INTENTION TO DONATE KIDNEY IN INDONESIA: THE ROLE OF FINANCIAL INCENTIVE, PERCEIVED RISK, AND ALTRUISM

Elsa Adelia Nurrachma, Budhi Haryanto, Nurmadi Harsa Sumarta
Faculty of Economic and Business Universitas Sebelas Maret
cacaelsa@yahoo.com, *budhiharyanto@yahoo.com*, nurmadi@gmail.com

Abstract. This study aims to explore individual motivations to donate kidney in the context of humanity-oriented marketing. It was aimed to understand the influences of financial incentive and perceived risk in the decision of donating kidney. This study tried to specify the kidney donors into altruistic and unrelated kidney donor type, where previous study tends to generalize the behavior of all kidney sources. This study also tries to test the moderating role of altruism, because kidney donation is an act that's driven by humanity values. Using non-probability sampling, survey method with online questionnaires, the samples consist of 101 out of 125 obtained data from 545 contacted potential donors in Kidney Donor Indonesia Facebook community. To analyze the data, this study use Structural Equation Modeling with Smart Partial Least Square (PLS) 3 Software. The result indicates that altruism moderates the behavior of kidney donors because the consideration of kidney donor's in high and low altruism group found to have differences. Health authorities and related institutions that runs the kidney donation program can use the presented findings to create a better strategy in promoting kidney donation and increasing the awareness of potential market in Indonesia. Further, to understood the perception and consideration of kidney donor in donating their organ.

Keywords: perceived risk, financial incentive, kidney donation, intention to donate, altruism

Abstrak. Studi ini bertujuan untuk menyelidiki motivasi seseorang untuk mendonasikan ginjalnya dalam konteks pemasaran yang berorientasi pada kemanusiaan. Penelitian ini mencoba untuk menganalisis pengaruh dari insentif dan persepsi risiko dalam keputusan seseorang untuk mendonasikan ginjalnya, secara spesifik, melalui sumber donor ginjal yang berasal dari tipe pendonor altruistik dan tak berhubungan, Penelitian ini menggunakan *non-probability sampling*, dengan metode survei melalui kuesioner secara *online*. Sampel penelitian terdiri atas 101 responden dari total 125 responden yang didapatkan dari 545 kontak pendonor potensial di Komunitas Donor Ginjal Indonesia di *platform* Facebook. Untuk menganalisis data, penelitian ini menggunakan *Structural Equation Modeling* dengan program *Smart Partial Least Square* (PLS) 3. Hasil penelitian mengindikasikan bahwa altruisme memoderasi perilaku donor ginjal, hal ini dikarenakan pertimbangan dalam donasi ginjal baik dalam grup pendonor altruisme rendah atau tinggi memiliki perbedaan. Instansi kesehatan dan pihak-pihak terkait terkhusus yang menjalankan program donasi ginjal dapat menggunakan hasil penelitian ini untuk membuat suatu strategi terpadu yang dapat meningkatakan kesadaran pendonor potensial di Indonesia. Lebih jauh, untuk mendalami persepsi dan pertimbangan pendonor dalam mendonasikan organnya.

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Kata kunci: persepsi risiko, insentif, donasi ginjal, niat donor ginjal, altruism

INTRODUCTION

Chronic/End Stage Kidney Disease (ESKD) had increased exponentially in all over the world (Al Rahbi and Al Salmi, 2017) including in Indonesia (Marcelino *et al.*, 2017), where there are more than 200.000 people suffering from kidney disease each year due to the low concern on lifestyles and health (Anna, 2013). A sustain growth in the number of people who suffers from kidney disease causing the increase in the demand of kidney for transplantation. However, the demand has exceeds the supply of organ, creating a gap between demand and supply and led to a shortage in regional kidney supply (Barlow, 2017). According to Maiorano and Schena (2008) kidney donation is a one way to reduce the problem of organ shortage. This program works through meeting the demands and supplies of the kidney, while also running its function by increasing the supplies of organs in the market.

There are three distinct points that this study offers, among of these are (1) Studying people willingness to donate their kidney in living donation where previous studies tends to generalize all type of sources into one type of population, hence, in this study its specified into unrelated and altruistic donation source, (2) Conducting the study on online KDI (Kidney Donor Indonesia), Facebook community, the data is expected to be able to reflect Indonesia as a population, (3) Using altruism as moderation variable, previous research have not yet analyze the role of altruism in kidney donation topic, therefore, this study tries to study on how humanity motives determine personal consideration in donating kidney.

