Exploring The Reason Why People Willing to Donate Blood: An Application in Social Marketing Context

Proposed to Complete The Requirements to Obtain Bachelor’s Degree of Economic

By:
RICO DHANY SAMODRO
NIM. F0207019

FACULTY OF ECONOMIC MANAGEMENT
SEBELAS MARET UNIVERSITY
SURAKARTA
2012
ABSTRACT

Purpose — The purpose of this research is to explore blood donation motivation among individual to give understanding in social marketing context. It aims to measuring the role of altruism, moral norm, donor’s knowledge, and perceived risk that all observed variables have explored in past studies.

Design/methodology/approach — Data is collected through survey method that is guided by questionnaire. Data sample is based on a survey of 200 eligible donors in Surakarta. A structural equation modelling approach is used in the data analysis.

Findings — The results showed that altruism, moral norm, donor’s knowledge and perceived risk were correlates of blood donation intention. While altruism and donor’s knowledge were not supported to less the perceived risk.

Research Limitation — Since this was a small-scale study among the people in surakarta, further research is necessary to validate its results among other demographic groups.

Practical implication — Findings were reported to Indonesian Red Cross in Surakarta in order to increase blood donations among individuals in Surakarta. This paper give some recommendation to Indonesian Red Cross how to act effective recruitment blood donors. Subject to validation through further research, applying recommended approaches in different countries and other demographic groups is suggested.

Keywords Blood Donor’s Intention, Altruism, Donor’s Knowledge, Social Marketing

Paper Type Research paper
APPROVAL SHEET

Thesis Entitled:

Exploring The Reason Why People Willing to Donate Blood: An Application in Social Marketing Context

Surakarta, Desember 22nd 2011
Approved and signed by:
Counselor Thesis

Dr. Budhi Harjanto, MM
NIP. 19600904 198601 1 001
LEGALIZATION

This thesis has been approved and accepted by the Final Project’s Examiners to complete the requirements to obtain the Degree Bachelor Of Economic.

Surakarta, January 2012

Board of Examiners:

1. Prof. Dr. Tulus Haryono, M.Ek. NIP. 19550801 198103 1 006 Chairman (........................)

2. Dr. Budhi Haryanto, M.M. NIP. 19600904 198601 1 001 Supervisor (........................)

3. Drs. Djoko Purwanto, M.B.A. NIP. 19690116 198503 1 004 Secretary (........................)
MOTTO

Jalani hidupmu dengan apa yang kamu inginkan dan pikirkan, dan janganlah hidup dengan apa yang orang lain inginkan dan pikirkan tentang kamu. Let you do anything what you want while not fading away the truth. Actually the most truth is ALLOH Azza wa Jalla.

(Writer)
Dedicated TO:

My Royal Family
Luluk Mivta Khunniza
Dr. Budhi Haryanto, MM
Almamater
PREFACE

Alhamdulillahi Robbil’alamin. Praises and thanks to Alloh the Almighty god for all of the help and permit so the writer can be finished the thesis even by hard effort and long time. The writer with the respectful also would like to say thank you very much for every people who given their hand to help in the process of writing, they are:

1. Dr. Wisnu Untoro, MS. The Dean of the Economic Faculty.
2. Dr. Hunik Sri Runing S., M.Si. The Major Head of Management.
3. Dr. Budhi Haryanto, MM. The Consellor who has given his valuable guidance, motivation, suggestion and help during the process of the thesis.
4. And all person who can’t be said one by one who has helped the writer until finishing the process.

Finally the writer realizes that the thesis is still far from being perfect.

Surakarta, January 2012

Author
CONTENTS

ENTITLED .............................................................................................................I

ABSTRACT ............................................................................................................ii

APPROVAL SHEET ..................................................................................................iii

LEGALIZATION ......................................................................................................iv

MOTTO ..................................................................................................................v

DEDICATION WORDS ..........................................................................................vi

PREFACE ...............................................................................................................vii

CONTENTS ...........................................................................................................ix

FIGURE LIST .......................................................................................................xi

TABLE LIST .........................................................................................................xii

CHAPTER 1 INTRODUCTION

A. Problems Background .......................................................................................1
B. Problems Research ............................................................................................3
C. Study Purposes ..................................................................................................5
D. Implications .......................................................................................................6

CHAPTER 2 THEORITICAL BACKGROUND AND HYPOTHESIS

A. Definition of Intentions To Donate Blood.......................................................7
B. Study Position ...................................................................................................7
C. Observed Variables and Hypothesis ...............................................................11
D. Theoritical Model .............................................................................................15

CHAPTER 3 RESEARCH METHODOLOGY

A. Research Scope ................................................................................................17

commit to user
CHAPTER 4 DATA ANALYSIS AND DISCUSSION

A. Descriptive Statistic Analysis ..................................................... 23
B. Data Quality ................................................................. 25
C. Data Research Analysis ...................................................... 29
D. Mediation Analysis Model .................................................. 37
E. Hypothesis Test .............................................................. 39
F. Discussion ................................................................. 40

CHAPTER 5 SUMMARY AND IMPLICATION

Summary ................................................................. 46
Implication ............................................................. 46

REFERENCES

APPENDIX
FIGURE LIST

Figure

I.1 Theoretical Model .................................................................16
IV.1 Hypothesis Test Result .......................................................39
TABLE LIST

Table
II.1 Study Position ........................................................................................................... 8
IV.2 The Test Results of Validity ..................................................................................... 27
IV.3 The Test Results of Reliability .................................................................................. 28
IV.4 Normality Test Result .............................................................................................. 30
IV.5 Outlier Test Result .................................................................................................. 32
IV.6 Goodness-of-Fit Constrained Model ...................................................................... 33
IV.7 Loading Factors of Each Instrument ........................................................................ 35
IV.8 Goodness-of-Fit Modification Indices .................................................................... 36
IV.9 Mediation Analysis .................................................................................................. 37
IV.10 Regression Weights ............................................................................................... 40
ABSTRACT

**Purpose** — The purpose of this research is to explore blood donation motivation among individual to give understanding in social marketing context. It aims to measuring the role of altruism, moral norm, donor’s knowledge, and perceived risk that all observed variables have explored in past studies.

**Design/methodology/approach** — Data is collected through survey method that is guided by questionnaire. Data sample is based on a survey of 200 eligible donors in Surakarta. A structural equation modelling approach is used in the data analysis.

**Findings** — The results showed that altruism, moral norm, donor’s knowledge and perceived risk were correlates of blood donation intention. While altruism and donor’s knowledge were not supported to less the perceived risk.

**Research Limitation** — Since this was a small-scale study among the people in surakarta, further research is necessary to validate its results among other demographic groups.

**Practical implication** — Findings were reported to Indonesian Red Cross in Surakarta in order to increase blood donations among individuals in Surakarta. This paper give some recommendation to Indonesian Red Cross how to act effective recruitment blood donors. Subject to validation through further research, applying recommended approaches in different countries and other demographic groups is suggested.

**Keywords**  Blood Donor’s Intention, Altruism, Donor’s Knowledge, Social Marketing

**Paper Type**  Research paper
ABSTRAK

Penelitian ini bertujuan untuk menggali motivasi pendonor darah dalam melakukan donor darah sehingga hal ini dapat memberikan pemahaman dalam konteks pemasaran social. Hal ini juga bertujuan untuk mengukur peran variabel altruisme, norma moral, pengetahuan donor dan persepsi resiko.

Data dikumpulkan melalui metode survey yang didapat dari kuesioner. Sampel data berdasarkan dari survey yang dilakukan pada 200 pendonor yang memenuhi persyaratan sebagai pendonor di kota Surakarta. Untuk menganalisis data menggunakan SEM sebagai alat ukur.

Hasil penelitian menunjukkan bahwa altruisme, moral norm, pengetahuan donor dan persepsi resiko berhubungan dengan niat berdonor darah. Sementara itu altruism dan donor knowledge tidak didukung untuk menjelaskan persepsi resiko.

