

Self Determination Theory in the Context of Blood Donor as Co-Producer and Co-Participants: Literature Review

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Abstract

Blood shortage is an international problem. Whereas the need for safe blood to save lives in various situations, especially emergency and epidemic situations. In Indonesia, the need for blood is still 58% of the availability of collected blood. Research needs to be carried out so that the results become recommendations for a strategic plan to increase donors. The marketing concept of service dominant logic is that donors are co-producers and co-participants where donors are not only consumers but co-producers and co-participants because the quantity and quality of blood is managed by the donor. Exploring this concept with self-determination theory so that donor motivation can be known. The study uses a literature review with analytic descriptive examining the literature on Self-Determination Theory for blood donation as a process of building donor relationships as co-producers and co-participants. The research results of self-determination theory are able to build the motivation of blood donors as co-producers and co-participants.

Keywords: Self Determination, Blood Donor, Co-Producer, Co-Participants

INTRODUCTION

Safe blood saves lives in all situations, especially in emergencies and epidemics. Blood transfusions that produce blood products are very important, including delivery for mothers and babies; survival and quality of life of patients suffering from life-threatening conditions such as haemophilia, thalassemia, immunodeficiency and cancer; treat serious injuries and perform medical and surgical procedures.

But progress in safety and availability of blood according to WHO data has been slow in many parts of the world, placing patient safety at risk and placing undue pressure on health workers. Progress has also been largely confined to developed countries. Of the approximately 118 million blood donations collected globally, 42% were collected in high-income countries (who, n.d.). From these data it can be seen that the need for blood availability, especially in Indonesia. Data on blood availability in Indonesia itself is in accordance with data with Indonesia's central blood transfusion unit in 2020, which is still 58% of blood availability. So it is necessary to do research so that an improvement strategy is formed donor. One of the challenges is the insufficient number of voluntary blood donors even though voluntary blood donors are the safest donors.

The marketing concept is fundamentally different for blood donors based on the service dominant logic (SDL) concept. Donors are co-production not only co-production in services but co-production in their products. Because the donor has blood in his body which will be produced by the blood manager. Adequacy of blood and quality of blood to be donated depends on the consumer. Blood has quantity standards in an area and quality required by Permenkes no. 91 of 2015. To build this concept it is necessary to have a joint process of conceptualization and measurement with the orientation of blood needs, it is suggested that joint production must be brought to the "front-end process", namely the front process about the customer becoming the company's concept. The front-end process to identify customer needs/desires (Lusch, Robert F., Vargo, 2015)

The process of identifying the co-producer's customer value in the front process is a value creation process: the process of identifying customer needs. The process unlocks deeper insights into co-production methods to build stronger capabilities in co-production with customers. So that the acquisition of blood as a community need will be fulfilled both in quantity and quality of blood. Characteristics of dialogue that can enhance the ability to "co-create the future" of what blood donation services may require. The value created by the donor is adopted in blood production. The value of the donor as a consumer as well as co-production should participate in the implementation of value creation activities. Therefore, the logic of SD states that production and consumption are not two separate activities but a continuous whole, and donors are not

recipients of the complete output but are involved in the whole process of value creation (Lusch, Robert F._ Vargo, 2015).

Social processes in the context of services are built because marketing is a social process, not just a transactional process, but a process built from fulfilling the needs of producers and consumers. Service is the main axis of relationship marketing. The potential for unification through simultaneous understanding of buyer behavior, seller behavior, the institutional mechanisms that bring buyers and sellers together, and the role of marketing in society . (Lusch, Robert F._ Vargo, 2015)The blood donation process is a social process because obtaining safe and quality blood is not just an organizational process, in this case PMI as an organization that is mandated as a blood supply company for patients in need. The social process that is built between donors as consumers as well as blood providers is a continuous process that cannot be separated. The role of the donor has voluntary characteristics, so building collaborative relationships based on this SDL concept, companies (PMI) must be able to capture donor value and build collaborative relationships to create donor loyalty.

The value creation process can be explored through motivation in donating blood. Motivation as a human drive to behave as a blood donor illustrates how strong the desire to donate blood is . According to Abraham Maslow (in Kotler, 2009) Motivation can be described as the driving force within individuals that prompts them to act means motivation is the driving force within a person that compels him to perform an action. Herzberg, Frederick. (1964) Motivation will provide a strong impetus for someone to take action , in this case consumers are called donors who are consumers in the Indonesian Red Cross Blood Transfusion Unit.