As a high involvement decision, the concept of kidney donation is based upon three main sequences of belief, evaluation, and behavior (Horton and Horton, 1990, 1991; Ajzen, 1991; Assael, 2001). Belief as the first and the independent variable consist of perceived risk and incentive. These variables reflect personal's motivation and consideration in performing unrelated and altruistic donation, which includes the trade-off between risk and benefits. Perceived risk reflects the consideration of consequences, while financial incentive represents the benefit from the donation. As for the evaluation base, individual's attitude to donate kidney is used to reflect personal feeling towards the act of kidney donation. In accordance with Assael (2001) belief influence attitude and in turn, attitude will affect individual intention, the main variable of intention to donate kidney organ is the behavioral component of this research (Horton and Horton, 1991) and work as a predictor of future behavior in donating kidney (Assael, 2001).

The research limits the categorization of kidney donor into "altruistic donor" – where the person donates its kidney to an unknown recipient, and "unrelated donor" type – unrelated by blood or marriage but the recipient is will be/already known by the donor. It is chosen to estimate the significance of altruism in influencing someone's willingness to donate their kidney on voluntary source. In this study, the variable of altruism is used as moderating variable, this variable reflect as the value of humanity which carried by individual. A characteristic that makes a person to be more concerned about the well-being

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

of other or have selfless trait, in this research the concern is related to the people that suffer from chronic/end-stage kidney disease and associated with kidney donation program.

Limited kidney transplantation due to disparity between the demand and supply is a global phenomenon. As stated by Barlow (2017) that kidney donation program is a one way to reduce the organ shortage, while the goal of kidney transplantation itself is to provide unlimited supply of organs for all of recipients. Elsafi *et al.*, (2017) argue that encouraging organ donation requires information about the population awareness and attitude towards donation. Thus, this study tries to reflect Indonesian societies in conforming kidney organ donation, and examine the factor that might moderates their intention to donate kidney. While further, also expecting that it can gives contribution towards the health authorities in Indonesia to develop its kidney donation program in the future.

LITERATURE REVIEW

Relationship between Financial Incentive and Attitude to Donate Kidney. As a high involvement act, the consideration to donate kidney based on risk and benefit analysis. Incentive variable has a role as the benefits that is associated with effort, expense, suffer and sacrifice which faced by the donor in donating their kidney. The compensation is provided by the recipient or agency as a form of gratitude and appreciation for the donor's donation. The financial incentive itself is considered to be important variable because the sacrifice includes the time spent to undergo the procedure (loss of earning) and short-term living expenses which consist of travel cost, child/family-care, and psychological need (Delmonico and Dew, 2007; Gill *et al.*, 2014). Prior study found, incentive has a significant effect on donor consideration to donate in voluntary blood donation (Nonis *et al.*, 1996; Iajya *et al.*, 2013).

The use of financial incentive in kidney donation program has been highly debated in donation related literatures, the pro (Barnet *et al.*, 1992; Friedman and Friedman, 2006; Iajya *et al.*, 2013; Gill *et al.*, 2014) and cons (Das and Lerner, 2007; Rodriguez-Iturbe, 2008; Garcia, Harden and Chapman, 2012; Al Rahbi and Al Salmi, 2017) has been discussing over the effect of financial incentive in micro and macro issues due to its association with public health problem.

The study conducted by Das and Lerner (2007) argues that incentive are more compelling in the eyes of poor and less educated potential donors, it even makes the country that had implemented incentive based system to have 20-30% higher donation rates compared to the those who don't. However, the health authorities and government main consideration is to prevent individuals from profiting from the sales of organs and tissues (Gill *et al*., 2014). Study conducted by Barnett *et al.*, (1992) argue that most analysts agree that payments for organs would encourage donation, yet many medical practitioners steadfastly hold that monetary incentive for organ donors and connecting the organ markets as unethical and immoral practices.

Although the implementation of incentive system in donation program has been debated over, the impact of financial incentive have been proved to increase the pro-social behavior of donation in a middle income economy (Iajya *et al.*, 2013). As a form of benefit,

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

financial incentive is an item that can be used to makes kidney donation program became more attractive in the eyes of publics. Based on Gill *et al*., (2014) in accordance with the crowding out motivations theory, financial incentive for organ donation could compromise a personal intrinsic motivations, where sometimes incentive does encourage personal decision making in performing a certain act or task. Iajya *et al.*, (2013) argues that this compensation could tip the trade-off in favor of donation through increasing the total benefit of post-donation act. In addition, financial needs might also affect the expectations of the donor regarding to the financial gain that wants to be received.

This study aims to determine the extent of which incentive affect Indonesian kidney donation in unrelated and altruistic donor source, in accordance to that, this study proposed that financials incentive plays role in creating a better evaluation/attitude towards organ donation program. Thus, this study formulate hypothesis as follow:
H1: The higher the financial incentive, the higher the positive attitude to donate kidney.

Relationship between Perceived Risk and Attitude to Donate Kidney. In this study, perceived risk is associated with the received immediate and long-term negative consequences by an individual in donating their kidney. The perception itself is associated to this study because the activities is considered to be risky and has uncertainty (Assael, 2001), which makes people who undergo this activities are categorized as a risk taker (Nonis *et al.*, 1996). According to Delmonico and Dew (2007) one of the examples in organ donation risk is where the donors subsequently developed kidney failure from 5 to 15 years after donation and find themselves in need of kidney transplant.