Hasil penelitian dapat digunakan untuk PMI Surakarta sebagai masukan untuk meningkatkan pemasukan darah melalui strategi-strategi yang dijelaskan dalam penelitian ini. Penelitian ini memberikan beberapa rekomendasi untuk PMI Surakarta bagaimana melakukan rekrutmen yang efektif untuk memperoleh pendonor darah yang banyak.
CHAPTER 1
INTRODUCTION

A. Problems Background

The intentions to donate blood is an interesting topic in social marketing area, because previous studies indicates the variety of models in explaining these phenomenon (see Allen and Butler, 1993; Reid and Wood, 2008; Lemmens et al., 2009). This phenomenon showed that past studies had limitation in applying the model at different setting. It causes of each model was established based on methodological scope and different setting that effects on problem arise if the model applied on different setting too. So, it gives an opportunity to this study in designing an alternative model that can explain the phenomenon in Indonesia especially in Surakarta. Moreover, it is hoped could be an effective model in recruiting the people to donate blood.

The alternative model in this study is based on four variables namely altruism, donor knowledge, perceived risk, and moral norm (see Allen and Butler, 1993; Lemmens et al., 2009). It causes of that variables are estimated relevant with the phenomenon in Indonesia. The defines of each variables is explained below.

Altruism is the first independent variable, that is positioned through moral norm in predicting the intentions to donate blood. Several studies have found that donors mentioned altruistic reasons for donating blood (see Glynn et al., 2002; Healy, 2000; Misje, Bosnes, Gasdal, & Heier, 2005; Suarez et al., 2004). It indicates positive correlation in Past study suggested that altruism had positive correlation with
intentions to donate blood but only indirectly through moral norm (see Lemmens et al., 2009).

In this study, moral norm is designed as mediator variable in the model to predict intentions to donate blood. It causes of Being altruistic leads to stronger moral norm regarding donation (see Lemmens et al., 2009). Moreover, several studies have examined the relationship between moral norm and intention, which intentions may be shaped by a sense of moral obligation (see Parker et al., 1995; Armitage and Conner, 2001; Lemmens et al., 2005).

Donor knowledge is the second independent variable to measure objective variable. The results of past study suggest that donor knowledge will not directly affect their intentions to donate blood and the effect of donor knowledge on individual’s intentions to give blood is mediated by their perception of risk (see Allen and Butler, 1993).

Perceived risk as mediator between donor knowledge and intentions to donate blood is a worthy variable. Perceived risk here refers to the importance donors attribute to the consequences of donating. Specifically, the dimensions of overall perceived risk addressed in this study relate to the consequences of physical, psychological, social, and time risk associated with blood giving.

Although the correlations are somewhat low, they tend to be same with previous studies and provide useful point (see Allen and Butler, 1993). Blood bank marketers should not only make it convenient for people to give blood, but also continue to inform them of when and where they can donate and how long donating will take. It because, from the results of past study (see Allen and Butler, 1993), both
place and waiting time are negatively correlated with donating intention. Providing information will be increase donor knowledge that influence perceived risk and also should increase the likelihood of giving blood (see Allen and Butler, 1993).

In this study, perceived risk not only to be mediator between donor knowledge and intentions to donate blood, but also it is expected to give prediction into intentions to donate blood by altruism as antecedent. These expression was based on logical view about conclusion of depth interview among donors (see appendix 1). Donors had the feeling as a personal responsibility and getting the desire to benefit someone else and no thinking about the risk when they do that. That feeling is a general characteristic of altruism (see Batson and Powell, 2003; Dovidio et al, 2006). So, in this study, altruism is expected to perform through perceived risk on the alternative model.

In this study, to test a model of blood donation intention was conducted among individuals in Surakarta. The reason why Surakarta choosen as study area its because according to the Indonesian Red Cross Surakarta Branch where the stock volumes of blood is biggest in Indonesia.

B. Problems Research

The relationship among variables that designed the new model could be formulated in problems research is explained below.

1. First problem is related to positive correlation between altruism and intention (see Lemmens et al, 2009). The higher altruism, the higher intention. The first problem is formulated as follow:

   \[ \text{commit to user} \]
**How does altruism influence on intentions?**

2. Previous study also indicates the positive correlation between moral norm (see Lemmens *et al.*, 2009). In condition of the higher altruism was impact on the higher moral norm. So, the second problem was:

**How does altruism influence on moral norm?**

3. More correlation among variables from Lemmens *et al.*, (2009) was positive correlation between moral norm and intentions. It means, the higher moral norm would increase the intentions. The third problem is formed as follow:

**How does moral norm influence on intentions?**

4. Next problem is based on previous study that indicates the negative correlation between donor knowledge and perceived risk (see Allen and Butler, 1993). In other words, as individuals gain knowledge, they tend to perceive less risk. The next problem is formulated as follow:

**How does donor knowledge influence on perceived risk?**

5. Fifth problem is based on same study with last paragraph which indicates the negative correlation between perceived risk and intentions (see Allen and Butler, 1993). In condition of perceive less risk, individuals would gain more intentions. So, the fifth problem is formulated as follow:

**How does perceived risk influence on intentions?**

6. Furthermore, still regarding two previous paragraphs, in Allen and Butler., (1993) indicates that donor knowledge wouldn’t directly affect to the blood donation intentions. In the case of blood donation, it is doubtful that donor knowledge
would intend to give blood without knowledge of the associated risk. So, the problem is formulated as follow:

**How does donor knowledge influence on intentions?**

7. At last, formulated the seventh problem that related to 2 previous studies. In this study, two variables of each previous study would examine which is Altruism (see Lemmens *et al.*, 2009) and perceive risk (see Allen and Butler, 1993). Based on several donor’s experience in surakarta that the individuals who had soul of altruism would reduce perceive risk. So, the last problem is formulated as follow:

**How does altruism influence on perceived risk?**

C. Study Purposes

The aim of this study is to design an alternative model that appropriate on motivation of individuals to give their blood in Surakarta setting. Causes of the previous studies’s model had limitation or too simple in applying to investigate the case of blood donation.

This model is expected to give much value for PMI’s in establishing most volunteer and predicting the intentions to be volunteer regarding blood donation, that is relevant to actual problems in Indonesia especially in Surakarta. Specifically, the aim of this study is to explain the correlation among of the observed variables.

1. The influence of altruism on intentions.
2. The influence of altruism on moral norm.
3. The influence of moral norm on intention.
4. The influence of knowledge on perceived risk.
5. The influence of perceived risk on intentions.
6. The influence of knowledge on intentions.
7. The influence of altruism on perceived risk.

D. Implications

There are three implications in this study, such as theoretical implication, practical implication, and continues study implication. That implications are explained below:

1. Theoretically, this study is expected may give explanation about intentions to donate blood phenomenon, so it used as reference in discussing the theory on social marketing area. In turn, it is hoped could enrich theoretical understanding in social marketing study.

2. This study has a limitation in applying the model, it needs continuing explanation in developing measurement in another context. So, it gives an opportunity for next study to develop new alternative model

3. On the practical implication, the results of this study may be incorporated into the operational and promotional activities of blood banks. By learn this phenomenon, blood bank marketers wishing to provide useful information to stimulates individuals, such as non-donors, should carefully study the donation environment and the content of their promotional literature (see Allen and Butler, 1993).
CHAPTER 2
THEORETICAL BACKGROUND AND HYPOTHESIS

This chapter describes 4 sub chapters that is used to explain the position of this study and investigate the literature as theoretical background. It is aimed to give an understanding the background of hypothesis in turn used to make a new model. The sub chapters consists of definition of the intentions to donate blood, study position, variables discussion and hypothesis, and theoretical model. The explanation of each aspect is described below.

A. Definition of Intentions To Donate Blood

The intentions to donate blood is defined as individual’s consideration related to donate his/her blood to the others. It is indicated that those variables may be measures the intentions to donate blood. This phenomenon gives an understanding to blood bank marketers and viewer that to recruit the donors they have to stimulate the non-donors by increase the variables.

The intention is the most proximal determinant of behaviour. Intention, in turn, is determined by attitude, subjective norm, and perceived behavioural control (Ajzen, 1991). Attitude reflects a person’s evaluation of the behaviour and can be divided into an affective and a cognitive component (Conner & Sparks, 1996;). Affective attitude includes expectations of pain and fear for blood and/or needles; cognitive attitude indexes the importance of rewards and risks. This variable is influenced by several variables (see Allen and Butler, 1993; Lemmens et al., 2009; Reid and Wood, 2008; Godin et al., 2005).
B. Study Position

Table 1.1 explains the study position by identified variables in previous studies, and analytical tools that is used to understanding the divergence between this study and previous studies. Those table is served the column that is filled basic information from previous studies.

