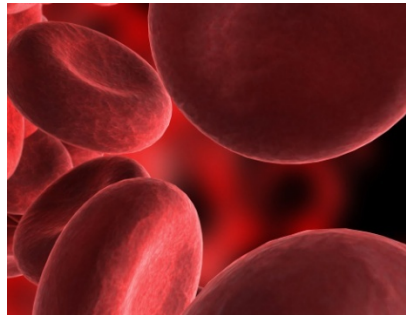




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**STUDY ON  
BLOOD DONATION BEHAVIOR IN GREECE**



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## **Abstract**

Blood donation represents voluntary behavior that states big importance for the society being directly connected to people's lives. In order to meet the blood need donation organizations are facing a challenge to retain and attract new donors. Being familiar with donor behavior, influential factors and donation decision making process represents crucial importance for the implementation of the task.

The study aims to investigate Greek individuals' attitude and intention to blood donation based on the Theory of Planned Behavior, identify the main factors that influence the donation behavior, like altruism, knowledge, self identity, moral norm, incentives, benefits and costs, subjective and descriptive norms, perceived behavioral control and self efficacy and propose a model adjusted to actual environment and cultural characteristics of the Greek population. For the disclosure of all possible covered aspects and better identification of variations and patterns of blood donation behavior qualitative methodology has been used.

The study has revealed that the following factors like altruism, knowledge, self identity, moral norm, incentives, benefits and costs, subjective and descriptive norm, perceived behavioral control and self efficacy play role in donation decision. Some new influential factors, like organizational cost, health related benefits and emotional issues have been also uncovered.

**Key words: Theory of Planned Behavior, attitude, intention, behavior, subjective norm, perceived behavioral control, altruism, knowledge, self identity, moral norm, incentives, benefits, costs, descriptive norm, and self efficacy.**

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## **Chapter 1 – Introduction**

Blood donation is an activity directly related to the people's lives. Coming from the fact that it is prohibited to take money or other monetary compensation for donating blood (Lyle, et. al., 2009), the supply totally depends on the donors who are volunteering time and blood for the sake of others.

Compared to other volunteering activities (e.g. the active membership to voluntary associations), blood donation is less time spending and brings fewer benefits to the donor being anonymous and unrequited by its character. Social contacts and positive social feedback, provided by the membership of voluntary organization, is unlikely to gain from blood donation (Gispén, 2004), consequently, blood donation is assumed to be connected more with the intrinsic reward of the donor.

Blood donors can be mainly grouped into three categories: voluntary, family replacement and remunerated (Politis, 2000). In Greece the greater part of blood donors are family and friend replacement donors (Mandalaki, 1985; Politi, 1986; Riga, 1986) that unlike altruistic donors donate blood sporadically or routinely. The share of donations made by family and friend replacement donors is more than 50% of the entire blood bank reserves (Chliaoutakis, et. al., 1994). The high amount of family replenishment donors creates difficulties in managing the blood supply. Besides, this kind of donation builds pressure on the family members who are trying to find the blood for the patient in need. In comparison with family replacement donors volunteers give larger amount of blood on more regular bases, which results in more stable blood provision (Marantidou, et. al., 2007).

In the historical path of the blood donation in Greece 1979 year was significant, as the functioning of private blood donation banks were stopped (Chliaoutakis, et. al., 1994). This act aimed to increase the safety of the blood supply as the blood product from the private organizations could be characterized by the risk of different blood transferable diseases, because the paid donor could belong to low social economical class and could pursue a non respectable life style (Politis, 2000). The change in blood donation system resulted to

starting various promotional actions for voluntary blood donation. Four leading programs have mainly been involved in the promotional actions (Rivieri-Livieratou, 1989):

- Marketing communication campaigns in different media vehicles (such as printed media and small number of TV commercials);
- Educational projects for school;
- Active participation of health visitors and medical personnel in raising the knowledge about blood donation;
- Improving the incentives for blood donors. Three major incentives were introduced: one day exemption from job duty for the donor, two days military leave in case of service, and the establishment of identification card that gives priority to the donor's family member for the access of blood transfusion in case of emergency.

These actions resulted in an increase of the number of donors by 13% (from 7.1% to 20.1%, during 1979-1988) (Rivieri-Livieratou, 1989).

In 2009 Greece represented the country with one of the highest level of Blood donors in EU together with the Republic of Cyprus. The percentage of blood donors was 51% (European Commission, 2010). In relevance, the demand on blood is high related to considerably high number of Thalassaemia and incredibly high rate of traffic incidents (Chliaoutakis, et. al., 1994, Marantidou, et. al., 2007).

There are two ways to increase blood donation: increase the rate of donation activity and increase the number of people who donate. There is some limitation for the increased rate of donation like age, limited number of the donations during the year and health problems (Reid & Wood, 2008). Therefore it is very important to attract new volunteer donors in the donor pull. That is connected to the knowledge of the relevant and actual information about the behavior of donors and non donors and factors influencing decision on becoming and remaining blood donor (Chliaoutakis, et. al., 1994).

Various researches have proved that socio demographic factors can not predict the blood donation behavior. None of the researches propose the variables that would precisely explain the blood donation decision making process (Holdershaw, et. al., 2007). For this reason and also for covering cultural characteristics of Greek donor behavior, we chose the

qualitative method of the study. Thus, the aim of the research is to investigate Greek individuals' attitude towards blood donation, propose a model of blood donation behavior and determine the major factors that may inhibit blood donation.

The research will be beneficial for the blood collecting organizations in order to promote voluntary behavior in Greece, establish new promotional programs assisting better management and extension of the blood banks. Besides, it will serve to raise overall understanding of blood donor and non donor behavior in order to assist the positive development of the attitude towards blood donation with favorable outcomes for the community as a whole.