The perceived risk itself is considered to be important variable, Prottas (1983) stated that the primary cost of involvement in organ donation is confronting fear and anxiety because unlike blood that can be resupplied again, kidney is an organ that can't grow back inside the body. Furthermore, the impact for only having a kidney can also reduce the quality and the quantity of the donor's life (Hou, 2000). Hence, in reducing the associated risk a person usually tries to increase the certainty of the outcome, through acquiring additional information, one of it was performing more extensive information processing (Assael, 2001).

The perceived risk is affected by obtained risk information and conformity, this conformity then build-up the level of donor perceived risk. Though the consequences that associated with organ donation cannot be changed by marketers/health authorities, but the conformity of risk can still be controlled through presenting the consequences aligned with information that shows the worst outcomes might be avoidable to the donor. Prior research found perceived risk negatively related to intention of donating blood (Allen and Butler, 1993; Nonis *et al.*, 1996).

Perceived risk consist of 4 dimensions, (Allen and Butler, 1993) perceived time, psychological, social, and physical risk. If potential donors believe there are high levels of risk associated with donation, they are less likely to donate their organ (Nonis *et al.*, 1996). A low perceived risk tends to make the donor feel safer to undergo the procedure of kidney donation, thus, this study propose that a lower perceived risk might result in a better

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

evaluation of kidney donation act. The hypothesis is formulated as follow:
H2: The higher the perceived risk, the lower the positive attitude to donate kidney.

Relationship between Attitude and Intention to Donate Kidney. In accordance to the TPB (Theory of Planned Behavior), attitude refers to an individually formed assessment, a degree of favor and disfavor towards certain behaviors (Ajzen, 1991; Assael, 2001; Pauli *et al.*, 2017). After assessing the behavior as positive or negative, the subject automatically and simultaneously acquires an attitude towards the behavior (Pauli *et al.*, 2017). The variable is considered to be essential because the practice of kidney donation itself is highly influenced by personal attitude (Elsafi *et al.*, 2017) and understanding individual attitude toward organ donation is essential to increase the willingness to donate (Pauli *et al.*, 2017).

Previous literatures have been supporting the significance of attitude to donate in forming people intention to donate organ (Horton and Horton, 1990, 1991; Pauli *et al.*, 2017). Attitude has a role as the affective base in the formation of individual's evaluation, and predictor of donor's intention which represent future behavior of kidney donation, therefore, the attitude of individual is shaped by behavioral beliefs to adopt a certain act and consequences (negative or positive) over the act (Pauli *et al.*, 2017). The higher the individual attitude to donate, it is more likely that the individual has intention to donate his/her kidney (Horton and Horton, 1990, 1991; Assael, 2001). Hence, the study formulates the hypothesis as follow:
H3: The higher the positive attitude to donate kidney, the higher the intention to donate kidney.

Relationship between Altruism with Financial Incentive and Attitude to Donate Kidney. Study of Morgan and Miller in Pauli *et al.,* (2017), the individual who signed in a donor card have significantly more altruism and stronger social normative support for organ donation. It is also supported by previous literature in blood donation settings, where the finding shows that altruism and people awareness of demand in kidney is considered to be the primary factors that build individual intention to donate their blood. Based on Mahoney and Pechura in Horton and Horton (1991), the characteristic of broadminded, cheerful, courageous, helpful and honest were identified to be significantly related to altruism.

Study of Cleveland and Moores *et al*., on Prottas (1983) has determined 'a desire to help others' as primary reason for respondent to donate their organ. Further, a survey conducted by New England Organ Bank on Prottas (1983) also presented that majority of respondent has stated that their reason to donate also came from the urges to help other, these results show the important role of altruism in creating the decision to donate kidney. However, a study conducted by Pauli *et al.*, (2017) find that when money is involved there is a decrease in the attitude and intention to become an organ donor, this might answered by the finding from Iajya *et al*., (2013) where financial incentive may conflict with personal intrinsic motive to play a good act, this is then lead to a reduction in blood donations. Hence, to prove the relationship and influence of altruism between financial incentive and attitude to donate kidney, the study formulates hypothesis the following hypothesis:
H4: Altruism weaken the influence of financial incentive to attitude to donate kidney.

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Relationship between Altruism with Perceived Risk and Attitude to Donate Kidney. This study wants to examine the effect of altruism on the relationship between perceived risk and attitude to donate kidney. As the factors of perceived risk has been known to be statistically significant between donor and non-donor in blood donation settings (Nonis *et al*., 1996). Further, fears have been attributed as one of the strongest reason to not donating blood (Allen and Butler, 1993; Nonis *et al*., 1996). In accordance to that, the research formulates the following hypothesis:
H5: Altruism weaken the influence of perceived risk to attitude to donate kidney.

