilized several statistical tools to analyze the primary data. The first step in data analysis was for descriptive statistics of the respondents' demographic profile, such as frequency and percentage. Then, the researchers used two essential methods, namely kurtosis and skewness to ensure the normal distribution of the data. Further, the authors conducted various methods to check the reliability and validity

of the data, such as Cronbach's alpha (internal consistency), composite reliability (CR), face (content) validity, factor loading value, and convergent validity. To test the stated hypothesis, the researchers employed a regression equation to identify the potential influence of some factors on the intention to donate blood in Jordan. In the current study, SPSS software version 26 was used to analyze the demographic data and descriptive statistics. Smart-PLS4 was performed to compute the value of the aforementioned reliability and validity tests, as well as to test the stated hypothesis. The findings section demonstrates the results of all the mentioned techniques.

Population and sample

The population of the present study can be defined as individuals or persons who aged 18 years and older and reside in Karak, Ma'an, Aqaba and Tafilah regions, who either donate blood or not and agree to participate in the study. Regarding the sample size, there is debate about the sample size. For instance,(Kline, 2015) indicated that sample size can be identified based on the number of constructs used in the research. In this respect, (Kline, 2015) reported that the researchers need to use the general rule of thumb: 20:1. This means that the researchers have to select 20 respondents for each construct in the model. On the other hand, others argue that for the studies to use SEM (Structural Equation Model), the researchers need to employ 200 respondents (Kline, 2011). On the other side, (Hair et al., 2010), suggested the researcher should select five respondents for each single items in the measurement scale. In the current study, the sample size was 584. Thus, this number is in line with the above-mentioned suggestions. Accordingly, the sample size of this study is adequate. In respect to the sampling method, the present study employed a convenient sampling method for data collection. In this context, the researchers targeted people who visit several medical places such as hospitals, clinics, and other healthcare centers.

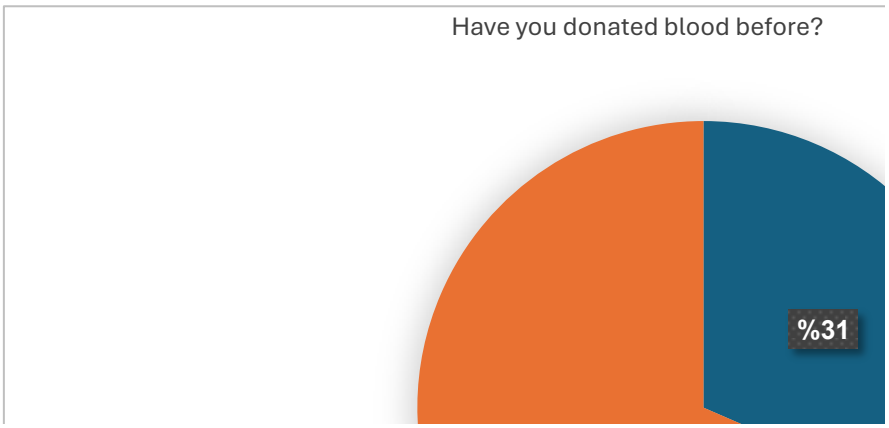
Findings

Sample demographic profile

Table (2) Demographic profile

Variable	N (%)	
Gender	584	
Males	241	41.3
Females	343	58.7
Age		
18-30	354	60.6
31-43	118	20.2
44-56	80	13.7
More than 56	32	5.5
Education		
Less than secondary	7	1.2
Secondary education	60	10.3
Diploma	104	17.8
Bachelor	331	56.7
Post-graduate education	82	14

As shown in the table above, this study consisted of 584 respondents, including 58.7% females and 41.3% males. More than half of the respondents (60.6%) were between 18 to 30 years old, while 20.2% were between 31-43 years old, and 13.7% of the respondents were between 44-56 years old, with only 5.5% aged 56 years or above. The majority of the respondents were either undergraduates or postgraduates (70.7%), with only 17.8% having completed diploma education, and just 11.5% having secondary education or less. In this study, the authors asked the respondents questions pertaining to their history of blood donation. Pie chart (1) below displays the responses of the respondents towards this question. As illustrated in the pie chart (1), only 31% of respondents had previously donated blood to donation centers located in medical centers or clinics administered by the Jordanian Ministry of Health or public and military hospitals. Meanwhile, the largest group of respondents (69%) indicated that they had never donated blood before. Thus, based on these initial findings, the researchers justified the need for conducting this study to increase the body of knowledge on the main motives that contribute to increasing the number of donors in the near future.