A motivational theory that is able to explore the involvement of donors as co-production and co-participants in blood donation is self-determination theory (SDT). SDT because as a theory of motivation does not shape and control motivation not only from external donors, but SDT emphasizes the tendency of self-autonomous motivation and how this motivation is attached to people to learn and grow. (Curren & Ryan, 2020)Self-determination theory (SDT) is a macro theory about motivation, emotions, and personality in a social context (Ryan et al., 2017; Ryan & Deci, 2020a). An example of understanding this theory is that a person donates not because he participates in animate blood donation activities but because his choice comes from feeling happy and liking humanitarian activities. For example, in consumer trade, a woman may not necessarily choose to buy designer clothes to signify wealth and status (ie, extrinsic motivation), but rather choice may stem from his natural interest in new clothing designs (i.e. intrinsic motivation)(Paul & Gilal, 2018)

Several studies have proposed "Self-termination theory" as a better predictor of behavior combining goal-directed behavior constructs with SDT constructs to predict consumer behavior, particularly in Australia. This mix suggests the autonomous motivation of SDT to be a better predictor of consumer behavior compared to more established predictors . 'subjective norm', 'perceived behavioral control', and 'past behavior'. (Paul & Gilal, 2018).

Self Determination Theory (SDT) is a very broad theory of motivation that has been successfully applied across fields including parenting, education, health care, exercise and physical activity, psychotherapy, and cyberspace, as well as the fields of work motivation and management. marketer n (Paul & Gilal, 2018; Ryan & Deci, 2019).

Self-termination theory provides an overall opportunity to answer the phenomenon of the need for blood in Indonesia. Increasing the motivation of donors who are volunteers willing to help patients in need is a noble thing. Blood volunteer donors have loyalty to always donate. It is not permitted to have a reward process as the practice of buying and selling organs. This is stated in the prohibition on the sale of human organs, not regulated in the Criminal Code, but in Law no. 36 of 2009 concerning Health ("Law 36/2009"). This is confirmed in Article 64 paragraph (3) of Law 36/2009, which states that organs and/or body tissues are prohibited from being traded under any pretext. The perpetrators of selling organs and/or body tissues are subject to criminal sanctions as regulated in Article 192 of Law 36/2009. In that article it is stated that anyone who deliberately trades organs or body tissues under any pretext as referred to in Article 64 paragraph (3) shall be punished with imprisonment for a maximum of 10 years and a fine of up to Rp. 1 billion.

If the donor does not have a sufficient number of patients who cannot get the blood they need, then they have to find donors from family, friends or spread the information through social media such as

WhatsApp, Facebook, and others. Often also the urgent need of patients in the middle of the night for patients who urgently need blood from donors. (Azizah, n.d.). Submission through the mass media will be successful if the donor has strong motivation and is moved to donate when he is notified of the need for blood. Conversely, if this motivation is not awakened, the donor will ignore the message and this will endanger the health condition of the patient who needs it. The role of the community in donating blood as a charitable process for humanity is important. Increase the original values of the value of helping fellow human beings

The author's interest in research is also due to the fact that most of the research on blood donors is engaged in the quality and safety of blood, starting from the method of blood collection, storage to distribution, not to boost the donor as a blood provider. Safety and quality of blood is very important because it determines the safety of the patient's life. But the availability of donors when the patient's blood is needed is also *urgent*. Studies on donors and efforts to increase donor interest, both first-time donors and repeat donors, are still lacking in research. For this reason, we are interested in conducting research on self-managed theory on donor loyalty by examining the moderation of charitable perceptions for donors in Indonesia.

THEORETICAL FRAMEWORK

1. Definition of Donor

Blood donors are people who donate blood or its components to the patient for purpose of curing disease and recovery health (Pemerintah RI, 2011).