This study uses the intentions to donate blood as objective variable (see Allen and Butler, 1993; Lemmens et al., 2009) and four observed variables that is adopted from previous studies, namely altruism (see Lemmens et al., 2009), donor knowledge (see Allen and Butler, 1993), moral norm (see Lemmens et al., 2009), and perceived risk (see Allen and Butler).

<table>
<thead>
<tr>
<th>Author (year)</th>
<th>Independent Variable</th>
<th>Mediator Variable</th>
<th>Moderator Variable</th>
<th>Dependent Variable</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen and Butler (1993)</td>
<td>Donor Knowledge</td>
<td>Perceived Risk</td>
<td></td>
<td>Intentions to Donate Blood</td>
<td>SEM</td>
</tr>
<tr>
<td>Lemmens et al. (2009)</td>
<td>Altruism</td>
<td>Moral Norm</td>
<td></td>
<td>Intentions to Donate Blood</td>
<td>Hierarchical multiple regression</td>
</tr>
<tr>
<td>Reid and Wood (2008)</td>
<td>• Attitude</td>
<td>• Time barrier</td>
<td>• Intentions to</td>
<td>MANOVA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Subjective norm</td>
<td>• Travel barrier</td>
<td>Donate Blood</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Perceived Control</td>
<td>• Needles barrier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disease barrier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher(s) and Year</td>
<td>Variables</td>
<td>Methodology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leigh, Bist and Alexe (2007)</td>
<td>Time barrier, Travel barrier, Needles barrier, Disease barrier</td>
<td>Increase The Number of Blood Donor</td>
<td>Focus Group</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*commit to user*
| Smed and Burnett | • Attitude Toward Advertising  
|                |   • Self Confidence  
|                |   • Advice seeking  
|                |   • Safety Consciousness  
|                |   • Social Extroversion  
|                |   • Sex Role Orientation  
|                |   • Religious Orientation  
|                |   • Child Centeredness  
|                |   • Health Concern  
|                |   • Altruism  
|                |   • Opinion Leadership  
|                |   • Social Consciousness  
|                |   • Cynicism  
|                |   • Duty Consciousness  
|                |   • Social involvement  
|                |   • Sex  
|                |   • Marital Status  
|                |   • Number of Children  
|                |   • Race  
|                |   • Education  
|                |   • Income  
|                |   • Occupation  
| • Time barrier  
| • Travel barrier  
| • Needles barrier  
| • Disease barrier  
| Do Donate Blood |
C. Observed Variables and Hypothesis

These part focuses on definition and relation among of observed variables.

Moreover, it is used to formulates the hypothesis as basis in constructing the model.
1. Altruism.

This variable has defined as self-sacrificing, empathizing with the needs of others, unselfish and a voluntary action that is performed without expectation of reward (see Hopkins and Powers, 2009). Previous studies have found that donors mentioned altruistic reasons for donating blood (see Newman and Pyne, 1997; Hopkins and Powers, 2009) and this variable is estimated could explain the intention to donate blood (see Smead and Burnett, 1981; Lemmens et al, 2009).

Previous study has examined this variable towards intention and the result indicated that altruism has positive correlation towards intention but only indirectly through moral norm (see Lemmens et al, 2009). In this study, altruism is considered directly effect toward intention. Consequently, the higher altruism the higher intentions to donate blood. So, the first hypothesis to be tested is:

**H1: The higher altruism, the higher intentions to donate blood**

Furthermore, previous study has found that altruism related to intention but only indirectly through moral norm. Being altruistic leads to stronger moral norms regarding donation (see Lemmens et al, 2009). So, higher moral norm is hoped more increase the intention while altruism higher. Hence, the following hypothesis was proposed:

**H2: The higher altruism, the higher moral norm**

Moreover, altruism is viewed has negative correlation to the perceived risk. These expression was based on logical view about conclusion of interview among donors (see appendix 1). Donors had the feeling as a personal responsibility and getting the desire to benefit someone else. In the other words, when the
individuals with altruism want to donate blood, they never mind the bad risk or negative consequence. The important thing why they want to do that is they can give benefits to someone or it is called sacrifice. So, in this study, altruism is expected to perform through perceived risk on the alternative model. The following hypothesis was proposed:

\[ H3: \text{Altruism is inversely related to their perceived risk of donating blood.} \]

2. Donor Knowledge.

Knowledge has been defined, conceptualized, and measured in various ways, although no commonly accepted definition or measure of knowledge exists (see Brucks, 1986). Previous study has examined this variable regarding the effects on intention to donate blood. Intuitively, it could be argued that a negative relationship should exist between individual’s knowledge and their perception of risk associated with giving blood. As individuals learn more, their perception of risk involved in the blood giving transaction should be reduced (see Allen and Butler, 1993). That study found the opposite to be true, apparently, the more donors know about the blood donation process, the more risk they perceive (see Allen and Butler, 1993)

Individuals facing a high risk situation tend to seek out information useful in reducing the negative consequences of a transaction (see Allen and Butler, 1993). In other words, as individuals gain knowledge, the tend to perceive less risk than do individuals without knowledge. In this study, it would be expected that donors more knowledgeable about the donation process would perceive less
risk in giving than those who are less knowledgeable. Therefore, the next hypothesis to tested is:

**H4: Donors’ knowledge is inversely related to their perceived risk of donating blood.**

Previous studies indicates that knowledge was a weak correlate of intentions to donate (see Lemmens et al, 2009) and knowledge does not directly influence donor’s intention (see Allen and Butler, 1993). It is doubtful that donors would intend to donate without knowledge of the associated risks. A donor’s knowledge level alone is, therefore, expected to be an insufficient explanatory variable of donor behavior (see Allen and Butler, 1993). On the basis of this research support, the following hypothesis is proposed:

**H5 : Donor’s knowledge will not directly affect their intentions to donate blood.**


A number of studies have extended the TPB when applying it to blood donation. For example, intentions may be shaped by a sense of moral obligation (see Lemmens, 2009) and both Armitage and Conner (2001) and Lemmens et al. (2005) found that moral norm increased the predictive power of the TPB in the context of blood donation.

Previous study indicates that moral norm work as mediation between altruism and intention. Moral Norm was statistically significant as mediation between altruism and intention. The results show that the effects of altruism on intention was reduced by almost 50% after including moral norm as predictor (see commit to user
Lemmens et al, 2009). In this study higher moral norm is hoped more increase the intention (see Lemmens et al, 2009). So, the following hypothesis is posited

H6: The higher moral norm, the higher intentions to donate blood

4. Perceived Risk.

Prior research has found that perceive risk is a factor for every individual’s intention to donate blood (see Allen and Butler, 1993). The individuals will learn and assessment the consequences by their experienced or the information about donate blood’s process by blood bank marketers (see Allen and Butler, 1993; Griffin and O’Cass, 2004). The dimensions of perceived risk to measures the intentions to donate blood consist of physical, psychological, social, and time risk (see Allen and Butler, 1993).

Results of the study by Lyle, et al (2009) indicates that there were significant differences between donors and non-donors regarding perceived risk. The donors are less concerned about the risk of a blood donation, while the non-donors are most concerned about the anticipated pain of gain of giving donation. Moreover, another study indicates that the higher intender group had less the perceived risk of donate blood (see Allen and Butler, 1993; Reid and Wood, 2008).

In the case of blood donation, if blood donors believe there are high levels of risk associated with giving, they should be less likely to give and inversely, if donors perceive little risk in donating, the likelihood of donation should increase. H7: Donor’s perceived risk of donating is inversely related to their intentions to donate blood.
D. Theoretical Model

Based on 7 formulated hypothesis, the relationship among variables is showed in a model that describe the process of correlation between altruism, moral norm, donor’s knowledge, perceived risk towards the intention to donate blood. (see figure 1.1).