Relationship between Altruism with Attitude and Intention to Donate Kidney. The next phenomenon that wants to be examined is the influence of altruism in the relationship between attitude and intention to donate. Study of Radecki and Jaccard in Pauli *et al.*, (2017) argued, although beliefs and attitude influence people's intention to donate organ, altruism found to be one of other aspects that has influence on individual attitude on donating organ. The hypothesis is formulated as follow:
H6: Altruism strengthens the influence of attitude to intention to donate kidney.

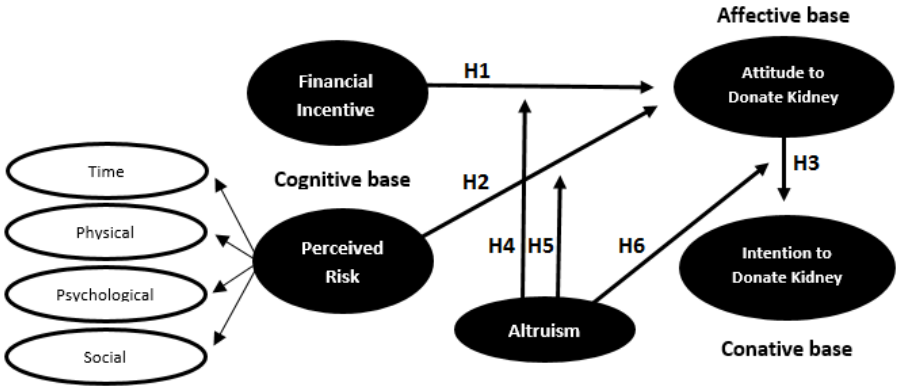

Figure 1. Model Development of Intention to Donate Kidney with Altruism as Moderation Variable

Using deductive-inductive method, the modification of this model is based on the result of mini research and literature study. This model illustrates the formation of intention to donate kidney that's affected by donor's attitude. The attitude to donate kidney is formed by individual perception on financial incentive and perceived risk, while the relationship among variables are moderated by altruism. In accordance with the study of Allen and Butler (1993), the perceived risk is in reflective formation stood by perceived time, physical, psychological, and social.

METHOD

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Sampling Technique. The research respondents are available on Facebook online community - this community is named as "*Donor Ginjal (@*KidneyDonorIndonesia)" a non-profit oriented organization that runs a Facebook page which lets anyone to put or look for any information about kidney donation and has more than 4.200 followers. Thus, survey with non-probability and convenience sampling was chosen, performed through contacting all of listed potential respondents that can be contacted with mobile/online media. The population in this research are individuals whom potentially able to become a donor, Indonesian, and understand about kidney donation. While the samples of this study are individuals that's included in the research population and have interest to donate their kidney.

Each of potential respondents in KDI Facebook page are contacted through Facebook Messenger, SMS and Whatsapp 1 to 4 times during the data collection period. They receive a message containing descriptions about research topic and a link which direct them to the prepared online questionnaire. The targeted sample for this study are 170 respondents (Hair Jr. *et al.*, 2010), to reach this target, 545 contact of potential respondents are prepared throughout October 2017 to May 2018.

Definition of Variables. In behavioral context, financial incentive is defined as an individual perception on financial compensation that will be received by the donor over their decision and contribution in donating their kidney. Financial Incentive is measured through the following indicators: attractive, fair, appropriate, beneficial, and reasonable.

In this study, perceived risk is associated with the consequences by an individual related to kidney donation. In this study, it consist of physical, psychological, time, and social consequences associated with kidney donation (Allen and Butler, 1993; Nonis *et al.*, 1996; Assael, 2001). The variable is measured through following dimensions (Allen and Butler, 1993; Nonis *et al.*, 1996) (1) Perceived psychological risk, defined as potential loss of self-esteem and discomfort because the act is inconsistent with the prospect sense of self-identity. The Indicators consist of uneasy, sweating, dejected, worried, and cautious (2) Perceived social risk, refers to the possibility that performing an action can bring impact – in negative will 'reduce', to someone's status with their social environment. The Indicators consist of mocked, insulted, depressed, and judged (3) Perceived time risk, defined as Pragmatic concern of contemporary part of life that needs to be spend in performing a certain behavior. The Indicators consist of (Allen and Butler, 1993) time off from work, long waiting time, and loss of opportunity (4) Perceived physical risk, is the risk of physical harm as a result of performing an act or behavior (Assael, 2001), the Indicators consist of morbid, injured, and weak.

Attitude to donate kidney Attitude as part of affective base is defined as personal feeling either favor or disfavor, a form of assessment towards the act of kidney donation (Ajzen, 1991; Assael, 2001; Pauli *et al.*, 2017). In accordance with (Horton and Horton, 1991) it consists of following indicators, namely enthusiast, liking, happy, glad, and favorable.