Pie chart (1) History of blood donation

Data normality

The first step in data analysis is to check for normal distribution. However, in this study, the researchers used two essential techniques to ensure the normality of the data. As indicated by (Hair et al., 2010), skewness and kurtosis are considered the most commonly used methods for testing the normality of quantitative data. According to (Kim, 2013), the absolute value of skewness should be 2 or less, and the absolute value of kurtosis should be 7 or lower. Hence, the authors conducted the two techniques using SPSS software. Table (4) displays the results of the two tests, which confirmed that the data for all items (manifest variables) were normally distributed.

Convergent validity

Convergent validity is used to assess the degree to which a set of items that measure a particular variable or factor correlates with that factor (Hair et al., 2010). To calculate the value of convergent validity, the average variance extracted (AVE) must be computed (Hair et al., 2010). Convergent validity is established when the value of AVE is 0.50 or higher (Hair et al., 2010). Table (3) presents the AVE values based on the PLS 4 smart software output. As shown in the table, the AVE values for all variables were found to be above 0.50, indicating that convergent validity was achieved.

Composite reliability (CR)

Another statistical technique used to check the reliability of interval data is the composite reliability (CR). According to (Hair et al., 2010), an acceptable value for CR is 0.70 or higher. Table (3) reports the findings of the PLS analysis, which show the values of CR for each variable. As illustrated in the table, all CR values were found to be acceptable, being 0.70 or higher.

Reliability coefficient (Cronbach's Alpha)

Cronbach's Alpha is a statistical test used to assess the internal consistency of measurement items. According to (Hair et al., 2010), an acceptable value for this test is 0.60 or higher. The results of the PLS analysis in this study indicated that all values of this test were acceptable, being 0.60 or higher (see Table 3).

Table (3) Results of measurement model

Construct	Items	Factor loading	AVE	CR (composite reliability)	Cronbach's alpha
Pure altruism	PA1	0.724	0.592	0.813	0.656
	PA2	0.561			
	PA3	0.742			
	PA4	0.735			
Impure altruism	IA1	0.779	0.631	0.836	0.709
	IA2	0.858			
	IA3	0.670			
Medical incentives	MI1	0.750	0.713	0.881	0.797
	MI2	0.877			
	MI3	0.855			
Facilitators	FA1	0.720	0.589	0.810	0.655
	FA2	0.803			
	FA3	0.807			
Recognition incentives	RI1	0.892	0.690	0.869	0.793
	RI2	0.745			
	RI3	0.861			
Marketing campaigns	MC1	0.820	0.674	0.861	0.765
	MC2	0.798			
	MC3	0.863			
Intention to donate	INT1	0.877	0.774	0.873	0.711
	INT2	0.897			

Table (4) Normal distribution

Construct	Items	Skewness	Kurtosis
Pure altruism	PA1	-1.190	3.357
	PA2	-0.796	0.928
	PA3	-0.847	0.389
	PA4	-0.785	0.813
Impure altruism	IA1	-0.376	-0.377
	IA2	-0.458	-0.234
	IA3	-0.668	0.054
Medical incentives	MI1	-1.204	2.143
	MI2	-0.915	0.505
	MI3	-0.848	0.441
Facilitators	FA1	-0.548	-0.014
	FA2	0.382	-0.877
	FA3	-0.168	-0.925
Recognition incentives	RI1	-0.742	0.622
	RI2	-0.826	1.254
	RI3	-0.536	0.232
Marketing campaigns	MC1	-0.873	0.775
	MC2	-0.723	0.256
	MC3	-0.956	1.863
Intention to donate	INT1	-0.986	2.154
	INT2	-0.542	-0.151

Face validity

In addition to the previously mentioned forms of validity, the researchers also used face validity or content validity as suggested by (Zikmund et al., 2013) to ensure the validity of the research questions. This method involves giving the questionnaire to a small sample of respondents to check if they understand the meaning of the items included in the survey. If the respondents can understand the meaning of all the items without any misunderstandings, then the content or face validity is ensured. In the present study, the researchers confirmed that all questions included in the questionnaire were understood by the respondents. Therefore, face validity was established in this study. It is worth noting that face validity was assessed during the pre-test stage of the study.