The model explains the effects of altruism on intention to donate blood (H1), altruism on moral norm (H2), moral norm on intention to donate blood (H3), donor’s knowledge on perceived risk (H4), perceived risk on intention to donate blood (H5), donor’s knowledge on intention to donate blood (H6), and altruism on perceived risk (H7).
CHAPTER 3
RESEARCH METHODOLOGY

This chapter aims to explains the method that is used in this study. Include in resulting a valid and reliable data until the results of the data can be trust-worthy. It is important to discuss, because the collect data probably giving impact on bias respond, caused by the condition of respondent. Therefore, the data must be analyzed to make assurance about the truth data. So, to support the discussion, in this chapter is explained (1) research scope, (2) sampling and data collection method, (3) operational definition and research instrumental measurement, and (4) statistical analysis.

A. Research Scope

This study is categorized as explanatory research, because it is focused on relationship among of the variables. This relation is based on hypothesis that is formulated previously. Therefore, this study is expected to give justification in explaining the phenomenon of this study.

Data collection is cross sectional. Consequently, the model could not accommodate all of the phenomenon change that was caused by time passed. Therefore, to accommodate that change, it needs to adjustment the model according to the setting. Data is being collected through survey method that is guided by questionnaire. The technique is done by meeting the respondents and waiting them until they have finished to answers the questionnaire. This method is supposed to impact on the bias perception that was influenced by respond rate of respondent.

commit to user

17
Therefore, it needs reliability and validity tests to reduce this problem. So, the information from data collection result is also valid and reliable. In turn, the information can be trust-worthy from methodological aspects.

B. Data Collection and Sample

Population in this study is peoples who eligible to do donate blood in Surakarta, while the sample in this study is the people who have intention to donate blood for the first time. Data is collected by using purposive sampling method. This method was used because the chosen sample must understand about the research. There are some requirements that must be fulfilled by respondents:

1. The respondent must have intention to donate blood
2. The respondent have to know what the purpose of this research.
3. The respondent must have feeling to help others

That requirements are needed to avoid the respond biases that is caused by misunderstanding in perceiving the questionnaire.

Data sample size is 200 respondents. This quota is hoped to represent the population. Furthermore, it also hoped to fill the maximum likelihood and data quality of chosen statistical method i.e. Structural Equation Modeling (SEM).

C. Definition and Measurement

1. Altruism

Altruism is defined as some social behavior was unselfishly motivated to benefit others. Other study has defined altruism as a motivational state with the...
ultimate goal of increasing another’s welfare (see Batson, 1991). This variable consists of: (1) feel that helping others is reward, (2) feel proud when give benefit to others, (3) Feel good when helping others, (4) do donate blood, (5) offer to help a handicapped or elderly, (6) offer a seat to elderly stranger, (7) give money to a stranger who needed. This indicators was measured by likert scale that ranged from 1= totally agree until 5= totally disagree.

2. Moral Norm

Sense moral norm could shape the intention to donate blood and increased the predictive power of the TPB (see Parker et al., 1995; Armitage and Conner, 2001; and Lemmens et al., 2005). The indicators of moral norms consist of: (1) personal responsibility, (2) personal principle of life, (3) sense of guilty. This indicators was measured by likert scale that ranged from 1= totally agree until 5= totally disagree.

3. Donor’s knowledge

Knowledge about the blood donation was assessed using 6 items (e.g. ‘people with AIDS is not eligible do donate blood’, ‘drug user are not eligible do donate blood’, ‘Transients or street people are eligible do donate blood’, ‘Homosexuals and partners are not eligible do donate blood’, ‘blood bank does everything it can to ensure blood supply is safe’, ‘blood bank will give information to donor if they influence something infect disease’. This indicators was measured by likert scale that ranged from 1= totally agree until 5= totally disagree.
4. **Perceived Risk**

Following Cunningham (1967), perceived risk here refers to the importance donors attribute to the consequences of physical, psychological, social, and time risk. This indicators was measured by likert scale that ranged from 1= totally agree until 5= totally disagree.

5. **Intentions**

Three items measured the intention to become a blood donor (e.g. ‘I intend to give blood during next month). This indicators was measured by likert scale that ranged from 1= totally agree until 5= totally disagree.

D. **Statistical Analysis**

Statistical analysis is begun by validity and reliability test of the data. It aims to give assurance that the collected data is fulfilled the feasibility requirement to be tested by using all of kind statistical method. Therefore the result could figure the measured phenomenon.

1. **Validity Test**

Validity test aims to know the accuracy and the precision of a measurement tools in operating the measurement function. An instrument is supposed as high validity if it could give the result that appropriate to the purpose. Validity test consists of convergent validity and discriminant validity that can be viewed in loading factor (Malhotra, 1993). Convergent validity indicates the ability of indicant in measuring the construct that is shown by relatively big value of factor loading, whereas discriminant validity indicates...
inability of indicant in measuring the construct that is shown by relatively small value of factor loading.

In this study, factor analysis is statistical method that is supposed as relevant tool in measuring validity of data research (Malhotra, 1993). The analysis is based on an assumption that all of analyzed variable is independent as the function of laten variable. According to this analysis, the approach of this study is confirmatory factor analysis (CFA), that considers the observed variables as imperfect indicators from laten variable or another based construct.

2. Reliability Test

Beside of validity, reliability is also statistical test procedure that is supposed as relevant tools to measure the internal consistency of a research instrument. To understand the reliability, it could be explained by cronbach alpha coefficient. An instrument is categorized as reliable one, if that cronbach alpha is higher than 0.7 (Malhotra, 1993; Hair et al. 1998). Therefore, this procedure can give assurance that the data can be analyzed by using another statistical method. Following is choosing statistical method that is used to analyze the hypothesis.

3. Choosing of Statistical Method

Structural Equation Model (SEM) analysis is used to estimates some comparison regression that separated and have structural correlation. This analysis possible exists some dependent variable and likelihood would be independent variable for another dependent variables. This analysis aims to test causal correlation among variable, if one of the variable changed, so it could alteration on another variable. In this study, tabulation of data using AMOS versi 16.
E. Mediation Analysis

This analysis possible to estimates a set of structural comparison regression, interrelated, and multiple regression. The characteristic of this analysis are: (1) to estimates the correlation of mutually double dependent variables, (2) to accommodate a set of correlation between independent and dependent variables, (3) evaluates model capability in explaining the phenomenon (see Ghozali, 2005).

Based on previous research (Yen and Gwinner, 2003), there were three steps to analyze the mediation role. The first step analyzed the regression of three models (Fully Mediated Model, Partially Mediated Model, and Direct Effect Only Model). The second step compared the result from the models that has been analyzed. The third step examined four different criteria in an SEM model comparison based on:

a. Overall model fit as measured by CFI
b. Percentage of hypothesized significant paths;
c. Amount of variance explained as measured by squared multiple correlations (SMC)
d. Parsimony assessed by the parsimonious normed fit index (PNFI).

If one of the model has fulfilled most of the criterion than the others, that model was the most accurate to predict the relationship between the observed variables.
CHAPTER 4
DATA ANALYSIS AND DISCUSSION

This chapter aims to reveal the results of the analysis of research data and discussion. The discussion begins by explaining the descriptive statistics that aims to understand the profile of the respondents that used in this research. Next followed by a discussion of the research includes testing instrument of testing validity and reliability. This was done to ensure the research data that was retrieved, so its quality accountable scientifically. Then continued by an analysis of the criterion of goodness of fit model research and discussion. The last was explanation about the test result of Structural Equation Model (SEM), it aims to explain the relationships between variables that were hypothesized.