Intention to donate is personal consideration over the act of kidney donation which reflects someone's future behavior in donating their kidney, it is a cognitive representation

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

of an individual who is ready to perform the act (Ajzen, 1991; Horton and Horton, 1991; Assael, 2001; Pauli *et al.*, 2017). In accordance with Horton and Horton (1991) the indicators consist of willing, want, considering, possibly, and committed.

Altruism is a personal trait that tends to emphasize humanity values and act of empathy. Individual who has an altruism characteristic usually reflect a selfless trait and more concerned on the well-being of other (Prottas, 1983; Horton and Horton, 1991; Nonis *et al*., 1996). In this study, altruism is reflected through the following indicators: sympathy, compassion, pity, and concern.

RESULTS AND DISCUSSION

Obtained Samples. 545 contacts are prepared from October 2017 to May 2018, however, only 101 out of 125 respondents are processed into the statistical analysis. The 24 filtered respondent are dropped due to patterned answer, fell in reverse question item, outlier, and submit more than 1 data in 1 identity. The characteristic of respondents are presented in Table 1. Based on the obtained data, it presents most of research respondents are Male, take domicile in Java *(Jawa)*, 26-30 years old, have been Married, Moslem, Senior High School graduates, Private Industries workers, and has IDR 2.000.001 – IDR 3.000.000 Income. These potential donors are found to mostly request for >IDR 400.000.000 financial incentive.

Table 1. Proportions of Research Respondents

Respondents Characteristic	Group	Amount	Percentage
Gender	1. Male	60	59.40%
	2. Female	41	40.59%
Domicile	1. Jawa	88	87.12%
	2. Kalimantan	4	3.96%
	3. Sumatra	3	2.97%
	4. Riau	3	2.97%
	5. Sulawesi	1	0.99%
	6. Nusa Tenggara	1	0.99%
	7. Papua	1	0.99%
Status	1. Married	69	68.31%
	2. Single	22	21.78%
	3. Divorced	10	9.90%
Religion	1. Islam	94	93.06%
	2. Christian	6	5.94%
	3. Buddhism	1	0.99%
Age	1. 18 – 25 years old	12	11.88%
	2. 26 – 30 years old	33	32.67%
	3. 31 – 35 years old	16	15.84%
	4. 36 – 40 years old	27	26.73%
	5. 41 – 45 years old	8	7.92%
	6. 46 – 50 years old	3	2.97%
	7. Over 50 years old	2	1.98%
Education	1. SD (Elementary School)	7	6.93%
	2. SMP (Junior High School)	17	16.83%
	3. SMA (Senior High School)	60	59.40%
	4. S1/D3 (Beachelor/Diploma Degree	16	15.84%
	5. S3 (Doctoral Degree)	1	0.99%
Occupation	1. Unemployed	17	16.83%
	2. Housewife/husband	22	21.78%
	3. Private industries worker	41	40.59%
	4. PNS/TNI/POLRI (states worker)	2	1.98%
	5. Entrepreneur	19	18.81%
Income	1. Less than IDR 500.000	19	18.81%
	2. IDR 500.001 – IDR 1.000.000	17	16.83%
	3. IDR 1.000.001 – IDR 2.000.000	17	16.83%
	4. IDR 2.000.001 – IDR 3.000.000	27	26.73%
	5. IDR 3.000.001 – IDR 5.000.000	17	16.83%
	6. More than IDR 5.000.000	4	3.96%
Financial Request	1. Any amount will be accepted	17	16.83%
	2. IDR 5.000.001 – IDR 50.000.000	3	2.97%
	3. IDR 50.000.001 – IDR 100.000.000	4	3.96%
	4. IDR 150.000.001 – IDR 200.000.000	8	7.92%
	5. IDR 200.000.001 – IDR 250.000.000	10	9.90%
	6. IDR 250.000.001 – IDR 300.000.000	7	6.93%
	7. IDR 300.000.001 – IDR 350.000.000	4	3.96%
	8. IDR 350.000.001 – IDR 400.000.000	11	10.89%
	9. Over IDR 400.000.000	37	36.63%

Statistical Analysis. Using the support of Smart PLS3 and bootstrapping result, as presented on the Table 1 the perceived risk and financial incentive found to has negative effect on kidney donors attitude, while attitude found to have positive effect on intention to donate kidney. Financial incentive influence on donor's attitude found to be negatively significant with the value of t-statistic as 2.86 (>1.96) and Original Sample as -0.303 (negative). It means the higher the financial incentive, the lower the donor's positive attitude to donate kidney. Although the relationship between the variable are proven but the influence found to not supporting the proposed hypothesis. Thus, **Hypothesis 1 is not supported.** This result

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

supporting the study of Pauli *et al.*, (2017) which stated that monetary factor had a significant negative effect, and when payment is involved there is a decrease in the attitude and intention of the donors.