Donors can be classified based on donor motivation, there are only four types of donors that are allowed accordingly (Menteri Kesehatan RI, 2015)

a. Voluntary donors

Is a donor who gives blood, plasma or other blood components at his will and does not receive payment, either in cash or in other ways as a substitute for money. This includes time off from work, unless reasonable time is required to travel to the blood donation site. Voluntary donors may be provided with small gifts, food and drink as well as reimbursement of direct transportation costs in certain circumstances.

b. Family/surrogate donors

Is a donor who gives his blood when needed by members of his family or society.

c. Donor payment

Is a donor who gives blood by getting payments or other benefits to meet basic life needs or something that can be sold or exchanged for cash or transferred to other people.

d. Specific plasma donors

Is a *plasmapheresis donor* to meet the needs of raw materials for the manufacture of plasma derivatives through fractionation. Donors are voluntary donors but can be compensated in the form of reimbursement for direct transportation costs and/or health care services.

d. Convalescent Plasma Donor

- COVID-19 convalescent plasma and immunoglobulin concentrates collected from patients who have recovered based on Verify level of recovery and medical history in comply with applicable clinical management guidelines and comply special requirements regarding COVID-19 convalescent plasma with the following qualifications:
- Previous positive diagnosis of COVID-19 as documented by the results of laboratory tests with diagnostic tests (naso/oropharyngeal) swab when sick or for individuals who have never tested but have a clear history of COVID-19 symptoms;
- Have not shown clinical symptoms of COVID-19 for at least 14 the day prior to donation was documented with a negative test result for SARS-CoV-2 via naso/oro-pharyngeal swab;
- Donors with no history of blood transfusions and female donors who have never been pregnant. If female donors are pregnant, they should be tested and found negative for anti-HLA/HPA/HNA antibodies using a validated test.
- Donor with titre of SARS-CoV-2 neutralizing antibodies, if available at least 1:160. A neutralizing antibody titer of 1:80 is possible considered acceptable if suitable alternative units are not available.

When measuring the neutralizing antibody titer is not available, consider keeping a retention sample from convalescent plasma donation to determine antibody titers at a later date.

- Donors must re-donate their plasma every 14 days, with maximum donation of 12 L a year, if collected with plasmapheresis procedures and meet specific requirements associated with COVID-19 convalescent plasma.
- Donors must be recruited from hospitals treating COVID-19 patients and has given informed consent.

2. Donor Eligibility

Donors must be voluntary and meet the general requirements in accordance with Regulation of the Minister of Health Number 91/2015 regarding Standard of Blood Transfusion Service.

Requirements are conditions that must be met in management a type of service, both technical and administrative requirements.

- a. Age of prospective donors between 17 years to 60 years. For prospective donors who are over 60 years old, they are still allowed to donate blood with the approval/examination of the doctor on duty.
- b. Healthy condition. Not sick or under the influence of drugs/alcohol
- c. Weight must be above 45 kg
- d. For women who are not menstruating, pregnant, or breastfeeding
- e. Not recently had surgery (including dental surgery), not in medical care, not currently taking medication.
- f. Not included in the high risk category of AIDS or other viruses, for example: Hepatitis (www.donordarahsehat.com)

3. Donors as Co Producers and Co Participants

The requirements to become a donor have been described above. From this framework it is clear that donors are co-production because donors determine the availability of blood production as well as determine the safe quality of blood. The concept of co-production and co-participants initiated by the Service dominant logic is explained (Lusch, Robert F._ Vargo, 2015)

METHOD

This research is a type of analytic descriptive research where we examine the literature on Self Determination Theory for blood donation as a process of building donor relationships as co-producers and co-participants. Literature search through Google Scholar and in publications for the last 10 years. From these articles, we analyzed and selected them according to the following criteria:

1. A motivating variable from the concept of self-determination theory as extracting data on donors as co-producers and co-participants in the blood service production process.
2. External regulation variable from the concept of self-determination theory as donor data mining as co-producer and co-participant in the blood service production process.
3. Introjected regulation variable from the concept of self-determination theory as donor data mining as co-producer and co-participant in the blood service production process.
4. Variable Identified regulation from the concept of self-determination theory as donor data mining as co-producer and co-participant in the blood service production process.
5. Variable Integration regulation from the concept of self-determination theory as donor data mining as co-producer and co-participant in the blood service production process.
6. Variable Intrinsic regulation from the concept of self-determination theory as donor data mining as co-producer and co-participant in the blood service production process.

RESULTS

There are three journal titles that are considered relevant and in accordance with the criteria and vision of the literature review which summarizes the factors that shape academic self-efficacy. These three studies are considered to provide clear information regarding research procedures from research locations, descriptions

of participants, research design, and research instruments used. The contributions of the three journals can be presented in table 1.