A. Descriptive Statistic Analysis

The description of responden’s data obtained based on descriptive statistic about sex, age, education, job, and social organization. And the entire results is explained below:
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>200</td>
<td>1</td>
<td>2</td>
<td>1.31</td>
<td>.464</td>
<td>1= Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1= 1= Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= Female</td>
</tr>
<tr>
<td>Age</td>
<td>200</td>
<td>1</td>
<td>4</td>
<td>1.43</td>
<td>.747</td>
<td>1= 17-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= 25-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3= 31-40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4= &gt;40</td>
</tr>
<tr>
<td>Education</td>
<td>200</td>
<td>1</td>
<td>4</td>
<td>1.33</td>
<td>.756</td>
<td>1= SHS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= D3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3= S1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4= S2</td>
</tr>
<tr>
<td>Job</td>
<td>200</td>
<td>1</td>
<td>3</td>
<td>1.20</td>
<td>.459</td>
<td>1= Student</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= Employee</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3= Lecturer</td>
</tr>
<tr>
<td>Social Organization</td>
<td>200</td>
<td>1</td>
<td>2</td>
<td>1.84</td>
<td>.368</td>
<td>1= Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= No</td>
</tr>
</tbody>
</table>

Source: primary data processed, 2011

The table IV.1 indicates that respondent’s gender in this research was male largely. Then, the age of the respondent was between 17-24 years old. It is because the researcher take the data in campus area that the largely people is the student and male student who want to donate their blood. It can be assessment as undeliberate moment that the researcher met random people who want to donate the blood on
donate blood charity. Thus, the blood banks marketer were advised to observe the behavior of individual that due to gender and age differences.

The largely respondent’s last education in this research was Senior High School. It was undeliberate moment, because the largely individual who want to donate the blood were students that had last education as senior high school student. Thus, the banks were advised to observe the behavior of individual who had last title as a senior high school student.

Based on the descriptive statistic above, it was indicate that the mean of the respondent’s experience in social organization largely the respondent was never involved in social organization. Thus, the banks were advised to observe the behavior of individual who never involved in social organization.

B. Data Quality

1. Validity

It aims to determine the accuracy of the test and measurement instrument in fulfilling functions of measurement (see Sekaran, 2006). In this study will use a test of validity by Confirmatory Factor Analysis (CFA) with the help of SPSS software for Windows, version 15, where each item of the question should have factor loading $>0.50$.

The techniques used was look at the output of rotated component matrix that it should to be extracted. If each item of the question that has not been fully extracted, the process of testing the validity with factor analysis should be repeated by eliminating the item of the question that has a double value.
The researchers conducted a deployment of pre-test to 30 respondents, while the results are as follows:

Table IV.2

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a1</td>
<td>.772</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a2</td>
<td>.843</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a3</td>
<td>.569</td>
<td>.857</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a5</td>
<td>.712</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a6</td>
<td>.516</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd1</td>
<td>.629</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd2</td>
<td>.730</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd3</td>
<td>.794</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd4</td>
<td>.897</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd5</td>
<td>.795</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pd6</td>
<td>.667</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nm1</td>
<td>.843</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nm2</td>
<td>.740</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nm3</td>
<td>.796</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nm4</td>
<td>.614</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr1</td>
<td>.874</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr2</td>
<td>.656</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr3</td>
<td>.830</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr4</td>
<td>.885</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n1</td>
<td>.825</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n2</td>
<td>.786</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n3</td>
<td>.851</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations.
Source: primary data processed, 2011

Based on the results of test validity in the table IV.2, the results were declared as valid because of each item of the question that it be an indicator of each variable has been fully extracted and has a factor loading $\geq 0.50$.
2. Reliability

Reliability is a statistical testing procedure that is considered relevant to measure the level of reliability or internal consistency of the research instrument. To test reliability, it used \textit{Cronbach alpha} by \textit{SPSS for windows 15}. \textit{(see Sekaran, 2006)} says that the \textit{Cronbach alpha’s} value can be said to be a reliable if the value is \textgreater{}0.60. Furthermore, the reliability level is divided into three criteria as follows: if \textit{alpha or r count} (1) 0.8-1.0 = Reliability is good, (2) 0.60-0.79 = Reliability is received, (3) Less than 0.60 = poor reliability. Thus, this testing procedure can provide assurance that the data meets the eligibility criteria that will be analyzed using other statistical methods. Here is the reliability test results:

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
\textbf{Variabel} & \textbf{Cronbach’s Alpha} \\
\hline
Altruism & .822 \\
Donor’s Knowledge & .859 \\
Moral Norm & .823 \\
Perceive Risk & .867 \\
Intention & .866 \\
\hline
\end{tabular}
\caption{The Test Results of Reliability}
\end{table}

\textit{Source: primary data processed, 2011}

Based on the results of reliability test as shown in table IV.3 above, it can be concluded that the indicators/ instruments of the five latent variables examined in this study can be declared as reliable.

C. Data Research Analysis

The number of the respondents in this study are 200 respondents. The number of samples is a qualified respondents in answering the questionnaire provided. The amount is also deemed to comply, because the minimum sample size for studies that
use statistical tools *Structural Equation Modelling* (SEM) of 5-10 observations for each parameter estimated. The number of parameters that are used in this study, 23, so it is recommended that the minimum number of samples 23 x 5 = 115 samples. SEM analysis methods used with the procedure *Maximum Likelihood* (ML) is between 100-200.

1. **Normality Test**

The Conditions that must be met in addition to the adequacy of the sample in the SEM analysis using data normality. The Statistic values to test normality using z-value (*Critical Ratio* or CR in output of Amos 16.0) from the values of *skewness* and *kurtosis* distribution data. If the C.R value is greater than the critical value, it can be presumed that the data distribution is not normal. The critical value for C.R skewness and C.R kurtosis values below ± 2.58. More results are as follows:

**Table IV.4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>min</th>
<th>max</th>
<th>skew</th>
<th>c.r.</th>
<th>kurtosis</th>
<th>c.r.</th>
</tr>
</thead>
<tbody>
<tr>
<td>n3</td>
<td>3.000</td>
<td>5.000</td>
<td>-.406</td>
<td>-2.342</td>
<td>-.691</td>
<td>-1.996</td>
</tr>
<tr>
<td>n2</td>
<td>3.000</td>
<td>5.000</td>
<td>-.283</td>
<td>-1.632</td>
<td>-.811</td>
<td>-2.342</td>
</tr>
<tr>
<td>n1</td>
<td>3.000</td>
<td>5.000</td>
<td>-.411</td>
<td>-2.375</td>
<td>-.676</td>
<td>-1.953</td>
</tr>
<tr>
<td>pd1</td>
<td>3.000</td>
<td>5.000</td>
<td>-.526</td>
<td>-3.036</td>
<td>-.633</td>
<td>-1.828</td>
</tr>
<tr>
<td>pd2</td>
<td>3.000</td>
<td>5.000</td>
<td>-.529</td>
<td>-3.054</td>
<td>-.625</td>
<td>-1.806</td>
</tr>
<tr>
<td>pd3</td>
<td>2.000</td>
<td>5.000</td>
<td>-.566</td>
<td>-3.267</td>
<td>.125</td>
<td>.361</td>
</tr>
<tr>
<td>pd4</td>
<td>3.000</td>
<td>5.000</td>
<td>-.443</td>
<td>-2.557</td>
<td>-.700</td>
<td>-2.022</td>
</tr>
<tr>
<td>pd5</td>
<td>3.000</td>
<td>5.000</td>
<td>-.472</td>
<td>-2.724</td>
<td>-.697</td>
<td>-2.013</td>
</tr>
<tr>
<td>pd6</td>
<td>3.000</td>
<td>5.000</td>
<td>-.461</td>
<td>-2.662</td>
<td>-.660</td>
<td>-1.906</td>
</tr>
<tr>
<td>pr1</td>
<td>1.000</td>
<td>3.000</td>
<td>.324</td>
<td>1.871</td>
<td>1.018</td>
<td>2.939</td>
</tr>
<tr>
<td>pr2</td>
<td>1.000</td>
<td>3.000</td>
<td>.351</td>
<td>2.027</td>
<td>.732</td>
<td>2.113</td>
</tr>
<tr>
<td>pr3</td>
<td>1.000</td>
<td>3.000</td>
<td>.377</td>
<td>2.179</td>
<td>.991</td>
<td>2.860</td>
</tr>
<tr>
<td>pr4</td>
<td>1.000</td>
<td>3.000</td>
<td>.291</td>
<td>1.680</td>
<td>.997</td>
<td>2.877</td>
</tr>
<tr>
<td>nm1</td>
<td>2.000</td>
<td>5.000</td>
<td>-.618</td>
<td>-3.566</td>
<td>-.021</td>
<td>.059</td>
</tr>
<tr>
<td>nm2</td>
<td>3.000</td>
<td>5.000</td>
<td>-.431</td>
<td>-2.487</td>
<td>-.664</td>
<td>-1.918</td>
</tr>
<tr>
<td>Variable</td>
<td>min</td>
<td>max</td>
<td>skew</td>
<td>c.r.</td>
<td>kurtosis</td>
<td>c.r.</td>
</tr>
<tr>
<td>----------</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>nm3</td>
<td>3.000</td>
<td>5.000</td>
<td>-.346</td>
<td>-1.999</td>
<td>-.726</td>
<td>-2.097</td>
</tr>
<tr>
<td>nm4</td>
<td>3.000</td>
<td>5.000</td>
<td>-.320</td>
<td>-1.849</td>
<td>-.667</td>
<td>-1.925</td>
</tr>
<tr>
<td>a1</td>
<td>3.000</td>
<td>5.000</td>
<td>-.133</td>
<td>-1.765</td>
<td>-1.164</td>
<td>-3.359</td>
</tr>
<tr>
<td>a2</td>
<td>3.000</td>
<td>5.000</td>
<td>-.311</td>
<td>-1.797</td>
<td>-.928</td>
<td>-2.678</td>
</tr>
<tr>
<td>a3</td>
<td>3.000</td>
<td>5.000</td>
<td>-.495</td>
<td>-2.857</td>
<td>-.645</td>
<td>-1.861</td>
</tr>
<tr>
<td>a4</td>
<td>3.000</td>
<td>5.000</td>
<td>-.138</td>
<td>-.795</td>
<td>-.861</td>
<td>-2.487</td>
</tr>
<tr>
<td>a5</td>
<td>3.000</td>
<td>5.000</td>
<td>-.171</td>
<td>-.985</td>
<td>-1.160</td>
<td>-3.349</td>
</tr>
<tr>
<td>a6</td>
<td>3.000</td>
<td>5.000</td>
<td>-.538</td>
<td>-3.107</td>
<td>-.638</td>
<td>-1.842</td>
</tr>
<tr>
<td>Multivariate</td>
<td>18.606</td>
<td>3.880</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data processed, 2011