Perceived influence on donor's attitude found to be negatively significant with the value of t-statistic as 7.47 (>1.96) and Original Sample as -0.695 (negative). It means the higher the perceived risk, the lower the donor's positive attitude to donate kidney. Thus, **Hypothesis 2 is supported**. The result of data analysis also shown that risk have a higher negative effect to attitude compared to incentive. In the findings, the higher perceived risks in sequence are psychological, social, time, and physical risk. Kidney donation is known to have high associated risks, therefore, this result is not in accordance with the result of perceived risk in blood donation behavior (Allen and Butler, 1993; Nonis *et al*., 1996).

Attitude influence on donor's intention found to be positively significant with the value of t-statistic as 4.01 (>1.96) and Original Sample as 0.436 (positive). It means the higher the positive attitude, the higher the donor's intention to donate kidney. Thus, **Hypothesis 3 is supported**. This result is in accordance with the findings of Horton and Horton (1991) and Pauli *et al.*, (2017) which stated that attitude is closely associated with behavioral intention to donate organ.

Table 2. Output of Path Coefficient

Hypothesis Test (Bootstrapping, standard= t-statistic > 1.96)

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)
(H3) Attitude -> Intention	0.436	0.108	4.015
(H1) Fin. Incentive -> Attitude	-0.303	0.106	2.860
(H2) Perceived Risk -> Attitude	-0.695	0.093	7.477
Perceived Risk -> PR.Pcg	0.950	0.010	90.912
Perceived Risk -> PR.Psc	0.839	0.056	15.106
Perceived Risk -> PR.Sc	0.893	0.033	27.450
Perceived Risk -> PR.Tm	0.851	0.051	16.822

In this study, the moderation testing is performed through Bootstrapping method with Smart PLS 3 support and manual calculation using Chin's Path Coefficient formula (Ghozali, 2011). To conduct this test, 2 groups are going to be compared – low altruism group and high altruism group. The categorization of this group is differentiated by the average total value of altruism items. The standard for total value is 4, therefore, <3.99 it will be included as low altruism group while >4 will be included as high altruism group. This test includes a total of 48 respondents with low altruism and 53 respondents with high altruism. The standard to prove the moderation role of altruism is t-statistic >1.96 (Ghozali, 2011).

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Table 3. Path Coefficients of Multi Group

Attitude to Intention	**Low**	**High**
Path Coefficient	-0.595	0.555
Standard Error	0.088	0.395
T-Table	6.797	1.405
Financial Incentive to Attitude	**Low**	**High**
Path Coefficient	-0.502	-0.114
Standard Error	0.125	0.185
T-Table	4.006	0.618
Perceived Risk to Attitude	**Low**	**High**
Path Coefficient	-0.490	-0.825
Standard Error	0.141	0.206
T-Table	3.467	3.996

As presented in Table 3 the behavior of kidney donation in multi group: for the low altruism group, the perceived risk, financial incentive, and attitude has a negative effect on the donors, however, financial incentive found to have a direct effect on intention; for the high altruism group, financial and attitude found to have no effect on the kidney donors, while perceived risk found to has negative effect towards the donors.

Table 4. Output of Chin's Path Coefficient for Multi Group Analysis

Moderation Test (standard= t-statistic >1.96)

Interaction	**t-statistic**	**Moderation Effect**
Alt on Att -> Int	2.8423	(H6) Supported
Alt on F. Inc -> Att	1.7378	(H4) Un-supported
Alt on PR -> Att	-1.3421	(H5) Un-Supported

Based on the result presented on Table 4, altruism role in the financial incentive influence on donor's attitude found to has no effect, with the value of t-statistic as 1.73 (>1.96). It means there is no difference between low and high altruism over the influence of financial incentive. Thus, **Hypothesis 4 is not supported.** However, it is found that in low altruism group, there is a positive significant effect of financial incentive toward intention to donate. Meaning that there is a strong economic motive on group with low altruism that their intention is driven by the financial incentive (presented on Table 3).

Table.5. Comparing Financial Incentive Influence on Attitude and Intention in Multi Group

F. Incentive ->Attitude	**Low**	**High**
Path Coefficient	-0,459	-0,104
T-Table	3,076	0,552
F. Incentive ->Intention	**Low**	**High**
Path Coefficient	0,696	-0,239
T-Table	4,015	1,155

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Altruism role in the perceived risk influence on donor's attitude found to has no effect, with the value of t-statistic as -1.34 (>1.96). It means there is no difference between low and high altruism over the influence of perceived risk. Thus, **Hypothesis 5 is not supported,** in both groups perceived risk is proven to have a significant negative effect on attitude, meaning that altruism has no difference – either strengthening or weakening, in low or high altruism group due to its high associated risk.