Hypothesis testing and findings

As previously discussed, this study aimed to test six hypotheses using Smart-PLS version 4, which is a statistical software based on structural equation modeling (SEM) techniques using partial least squares (PLS). SEM is a widely used second-generation multivariate data analysis method that is particularly suitable for testing theoretically supported linear and additive causal conceptual frameworks in social and humanitarian sciences (Hair et al., 2011). Hence, Smart-PLS was deemed the most appropriate statistical software for the current study. The model validation results are shown in Figure (2). During the first run of Smart-PLS, item (PA2) had a low factor loading of 0.561, which was lower than the acceptable threshold. Therefore, the authors removed this item from the model. The second run of Smart-PLS confirmed that the factor loading values for all remaining items were acceptable. Table (3) presents these results. Figure (2) displays the output of Smart-PLS for the first run, while Figure (3) illustrates the final run of Smart-PLS.

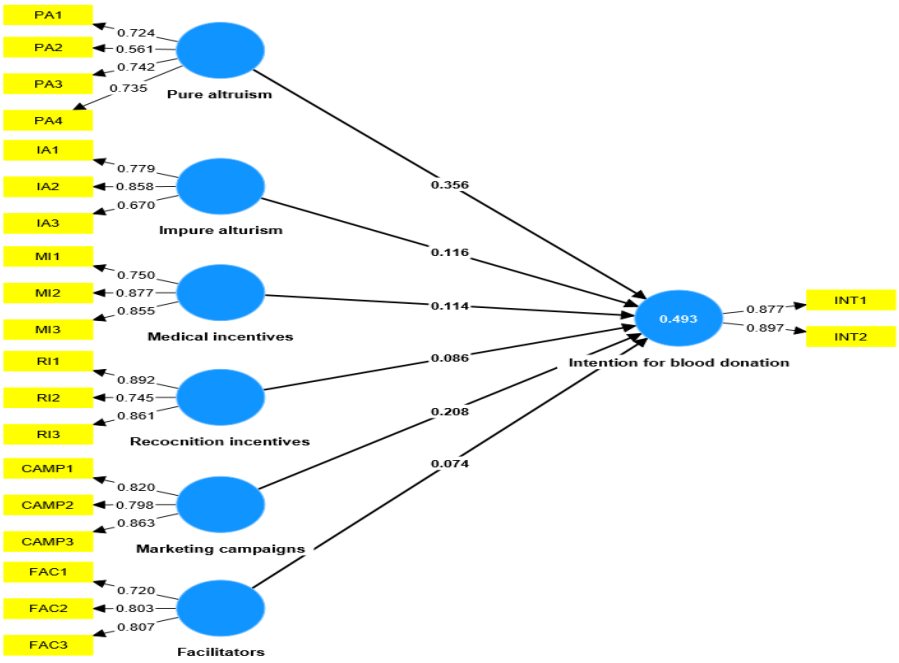


Figure (2) Initial model

As already stated, after removing the second item of pure altruism construct (PA2), figure (3) illustrates the final version of the validated model.