According to the results of testing for normality in the table IV.4 were obtained that in univariate there were eight items that indicated not normally distributed because it has a value of C.R> 2.58, but its don't have C.R skewness and C.R kurtosis values that > 2.58. The Testing of normality in multivariate was 3.880> 2.58 which indicates that the data in this study are not normally distributed in multivariate. Because the data are not normally distributed, so the outlier testing was required. The Outlier test results will be discussed next.

2. **Outlier Test**

Outlier is an observation that comes with extreme values which has unique characteristics that are very different from other observations and appear as extreme value both for single variables and combinations of variables. In a multivariate analysis, the outliers can be tested by chi-square statistic \( \chi^2 \) towards mahalanobis distance squared value at the 0.01 significance level with degrees of freedom as many as number of variables that used in research or in the univariate can be seen by looking at the value of p1 and p2, with the provision if probability value> 0.05 then the observations data was said did not have outlier problems.
Table IV.5

Outlier Test Result

<table>
<thead>
<tr>
<th>Observation Number</th>
<th>Mahalanobis d-squared</th>
<th>p1</th>
<th>p2</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>52.413</td>
<td>.000</td>
<td>.084</td>
</tr>
<tr>
<td>22</td>
<td>41.920</td>
<td>.009</td>
<td>.554</td>
</tr>
<tr>
<td>76</td>
<td>40.611</td>
<td>.013</td>
<td>.488</td>
</tr>
<tr>
<td>18</td>
<td>39.583</td>
<td>.017</td>
<td>.447</td>
</tr>
<tr>
<td>87</td>
<td>38.272</td>
<td>.024</td>
<td>.518</td>
</tr>
<tr>
<td>21</td>
<td>38.011</td>
<td>.025</td>
<td>.398</td>
</tr>
<tr>
<td>30</td>
<td>37.234</td>
<td>.031</td>
<td>.417</td>
</tr>
<tr>
<td>70</td>
<td>36.140</td>
<td>.040</td>
<td>.547</td>
</tr>
<tr>
<td>6</td>
<td>36.105</td>
<td>.040</td>
<td>.414</td>
</tr>
<tr>
<td>97</td>
<td>36.004</td>
<td>.041</td>
<td>.312</td>
</tr>
<tr>
<td>142</td>
<td>35.580</td>
<td>.045</td>
<td>.301</td>
</tr>
<tr>
<td>176</td>
<td>35.557</td>
<td>.046</td>
<td>.207</td>
</tr>
<tr>
<td>88</td>
<td>35.516</td>
<td>.046</td>
<td>.137</td>
</tr>
<tr>
<td>98</td>
<td>34.267</td>
<td>.061</td>
<td>.346</td>
</tr>
<tr>
<td>10</td>
<td>34.001</td>
<td>.065</td>
<td>.324</td>
</tr>
<tr>
<td>103</td>
<td>33.795</td>
<td>.068</td>
<td>.290</td>
</tr>
</tbody>
</table>

Source: primary data processed, 2011

Based on the table IV.5 can be seen, there were indications of 13 observation values that meet the outlier because of having probability values <0.05. The provision requirements have been stated a number of observation being outliers when the number of observations, has a probability p1 and p2 are both <0.05. Whereas if the number of observations have only one course of probability <0.05 (the probability of them not <0.05) indicate outliers still acceptable.

Based on the test results in the table IV.5, no one of all the number of observations having problems outlier (it has no probability p1 and p2 values below 0.05). So, in this study there is no observations that having outlier problem.

3. Model Fit Analysis

Assessing the model fit is complex and requires the most attention. An index that shows that the model fit does not provide assurance that the model really
fit. In contrast, the fit indices, which concluded that this model is very bad, do not provide assurance that the model really does not fit. In SEM, the researcher should not only rely on a single index or multiple indexes fit, but the consideration of the entire index should fit.

The following are the results of testing the suitability index and cut-off value for use in testing whether a model can be accepted or rejected. Based on the results of testing using AMOS 16 was obtained the results of goodness of fit as follows:

<table>
<thead>
<tr>
<th>Goodness-of-fit Indices</th>
<th>Cut-off Value Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>Diharapkan kecil</td>
<td>536,977</td>
<td>Not Fit</td>
</tr>
<tr>
<td>Probabilitas Chi Square (p)</td>
<td>≥ 0,05</td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2,00-3,00</td>
<td>2,408</td>
<td>Fit</td>
</tr>
<tr>
<td>Adjusted goodness of fit index (AGFI)</td>
<td>≥ 0,90</td>
<td>0,763</td>
<td>Not Fit</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>≥ 0,95</td>
<td>0,781</td>
<td>Not Fit</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>≥ 0,95</td>
<td>0,752</td>
<td>Not Fit</td>
</tr>
<tr>
<td>Root mean square error approximation (RMSEA)</td>
<td>≤ 0,08</td>
<td>0,084</td>
<td>Not Fit</td>
</tr>
</tbody>
</table>

Source: primary data processed, 2011

The following table shows a summary of the results was obtained in the study and recommended values for the measure the fit of the model. As shown in the table above, the probability value of the chi-square is 0.000 < 0.05, CMIN/DF value is 2,408 < 2,00-3,00, Adjusted goodness of fit index (AGFI) value is 0.763 < 0.90 Comparative fit index (CFI) value is 0.781 < 0.95, Tucker-Lewis Index (TLI) is 0.752 < 0.95, and Root mean square error approximation (RMSEA) is 0.084 < 0.08. As the main requirement model of ML (maximum likelihood) is the expected value of chi-square will small or the probability value of chi-square > 0.05, if it does not fit or not
met then the next step the model should be modified to obtain the results of *goodness-of-fit* for better or complete.