Altruism role in the attitude influence on donor's intention found to has an effect, with the value of t-statistic as 2.84 (>1.96). The result of original sample on low altruism group is -0.595 (negative) and on high altruism group is 0.555 (positive), it means there is significant difference between low and high altruism over the influence of attitude. Thus, **Hypothesis 6 is supported.** This result is in accordance with the result of hypothesis 4 that in low altruism group the act is strongly driven by financial incentive or economic motive, while in high altruism group it is driven by humanity motives.

This study limit its object into individual that wants to donate its kidney through an online community, it present the perception of potential donors in donating kidney on altruistic and unrelated kidney donor sources. Through analyzing the research data, this study found altruism found to moderates the behavior of kidney donation in Indonesia. It presents the differences between those who are more emphasizing on humanity values and those who only seek for financial benefit from kidney donation. The low altruism donors tend to have short-term decision effect, because they're driven by economics motives, the weak mediation role of attitude in low altruism group is explained by the strong influence of financial incentive on intention. However, once the donor had fulfilled their need in money, their attitude is the one that reflect their intention to donate kidney. If they had a low attitude towards kidney donation it is more likely that they'll cancel off their plan to donate kidney.

In high altruism group, the people tends to have a long-term decision effect due to the humanity motive that they have, it is more likely for them to have lower interest on financial incentive compared to the low altruism group. Due to the high associated risk, both groups has no differences in dealing with the perceived risk, because the result proves that in both group the perceived risk found to has significant negative influence on attitude to donate kidney. The result also prove that the moderating role of altruism is highly found to be in attitude influence on intention to donate kidney. However, the result might be different compared to the study that's conducted in developed countries. In Indonesia the respondents tend to has low education, facing economic crisis, and low income background, further, kidney donation program is still uncommon for public except as financial reserve.

CONCLUSION

Understanding the potential market for kidney donation while also determining the right regulation will create a better, impactful, and more effective strategy. Creating a national initiative that can move those who has probability to donate but not yet been aware of this issue and/or encourage those who already has decision to donate their kidney.

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Enhancing that kidney donation is deeply associated with 'helping others', 'act of sympathy', heroism', and 'generosity' that nothing in the lives compared. These values will support the kidney donation program to emphasize more in voluntary-motives, both in altruistic or unrelated kidney source. While to emphasizing on economic-motives, an improvement of system regarding to financial incentive should be made in which also followed by legal and pragmatic considerations.

This study is expected to gives insight for health authorities and related institutions in Indonesia about potential donor's attitude and considerations in donating their kidney. The research result presents that the donors has their own motives, this motives lead them to act in different ways. The donors also know that kidney donation is an act that associated with high risk, that's why they look for a higher benefit either in humanity values or in economic profit. Having medias to share about information regarding to risk and benefit in kidney donation is also important because the influence of media is fundamental to creates society interest on kidney donation, In here it is recommended to utilize more on online medias, health organizations/forum, and word of mouth.

Through understanding the presented result, it is expected that an effort to make better strategy to promote awareness of kidney donation in Indonesia will be created. Implementing an effective marketing strategy for this program will support the development of kidney donation, which is to have higher supplies of kidneys. It can decrease the gap of kidney demand and supply in Indonesia, promoting humanity acts aligned with raising the public supports, reducing the length of kidney waiting list, and supporting those who suffer from kidney diseases.

REFERENCES

Ajzen, I (1991) "The theory of planned behavior", *Orgnizational Behavior and Human Decision Processes*, 50, pp. 179–211. doi: 10.1016/0749-5978(91)90020-T.

Allen, Jeff and Daniel D Butler (1993) "Assessing the Effects of Donor Knowledge and Perceived Risk on Intentions to Donate Blood", *Journal of Health Care Marketing*, 13(3), p. 26.

Al Rahbi, F; Issa Al Salmi (2017) "Commercial Kidney Transplantation: Attitude, Knowledge, Perception, and Experience of Recipients", in *Kidney International Reports*. Elsevier Inc, pp. 626–633. doi: 10.1016/j.ekir.2017.02.010.

Anna, LK (2013) *Pasien Cuci Darah Terus Meningkat, Health Kompas*. Available at: http://health.kompas.com/read/2013/06/26/1640186/Pasien.Cuci.Darah.Terus.Meningkat (Accessed: 14 September 2017).

Assael, Henry (2001) *Consumer Behavior & Marketing Action, 6th Edition*. 6th edn. Thonson Learning, Singapore. Available at: http://www.nlb.gov.sg/biblio/10153024.

Barlow, A D (2017) "Kidney transplantation", *Surgery (Oxford)*. Elsevier Ltd, 35(7), pp. 378–384. doi: 10.1016/j.mpsur.2017.04.002.

Barnett, AH; RD Blair; DL Kaserman (1992) "Donation: Compensation Versus Markets", *Inquiry : a journal of medical care organization, provision and financing*, 29(3), pp.