1. Application of SDT in the Blood Donor

As a theory that focuses on internal and external sources and support for motivation and self-regulation, SDT is based from its inception on an empirical foundation that is continually being refined. We made, in fact, an explicit decision when we began our collaboration that the framework should be built "brick by brick," with new extensions building on the findings that preceded it, and new ideas well confirmed before being included. We seek to avoid, where possible, commission errors in adding to the formal proposition SDT (Legate & Ryan, 2020).

Self Determination Theory (SDT) is a very broad theory of motivation that has been successfully applied across fields including parenting, education, health care, exercise and physical activity, psychotherapy, and cyberspace, as well as the fields of work motivation and management. marketer n (Paul & Gilal, 2018; Ryan & Deci, 2019). SDT focuses on the "nature" of motivation, namely, "why to behave." The underlying assumption is that "human beings are active, growth-oriented organisms that naturally tend to incorporate their psychic elements into a sense of self and incorporate themselves into the larger social structure" (Gilal et al., 2021).

SDT is a general theory of personality that can provide an organizing framework for many of the central questions field. As explained by (Vansteenkiste et al., 2020) in that problem similarly, to be such a framework, SDT has the ability to convincingly describe and explain situational motivation, development psychological, and individual differences. It also has to be predictive, not only anticipate experimental results, but also produce evidence-based interventions. Finally, he must embrace consistency—the goal is to coordinate insights evolutionary, biological, and sociocultural in its psychological framework. SDT researcher overcome these challenges, although with room for improvement each these criteria (Ryan & Deci, 2016)

Previous studies have shown the effectiveness of using self-determination theory for blood donors. Several studies provide strong evidence for the efficacy of interventions based on SDT in various health domains including tobacco dependence (L. Williams, 2019), health medication adherence (G. C. Williams et al., 2011) and physical activity/exercise. (Inoue et al., 2015)

Research results from (Ryan et al., 2008) within the perspective of self-determination theory (SDT: Deci & Ryan, 2000; Ryan & Deci, 2000). The effect of SDT can also be seen in studies (Ntoumanis et al., 2021) that provide results from findings that the effect of SDT on patients has a significant, though not large, intervention impact. Meanwhile, France (C. R. France et al., 2017) found that SDT's motivational orientation explained significantly the intention to donate blood, as much as 14% better than the theory plan behavior model alone.

Table 1
Empirical Research on Self Determination Theory with donor behavior is done

No	Construct	definition	Examples	Frequently used measures
1	Amotivation	Inaction, complete lack of intention, no respect for blood donation activities, no regard for blood donation as an important activity	1. I really don't think about donating blood 2. Blood donation is something I rarely think about 3. I really don't have clear feelings about donating blood	(C. France, 2014, 2017; L. Williams, 2019)
2	External regulation	Behavior that is externally regulated (want reward or avoid 3 shame , punishment)	1. I donated blood for a gift as a thank you 2. Feeling ashamed of friends when they don't participate in blood donation activities 3. Donate because someone mocks you if you don't donate.	(C. France et al., 2019; Kasraian & Maghsudlu, 2012; Ryan & Deci, 2020b)
3	Introjected Regulation	Avoiding guilt or boosting the ego	1. I feel guilty if I don't donate 2. I feel bad about myself when I don't participate in donor activities 3. I will feel like a donor if I don't donate blood	(C. France, 2014 (C. France, 2017))

4	<i>Identified regulation</i>	behavior is seen as leading to important and valuable outcomes	1. Blood donation helps other people's health 2. Blood donation is an important activity for humanity 3. Blood donation is a charitable activity for the good of others	(C. France, 2014, 2017; Mohammed & Essel, 2018) Ryan & Deci, 2020b
5	<i>Integrated regulation</i>	important things and are part of a larger system of needs in behavior, values, and self-identity (France et al., 2019),	1. I believe that donating blood is a very important aspect of my life 2. Blood donation is in accordance with my life goals 3. Blood donation is very important to me	(C. France, 2014, 2017)
6	<i>Intrinsic Regulation</i>	namely the behavior of donating blood because it becomes satisfaction or pleasure (France et al., 2019)	1. I am happy to donate blood 2. For me, donating blood is more than just donating 3. Donate satisfaction for me	(C. France, 2014, 2017)