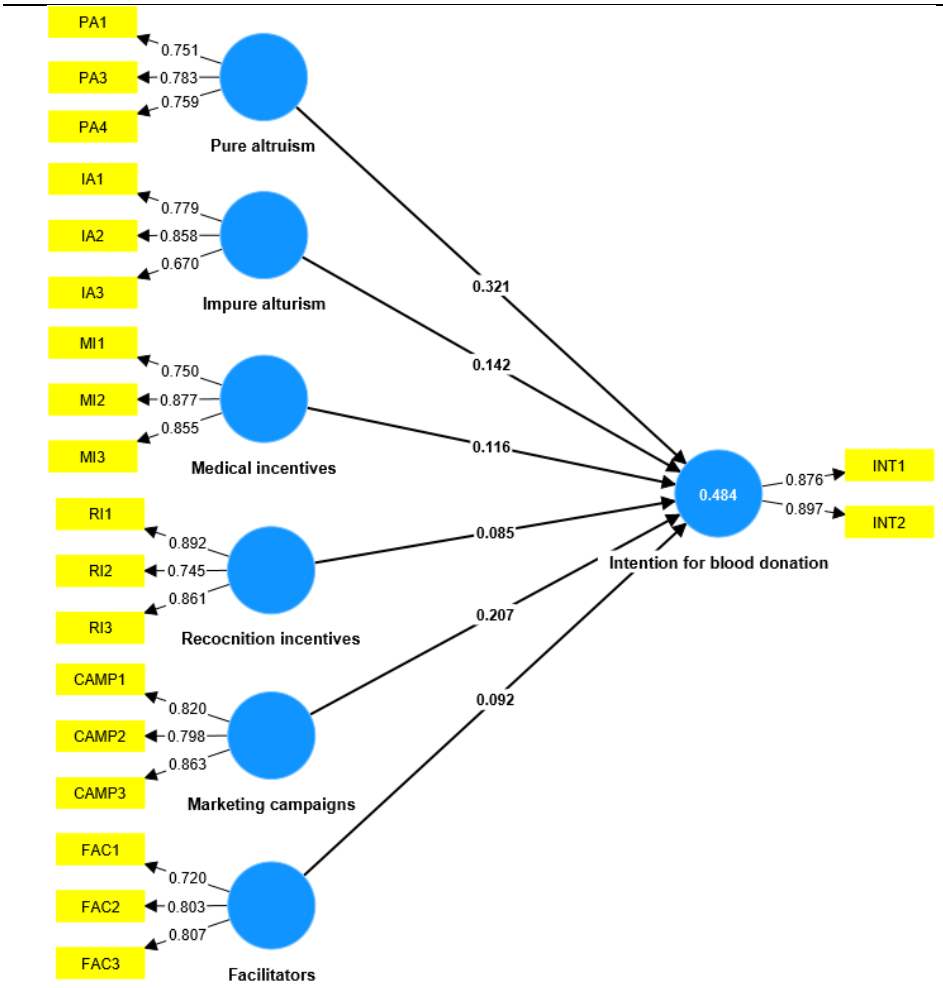


Figure (3) Validated model

In addition, the researchers used Smart-PLS to verify the path coefficient analysis. Table (5) shows the results of the hypothesis testing procedures.

Table (5) Results of structural model

R/ship		Hypothesis		Std.Beta	Std.error	Decision
		P value	t-value			
H1	PA → INT	0.321	0.039	8.186	0.000	Supported
H2	IA → INT	0.142	0.047	2.989	0.003	Supported
H3	MI → INT	0.116	0.048	2.429	0.015	Supported
H4	RI → INT	0.085	0.039	2.177	0.003	Supported
H5	CAMP → INT	0.207	0.045	4.563	0.000	Supported
H6	FAC → INT	0.092	0.038	2.408	0.016	Supported

As shown in the model, the first hypothesis examines the impact of pure altruism on individuals' intention to donate blood. As reported in Table (4), the results illustrate that the pure altruism construct significantly influenced individuals' intention of blood donation (the p-value was significant at <0.000 level ***). Additionally, the path coefficient (β) was 0.321, with a critical ratio (t-value) of 8.186. That is, an increase in one unit of the pure altruism construct would lead to an increase in the intention to donate blood by 0.321. Therefore, this hypothesis was supported.

The second hypothesis was formulated to investigate the impact of impure altruism on people's intention to donate blood. The path analysis revealed that the impure altruism construct had a significant influence on the intention of blood donation (the p-value was significant at the 0.003 level **). Furthermore, the path coefficient (β) was 0.142, with a critical ratio (t-value) of 2.989. Thus, an increase in one unit of the impure altruism construct would lead to an increase in the intention towards blood donation by 0.142. Therefore, this hypothesis was supported.

Based on the information provided, it can be concluded that the third hypothesis was supported. The path analysis found that medical incentives have a positive and significant influence on individuals' intention to donate blood, with a p-value of .015, which is less than the standard significance level of 0.05. This suggests that offering medical incentives, such as free health check-ups or blood tests, may encourage individuals to donate blood. Besides, based on the information provided, it can be concluded that the

fourth hypothesis was supported. The path analysis found that recognition incentives have a significant influence on individuals' intention to donate blood, with a p-value of 0.003, which is less than the standard significance level of 0.05. This suggests that recognizing and rewarding individuals for their blood donation, such as through certificates or social recognition, may encourage them to donate blood again in the future. The path coefficient of 0.085 indicates that a one-unit increase in recognition incentives would lead to an increase in the intention to donate blood by 0.085, highlighting the importance of recognition incentives in promoting blood donation.

In the present study, the path analysis results indicate a significant influence of marketing campaigns on intention to donate blood, with a p-value of .000 (less than the threshold of .05). Therefore, H5 is supported. The final hypothesis aimed to investigate the influence of the facilitators construct on Jordanians' intention to donate blood. The path analysis revealed a significant influence of the facilitators construct on intention to donate blood, with a p-value of 0.016**. Additionally, the path coefficient (β) was 0.092 with a critical ratio (t-value) of 2.408. These results indicate that an increase of one unit in the impure facilitators construct would result in a 0.092-unit increase in the intention to donate blood. Based on such grounds, the hypothesis was accepted.