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

372–378.

Das, KK; BH Lerner (2007) "Opportunities not taken: Successes and shortcomings in the Institute of Medicine's report on organ donation", *Kidney International*. Elsevier Masson SAS, 71(8), pp. 726–729. doi: 10.1038/sj.ki.5002143.

Delmonico, FL; MA Dew (2007) "Living donor kidney transplantation in a global environment", *Kidney International*. Elsevier Masson SAS, 71(7), pp. 608–614. doi: 10.1038/sj.ki.5002125.

Elsafi, SH; MM Al-Adwani; KM Al-Jubran; Abu Hassan; EM Al Zahrani (2017) "Factors Influencing the Willingness of Allied Health Students to Donate Organs or Tissues", *Transplantation Proceedings*. Elsevier Inc., 49(6), pp. 1215–1220. doi: 10.1016/j.transproceed.2017.03.085.

Friedman, EA; AL Friedman (2006) "Payment for donor kidneys: Pros and cons", *Kidney International*. Elsevier Masson SAS, 69(6), pp. 960–962. doi: 10.1038/sj.ki.5000262.

Garcia, GG; PN Harden; JR Chapman (2012) "The global role of kidney transplantation", *Kidney International*. Elsevier Masson SAS, 81(5), pp. 425–427. doi: 10.1038/ki.2011.438.

Ghozali, I (2011) *Structural Equation Modeling: Metode Alternatif dengan Partial Least Square*. 3rd edn. Semarang, Indonesia: Badan Penerbit Universitas Diponegoro.

Gill, JS; Scott Klarenbach; Lianne Barnieh; Timothy Caulfield; Greg Knoll; Adeera Levin; Edward H Cole (2014) "Financial incentives to increase Canadian organ donation: Quick fix or fallacy?", *American Journal of Kidney Diseases*. National Kidney Foundation, Inc., 63(1), pp. 133–140. doi: 10.1053/j.ajkd.2013.08.029.

Hair Jr, JF; William C Black; Barry J Babin; Rolph E Anderson (2010) *Multivariate Data Analysis*. 7th edn. Pearson.

Horton, RL; PJ Horton (1990) "Knowledge regarding organ donation: Identifying and overcoming barriers to organ donation", *Social Science and Medicine*, 31(7), pp. 791–800. doi: 10.1016/0277-9536(90)90174-Q.

Horton, RL; PJ Horton (1991) "A model of willingness to become a potential organ donor", *Social Science and Medicine*, 33(9), pp. 1037–1051. doi: 10.1016/0277-9536(91)90009-2.

Hou, S (2000) "Expanding the kidney donor pool: Ethical and medical considerations", *Kidney International*. Elsevier Masson SAS, 58(4), pp. 1820–1836. doi: 10.1046/j.1523-1755.2000.00345.x.

Iajya, Victor; Nicola Lacetera; Mario Macis; Robert Slonim (2013) "The effects of information, social and financial incentives on voluntary undirected blood donations: Evidence from a field experiment in argentina", *Social Science and Medicine*. Elsevier Ltd, 98, pp. 214–223. doi: 10.1016/j.socscimed.2013.09.012.

Maiorano, A; FP Schena (2008) "The dynamics of kidney donation: Viewpoints from the donor, the recipients, and the transplant team", *Kidney International*. Elsevier Masson SAS, 73(10), pp. 1108–1110. doi: 10.1038/ki.2008.118.

Marcelino, Albertus; Chaidir A Mochtar; Irfan Wahyudi; Agus R Hamid (2017) "Kidney transplantation: A new era of laparoscopic living donor nephrectomy in Indonesia",

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002

Asian Journal of Surgery, pp. 2–5. doi: 10.1016/j.asjsur.2017.02.010.

Nonis, SA; Charles W Ford; Laddie Logan; Gail Hudson (1996) "College student's blood donation behavior: Relationship to demographics, perceived risk and incentives", *Health Marketing Quarterly*, 13(4), pp. 33–46. doi: 10.1300/J026v13n04_04.

Pauli, J; K Basso; J Ruffatto (2017) "The influence of beliefs on organ donation intention", *International Journal of Pharmaceutical and Healthcare Marketing*, 11(3), pp. 291–308. doi: 10.1108/IJPHM-08-2016-0040.

Prottas, JM (1983) "Encouraging altruism: public attitudes and the marketing of organ donation", *The Milbank Memorial Fund quarterly. Health and society*, 61(2), pp. 278–306. doi: 10.2307/3349908.

Rodriguez-Iturbe, B (2008) "Organ trafficking: A time for action", *Kidney International*. Elsevier Masson SAS, 74(7), pp. 839–840. doi: 10.1038/ki.2008.389.

ISSN : 2088-1231
E-ISSN: 2460-5328
DOI: dx.doi.org/10.22441/mix.2018.v8i3.002