DISCUSSION

1. Amotivation

In Christopher R. France's research (C. France, 2014) amotivation has support for blood donors. The variable which is defined as less motivated becomes the influential variable. Someone who donates has also thought about not donating blood. Blood donation is something that is rarely thought about or donors do not care about donors. According to this researcher, one strategy to increase motivation is to apply the principle of motivational interviews during follow-up communications with new donors. The dialogue method needs to be developed as centered guidance to strengthen motivation. The individual approach encourages donors to reflect on their motivations regarding values, personal goals to identify perceived barriers to further donations. The results of the study explain that someone who has been given motivation before donors will have a more positive attitude towards donations.

Another study from LA William (L. Williams, 2019) found that amotivation has a significant negative direct effect on donor intentions. Amotivation is the first continuum in self-determination theory so it becomes important to deepen it so that someone is motivated. Furthermore, Christopher R. France (C. France, 2017) gave the results of a motivational study as having no intention to donate, not having competence, or not believing that the act of donating blood would have the desired effect. France explained that to increase motivation it is necessary to design changes in blood donor behavior which are seen as unattractive. According to this theory, there are three basic ways to increase motivation in human needs, namely relatedness, competence, and autonomy.

2. External Regulations

Christopher R. France's research (C. France, 2014) obtained external regulatory results which are regulations because rewards have a significant influence on donor intentions. France conducted a double study first at the University of NYBC on frequent donors and a subsequent study at the University of Ohio so that the motivational structure of these six factors could be replicated across a wide sample.

Another study from LA William (L. Williams, 2019) found that it did not have a significant direct effect on donor intentions. External regulation becomes a variable that has no direct effect. This means that if donor triggers such as gifts do not exist, the donor will stop donating. The motivation from this external regulation is the second continuum in self-determination theory so it is necessary to carry out donor guidance interventions in the future so that someone is motivated. Furthermore, Christopher R. France (C. France, 2017) provides the results of external regulatory research where behavior is carried out to achieve external rewards. Donate for gifts such as t-shirts, bottles, or other donated gifts.

3. Introjected Regulation

Regulation of motivation because of someone's guilt or ego if they don't help people in need. Christopher R. France's research (C. France, 2014) shows that motivation to avoid guilt has a direct influence on the

intention to donate. This often happens when family or friends are in need as a method of avoiding guilt to motivate people to donate. Another study from LA William (L. Williams, 2019) found that introjected regulation has a significant positive direct effect on donor intentions. Christopher R. France (C. France, 2017) gave the results of introjected regulation research where the behavior of donating blood is to avoid feeling guilty or to increase one's ego so that one does not regret or be ashamed.

4. Identified Regulations

Christopher R. France (C. France, 2014) provides results of regulations identified as regulations that affect the intention to donate blood. Regulation is motivated by perceived interests. Shamsudeen Mohammad and Harry Barton Essel's (Mohammed & Essel, 2018) motivation to donate because they want to help people they know is the highest motivation from a study of 350 respondents. C. France (2017) explained that identification regulations are identified regulations that illustrate that blood donation is important and has values such as health values or helping others. The values that apply in society, such as giving charity or doing good to others, are forming variables and are worthy of being developed as a method of fostering motivation in donating. So that donors as co-producers help voluntarily so that sufficient blood is fulfilled and actively participate in efforts to improve the quality and quantity of blood.

5. Integrated Regulations

Motivation according to coherence with personal values has an influence on the intention to donate blood is the result of a study by France (2014). The motivation is because blood donors have compatibility with life goals and personal values such as donating blood according to a life philosophy that emphasizes human values. France (2017) explained that interventions that connect with like-minded colleagues can add to the linkages that fundamentally make blood donation a more motivated behavior.

6. Intrinsic Regulations

This is the most influential regulation according to all research results both France, (C. France, 2014) Willaam (L. A. Williams et al., 2019). Regulations based on the joy that donors have, the joy of donating and enjoying the humanitarian process.

CONCLUSION

Donors are not only consumers of the Indonesian Red Cross as a blood supply organization, but co-producers and co-participants whose existence is a partner in producing blood. Increasing the number of donors as an effort to increase the availability of blood by increasing the motivation to donate through self-determination theory has been proven from various studies reviewed.

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