Discussion

The overall objective of the current study was to examine the influence of specific factors (pure altruism, impure altruism, medical incentives, recognition incentives, marketing campaigns, and facilitators) on the intention to donate blood. Based on the findings of the path analysis, this study found that all of the mentioned factors positively influenced individuals' intention to donate blood in the Jordanian context. These findings are consistent with past studies. For instance, this study reported that both pure and impure altruism positively influenced the intention to donate blood. This finding is consistent with Jaafar (2022) study, which found a strong association between altruism and the intention to donate blood. Similarly, the results of this study are in line with Berg et al. (2023), which stated that altruism was the most commonly reported motivation for blood donation among Southern Africans. The existing study also found that medical incentives were one of the key factors that enhance the intention to donate blood in Jordan. This result was consistent with (Ambarini and Ibarat, 2022), which asserted that Indonesians were influenced by medical

incentives when donating blood. (Similarly, Gahan et al., 2022) demonstrated that many Australians are more likely to donate blood due to medical incentives.

Regarding recognition incentives, this study confirms the positive influence of this construct on people's intention to donate blood. Additionally, these results are in line with (Allain's, 2019) findings, who reported that the number of Indians intending to donate blood was based on the recognition incentives that played an essential role in the context of blood donation. With regard to social marketing campaigns, the current study reveals that these campaigns have a significant influence on the intention towards blood donation. These campaigns also assist in increasing individuals' awareness and knowledge regarding the behavior of blood donation in Jordan. This finding is consistent with those of (Robaina-Calderín et al., 2023), who stated that marketing campaigns were crucial in providing information about blood donation as well as encouraging and persuading people to donate blood. (Similarly, Behnampour et al., 2021) showed that social marketing campaigns played a vital role in increasing the number of blood donors in Iran.

Finally, this study revealed that facilitators were one of the factors that donors consider before donating blood. The respondents indicated that the availability of an appropriate place in the donation center is crucial to enable them to donate blood, and they value short donation times. This result is consistent with (Gahan et al., 2022) study, which reported that facilitators such as the time and location of donation centers were key determinants of people's blood donation intention. Similarly, Robaina-Calderín et al., 2023) confirmed the positive influence of facilitators on the behavioral intention of blood donation.

Conclusion

As previously mentioned, the ratio of blood donors in Jordan has increased to 2%, but this percentage is still low. This creates an opportunity to undertake social marketing studies to better understand how to motivate people to donate blood. Therefore, the current study was carried out to examine the main factors that influence Jordanians' blood donation intention. The study showed that there is a positive and significant influence of pure and impure altruism, medical incentives, recognition incentives, marketing campaigns, and facilitators on individuals' intention for blood donation behavior.

However, the study suggests that to encourage people to donate blood, there is a need to focus on using effective marketing campaigns using different platforms and methods to increase awareness of the importance of blood donation to society. Further, one suggestion from the study was to make the location and time of the donation process suitable for potential donors and to provide more facilitators to donors to facilitate the donation process. In addition, because many people consider recognition incentives when donating blood, social surroundings, such as parents, friends, and others, can also encourage people to donate blood. Also, since most of the respondents emphasized the altruism factor when donating blood, donation centers and other practitioners, such as the Ministry of Health and Military Medical Services, need to use more programs to enhance altruistic behavior among people to motivate them to donate blood.

Contribution of the study

The current study provides contributions at the level of both theory and practice. First, due to the lack of social marketing research focusing on the behavioral intention for blood donation in Jordan, the current study has been conducted to fill this gap in the literature by showing the possible influence of specific factors on the blood donation intention. Second, the findings of the current study may serve as a reference for many academic studies. Third, by identifying the key factors that influence Jordanian people to donate blood, the study's findings could be useful to several practitioners of blood donation such as Blood Banks, the Ministry of Health, Military Medical Services, as well as private medical clinics. These findings could be incorporated into social marketing policies and strategies to encourage more people to donate blood in the future. Therefore, this study is considered necessary from the authors' viewpoint.

Limitation and future work direction

This section provides a succinct overview of the limitations of the study and offers some recommendations for future work. First, the generalizability of the findings is one of the limitations in scientific research. Thus, this study is not exceptional. The existing study was undertaken in four governorates in southern Jordan, namely Karak, Ma'an, Aqaba and Tafilah. However, future research in other Jordanian places is recommended to increase the validity of the results. Second, the current study examined the factors influencing people's intention to donate blood; hence, this study ignored the barriers that restrict people from donation. Correspondingly,

future research might attempt to identify the obstacles that restrict people from donation. Third, even though this study emphasized Jordanian people, future research is needed to understand the main factors that influence the intention towards blood donation in other developing countries. Finally, the present study employed a quantitative research approach to achieve its overall objective. This is why future work could be conducted using a qualitative research approach, such as interviews or focus groups to gain a better understanding of how and why people donate or do not donate blood.

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