Because of the *goodness of fit* was still not met then the next step was re-estimated the model. The steps to re-estimate the model by looking at the factor loading of each instrument (indicator) with the provisions if the value of the loading factor <0.5, the indicator should be dropped. The results further indicate that there are two items that have a load factor value <0.5 is pd1, and pd5, so the item would be dropped:

![Table IV.7](image)

<table>
<thead>
<tr>
<th>Item</th>
<th>Variable</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a6</td>
<td>ALTRUISM</td>
<td>.538</td>
</tr>
<tr>
<td>a5</td>
<td>ALTRUISM</td>
<td>.811</td>
</tr>
<tr>
<td>a4</td>
<td>ALTRUISM</td>
<td>.503</td>
</tr>
<tr>
<td>a3</td>
<td>ALTRUISM</td>
<td>.518</td>
</tr>
<tr>
<td>a2</td>
<td>ALTRUISM</td>
<td>.539</td>
</tr>
<tr>
<td>a1</td>
<td>ALTRUISM</td>
<td>.843</td>
</tr>
<tr>
<td>nm4</td>
<td>Moral_Norm</td>
<td>.561</td>
</tr>
<tr>
<td>nm3</td>
<td>Moral_Norm</td>
<td>.549</td>
</tr>
<tr>
<td>nm2</td>
<td>Moral_Norm</td>
<td>.509</td>
</tr>
<tr>
<td>nm1</td>
<td>Moral_Norm</td>
<td>.697</td>
</tr>
<tr>
<td>pr4</td>
<td>Perceived_Risk</td>
<td>.792</td>
</tr>
<tr>
<td>pr3</td>
<td>Perceived_Risk</td>
<td>.673</td>
</tr>
<tr>
<td>pr2</td>
<td>Perceived_Risk</td>
<td>.536</td>
</tr>
<tr>
<td>pr1</td>
<td>Perceived_Risk</td>
<td>.693</td>
</tr>
<tr>
<td>pd6</td>
<td>Donor's_Knowledge</td>
<td>.637</td>
</tr>
<tr>
<td>pd5</td>
<td>Donor's_Knowledge</td>
<td>.445</td>
</tr>
<tr>
<td>pd4</td>
<td>Donor's_Knowledge</td>
<td>.895</td>
</tr>
<tr>
<td>pd3</td>
<td>Donor's_Knowledge</td>
<td>.585</td>
</tr>
<tr>
<td>pd2</td>
<td>Donor's_Knowledge</td>
<td>.568</td>
</tr>
<tr>
<td>pd1</td>
<td>Donor's_Knowledge</td>
<td>.371</td>
</tr>
<tr>
<td>n1</td>
<td>Intention</td>
<td>.707</td>
</tr>
<tr>
<td>n2</td>
<td>Intention</td>
<td>.705</td>
</tr>
<tr>
<td>n3</td>
<td>Intention</td>
<td>.647</td>
</tr>
</tbody>
</table>

*Source: primary data processed, 2011*
Because of pd1, and pd5 have been reduced or dropped, then the structural model research for items pd1 and pd5, must be removed or not included in subsequent testing. Re-model estimation results show that the goodness of fit value increased but the goodness of fit values still shows a value that did not fit, so the model must be modified for goodness of fit requirements could complete.

Since the model previously declared incompatible, so the modification of the model should be done by connecting the indicator value of measurement error through “modification indices”. Complete model was modified as follows:

The entire results of the structural modification model in the picture above would be explained by the following table:

Table IV.8

<table>
<thead>
<tr>
<th>Goodness-of-Fit Indices</th>
<th>Cut-off Value</th>
<th>Model Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>Diharapkan kecil</td>
<td>179,111</td>
<td>Fit</td>
</tr>
<tr>
<td>Probabilitas Chi Square (p)</td>
<td>( \geq 0.05 )</td>
<td>0.059</td>
<td>Fit</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>( \geq 2.00-3.00 )</td>
<td>1,186</td>
<td>Fit</td>
</tr>
<tr>
<td>Adjusted goodness of fit index (AGFI)</td>
<td>( \geq 0.90 )</td>
<td>0.889</td>
<td>Marginal</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>( \geq 0.95 )</td>
<td>0.979</td>
<td>Fit</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>( \geq 0.95 )</td>
<td>0.971</td>
<td>Fit</td>
</tr>
<tr>
<td>Root mean square error approximation (RMSEA)</td>
<td>( \leq 0.08 )</td>
<td>0.031</td>
<td>Fit</td>
</tr>
</tbody>
</table>

Source: primary data processed, 2011

The table IV.8 shows a summary of the results obtained in the study and recommended values for the measure of model fit. As shown in the table above, chi-square value must be fit (probability value \( > 0.05 \)) met with a probability value 0.059 \( > 0.05 \), and followed by measurements of model fit which have been declared as fit. In total six measurement s revealed goodness of fit model as fit (five measurements of fit, only one measurement marginal).
D. Mediation Analysis

Mediation analysis is used to reveal the influence of mediating the relationship between variables in this research. The mediation effects that will be analyzed in this research are the comparison between fully mediated model, partially mediated model, and direct effect only model which is mediated by satisfaction and trust (see Figure III. 1).

Table IV.9 was showed the comparison of direct effect only model, partially mediated model, and fully mediated model.

<table>
<thead>
<tr>
<th>Dependent Variable: Moral Norm</th>
<th>Fully Mediated Model</th>
<th>Partially Mediated Model</th>
<th>Direct Effect Only Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altruism → Moral Norm</td>
<td>.523***</td>
<td>.464***</td>
<td>-</td>
</tr>
</tbody>
</table>

**Dependent Variable: Perceived Risk**

<table>
<thead>
<tr>
<th></th>
<th>Fully Mediated Model</th>
<th>Partially Mediated Model</th>
<th>Direct Effect Only Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor’s Knowledge → Perceived Risk</td>
<td>-.280*</td>
<td>-.217</td>
<td>-</td>
</tr>
<tr>
<td>Altruism → Perceived Risk</td>
<td>-</td>
<td>-.124</td>
<td>-</td>
</tr>
</tbody>
</table>

**Dependent Variable: Intention**

<table>
<thead>
<tr>
<th></th>
<th>Fully Mediated Model</th>
<th>Partially Mediated Model</th>
<th>Direct Effect Only Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altruism → Intention</td>
<td>-</td>
<td>181</td>
<td>.276**</td>
</tr>
<tr>
<td>Moral Norm → Intention</td>
<td>.792***</td>
<td>.607***</td>
<td>.597***</td>
</tr>
<tr>
<td>Donor’s Knowledge → Intention</td>
<td>-</td>
<td>.232**</td>
<td>.246***</td>
</tr>
<tr>
<td>Perceived Risk → Intention</td>
<td>-.285***</td>
<td>-.239***</td>
<td>-.245***</td>
</tr>
</tbody>
</table>

$chi^2$ for Moral Norm = 548.084, $chi^2$ for Perceived Risk = 179.111, $chi^2$ for Intention = 563.076

Notes: * p < .05; ** p < .01; *** p < .001
Source: primary data processed, 2011

Furthermore, to comparing the result from models which has been analyzed as reported in Table IV. 9, both models fit the data appropriately. A difference $chi^2$ test indicates significant difference between the fully-mediated model...
and the partially mediated model ($\chi^2$ difference = 368.973, df = 75, $p \geq .05$). Partially mediated model had smaller chi-square value than others, so it was indicated that partially better than fully and direct mediated model.

Then, examining the mediated models based on four different criteria. It was found that the partially mediated model to be a better representation of the data, because the partially mediated was be the single model that fulfilled all of the different criteria. First, fully mediated model have CFI = .979 and GFI = .927. Second, all of percentage of hypothesized paths was resulted a significant value, here was the different with fully mediated model that was not found a percentage of hypothesized significant paths. Third, the ability of the models to explain variance in the outcomes, as measured by squared multiple correlations (SMC). SMC of partially mediated model were SMC for moral norm = .165, SMC for perceived risk = .023 and SMC for intention = .471. Fourth, according to Table IV. 8, there was a parsimony difference between the full and partial mediation models. The higher PNFI of the theoretical model suggests that the partially mediated model provides a better fit for the data.

In summary, it is asserted that the partially mediated model is a more accurate and useful depiction of the relationships among these constructs.

E. Hypothesis Test

The causality analysis was conducted to determine the relationship between variables. In this study are expected in the presence of causality testing can determine the effects that occur between the exogenous variables with endogenous variables. The result of the relationship shown as follow:
Figure IV.1

Hypothesis Test

Source: primary data processed, 2011

* : Significance level 0.01 (1%)
** : Significance level 0.05 (5%)
***: Significance level 0.001
The full results of each relationship would explained on the table as follows:

**Table IV.10**

<table>
<thead>
<tr>
<th>Variable Relationship</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral_Norm ---&gt; ALTRUISM</td>
<td>.385</td>
<td>.131</td>
<td>2.934</td>
<td>.003</td>
</tr>
<tr>
<td>Perceived_Risk ---&gt; ALTRUISM</td>
<td>-.180</td>
<td>.125</td>
<td>-1.441</td>
<td>.150</td>
</tr>
<tr>
<td>Perceived_Risk ---&gt; Donor's_Knowledge</td>
<td>-.127</td>
<td>.111</td>
<td>-1.141</td>
<td>.254</td>
</tr>
<tr>
<td>Intention ---&gt; Moral_Norm</td>
<td>.482</td>
<td>.133</td>
<td>3.628</td>
<td>***</td>
</tr>
<tr>
<td>Intention ---&gt; Perceived_Risk</td>
<td>-.209</td>
<td>.060</td>
<td>-3.474</td>
<td>***</td>
</tr>
<tr>
<td>Intention ---&gt; ALTRUISM</td>
<td>.303</td>
<td>.130</td>
<td>2.336</td>
<td>.019</td>
</tr>
<tr>
<td>Intention ---&gt; Donor's_Knowledge</td>
<td>.163</td>
<td>.074</td>
<td>2.214</td>
<td>.027</td>
</tr>
</tbody>
</table>

*Source: primary data processed, 2011*

**F. Discussion**

Based on the results of causality testing using AMOS 16 to test the structural relationship model, the results obtained as follow:

H1: *The higher altruism, the higher intentions to donate blood.*

The first findings in this study suggests altruism has a significant positive effect on intention, because it has a probability value 0.019 < 0.05. Thus, the first hypothesis in this study is supported.

The test results provided support to the phenomenon of positive relationship that found in previous studies (see Lemmens et al, 2009). In their study, Lemmens et al explained that there were positive relationships between *Altruism and Intention to donate blood*. Nevertheless, these findings still need further testing to improve the generalization theory in different contexts.

The findings in this study suggests that altruism is owned by an individual was expected to grow the intention or desire to do social activities like donate blood. donor blood. It was gives an understanding about the need for the formation of
character or soul voluntarily to the community. The Stimulus was recommended to repair or build a spirit of altruism was to make training and humanitarian organizations associated with. Through that stimulus, altruism is expected to be improved so the desire to help other people will increase.

**H 2** : *The higher altruism, the higher moral norm*

The results of these second findings in this study suggests that altruism has a significant positive effect on moral norms, because it has a probability value $0.003 < 0.05$. So in this context, the second hypothesis is supported.

The test results provided support to the phenomenon of positive relationship that found in previous studies (see Lemmens *et al*, 2009). In their study, Lemmens *et al* explained that there were positive relationships between *Altruism and Moral Norm*. Nevertheless, these findings still need further testing to improve the generalization theory in different contexts.

The findings in this study suggests that the nature of altruism that is owned by an individual is expected to form a sense of moral norms in a person. It was gives an understanding of the need for the formation of character or soul voluntarily to the community or individuals who will form the moral norm in the individual. The recommended stimulus to repair or build a spirit of altruism was the moral education in family environment, conducted by faculty and community environment that involves parents to teach social norms to children and adolescents. Through the stimulus, altruism is expected to be improved so that the desire to help other people will also rise.

**H 3** : *Altruism is inversely related to their perceived risk of donating blood.*
The results of the hypothesis in this study was not proven, which it was suggests that altruism did not has an significant effect to perceived risk with probability value was $0.150 > 0.05$. So, this hypothesis is not supported.

The results of this study indicated that a person who has high concern to the others, would thinking about the risks that exist in the donate blood. It indicates that the interview among several donors is not supported. It occured for some reason. Although the people willing to donate their blood and have altruistic behavior, they decided would consider the risk about donate blood.

**H4 : Donors’ knowledge is inversely related to their perceived risk of donating blood.**

The results of fourth hypothesis in this study was not proven, which it was suggests that donor’s knowledge did not has an significant effect to perceived risk with probability value was $0.254 > 0.05$. So, this hypothesis is not supported.

The findings in this study in accordance with the results of Allen and Butler (1993). The result of the study explains that the donor’s knowledge had no effect on a perceive risk. Thus, the perceived risk of individuals not affected by donor’s knowledge.

These results provide insight to the perpetrators of social activities in attracting the intention of donate blood in a community that the knowledge about the donors who presented to the public did not significantly affect the perception of risk in donate blood.
H 5 :  *Donors' knowledge will not directly affect their intentions to donate blood.*

The results of these findings in this study suggests that *donor’s knowledge* has a positive effect significantly on *intention*, it has a probability value $0.027 < 0.05$. So, this hypothesis is not supported.

The results of this study possibly because of the knowledge acquired by an individual donor was about the benefits when donating their blood, as well as knowledge of social care also affect a person’s intention to donate blood.

It gives comprehension that the higher of donor’s knowledge about blood donation, the higher the intention to donate blood.

H 6 :  *The higher moral norm, the higher intentions to donate blood*

The results of these third findings in this study suggests that *moral norm* has a significant effect on *intention*, it has a probability value $0.000 > 0.05$. So, the third hypothesis was supported.

The test results was significant and it was provide a support to the phenomenon of positive relationship in previous studies (see Lemmens *et al*, 2009). In their study, Lemmens *et al* explained that there were positive relationships between *Moral Norm and Intention to donate blood*. Nevertheless, these findings still need further testing to improve the generalization theory in different contexts.

The findings in this study suggests that the sense of *moral norms* in people were expected to establish a person's intention to conduct blood donation. It gives an understanding that individuals who have a sense of *moral norm* will always do somethings in accordance with moral norms. It was recommended to increase or build
the spirit of moral norms as an explanation on the previous hypothesis, which the role of families and communities would be necessary to build a sense of moral norms. Through the stimulus, Moral Norm was expected to be improved, so the desire to help other people would also increase.

**H 7 : Donor’s perceived risk of donating is inversely related to their intentions to donate blood.**

The results of these findings in this study suggests that perceived risk has a negative effect significantly on intention, it has a probability value 0.000 < 0.05. So, this hypothesis is supported.

This phenomenon can occur because of potential donors who might be considered about low risk in donate blood, so make an intention to donate blood. It gives an implications for social marketers in order to increase blood donor intentions, they should convey that the donate blood not require a long time, then make a healthy and did not make the body sick or weak, and can also be done by designing another stimulus that can increase the intentions.

Furthermore, the results of the test theoretically support the findings of previous studies, that suggests there was a positive and significant relationship of perceive risk on the intention to donate (see Allen and Butler, 1993).
CHAPTER 5
SUMMARY AND IMPLICATION

A. Summary

According to the results of hypothesis testing and discussion in this study, the conclusions could be explained as follows:

The first hypothesis in this study suggests that altruism has a significant positive effect on intention. Higher altruism in an individual would effect to increase an intention to donate blood. People will do donate blood to help others if that people has a sense of altruism. It because the people with altruism automatically would do anything to give benefits to others who need some help and so the sense of moral norm. Then, the perceived risk would always involve into donors intention as consideration although they have altruism. So, sense of altruism and moral norm must be present in personality of donors.

B. Implication

Based on the conclusions and limitations during the process in this study, the researcher would like to make some suggestions that are expected to provide input for the volunteers who involved in the Red Cross of Surakarta and for further research:

1. Social marketers have to place more emphasis on learning to the communities about variables studied, namely: altruism, perceive risk, and moral norms. The volunteers in educating the community should be more frequently provide training on voluntary mutual aid or without conditions, then the delivery of
information about blood donation in which the public should know how long do
the donors, the benefits of doing blood donate and other risks that are different
from the assumptions of the community about blood.

2. For further research are expected to complement the limitations in this study,
including:

a. The development of the variables investigated about donor’s blood intentions
not only about the activity of altruism, and the donor’s knowledge, but both
variables can be developed extensively in the search for other reviews which
may create an increase the donor’s blood intentions.

b. Increasing the sample exceed 200 eligible donors, so hopefully the results
achieved can be optimized and can reveal the reality in accordance with the
conditions in the field (close to the conditions of the reality in the field).