The thesis is organized as follows: Chapter 1 consists of the introduction, the actuality of the problem, the aim and focus of the study and the possible use of it, as well as the organization and the structure of the study; Chapter 2 reviews the Theory of Planned Behavior and the main influential factors of blood donation based on the existing theoretical and empirical findings; Chapter 3 presents the research methods, sampling, technique of data collection and analysis; Chapter 4 presents the findings of the study; Chapter 5 discusses the findings in accordance to the existed literature; Chapter 6 summarizes the main findings and presents managerial implications; Chapter 7 deals with the limitations of the study and states the recommendations for further research.



## **Chapter 2 - Literature review**

### **2.1 Introduction**

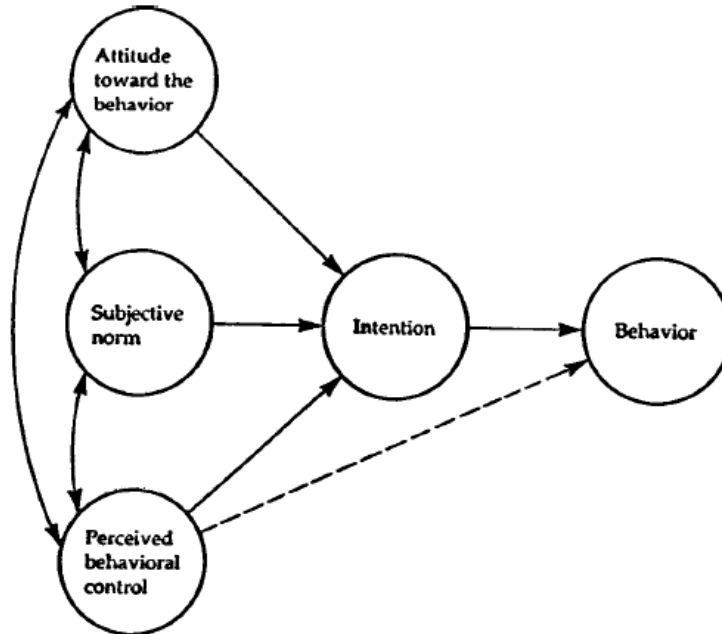
This chapter presents theoretical findings on blood donation behavior based on the model of Theory of Planned Behavior. The elements of the model: attitude, subjective norm and perceived behavioral control are analyzed separately together with the influential factors.

### **2.2 The Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) proposed by Ajzen (1991) represents a central pillar in the field of blood donation (Lemmens, et. al., 2009) (see figure 1). The figure below embodies the model of human behavior representing intention as the central aspect and the main determiner of the behavior. There are three independent influencers of intention: attitude towards the behavior, subjective norm and perceived behavioral control (PBP).

It is proposed that individual's intention to donate blood appears the single determiner of blood donation activity (Masser, et. al., 2009). Attitude represents a person's assessment of an action. Subjective norm is a person's imaginary social support of the action. As for the perceived behavioral control, it represents a person's perception of possessing control over the action driven by the past experience and anticipated barriers (Ajzen, 1991).

Figure 1. The theory of planned behavior, as adopted from Ajzen (1991, p.182):



### 2.3 Attitude

It is suggested that positive attitude is a predictive indicator of blood donation (Griffin & O’Cass, 2007; Holdershaw et. al., 2007).

Attitude could be divided into affective and cognitive components that have different influence on intention. Unlike affective attitude that is based on emotions, cognitive component is based on the judges and other cognitive assessments (Berg, et. al., 2005). For example the study of non-donors by Lemmens, et. al., (2009) revealed that the affective attitude is more strongly related to the intention of blood donation than the cognitive. It is suggested that the decision process starts from cognition and later causes affect and behavior while being influenced by different factors, like positive attitude, risks, values and knowledge (Adam & Soutar, 1999). It is proposed that attitude is also predisposed by the moral norm. The sense of moral obligation appeared to be one of the most prominent predictors of blood donation (Masser, et. al., 2009).

Masser, et. al., (2009) revealed self-identity to be one of the indirect determiners for blood donation intention through attitude (Masser, et. al., 2009). Other empirical study proved self identity to be in strong relationship with intention to donate (Giles, et. al., 2003). It's worth mentioning that self identity is developed through enduring donation, which is connected to the involvement and self description as a donor (Piliavin & Callero, 1991). Symbolic perception of blood also is suggested to influence blood donor, coming from the fact that blood represents one of the strong symbols having hazardous and also therapeutic meaning (Chliaoutakis, et. al., 1994).

Some researchers found that general knowledge about donation has positive impact on donation activity (Chliaoutakis, et. al., 1994). Other study confirmed the weight of knowledge on willingness to donate through positive influence on attitude and negative influence on alleged health risk (Adam & Soutar, 1999).

Relative past experience of emotionally charged situation, views as “affective factor” is also suggested to have an influence on blood donation attitude. Study revealed that those, who have appeared in the emotionally charged or emergency situations, donate more (Chliaoutakis, et. al., 1994).

Ajzen (1991, p. 197) suggest that “beliefs concerning consequences of a behavior are viewed as determining attitudes toward the behavior”. According to Rodríguez & Cabasés Hita (2009/01) there are three possible consequences resulting from the comparison of costs and benefits of donation:

- If the benefits enlarge the costs, the person is positive towards blood donation;
- If the costs are bigger the person feels worth and, consequently, develops negative attitude;
- If the benefits are equal, the person is neutral towards blood donation.

Adam and Soutar (1999) have identified four possible attitudinal dimensions: “Replacement and assurance” represent positive attitude related to the fact that a healthy person is obliged to help people in need and give his blood in return to the help provided by others before, another three negative attitudes like “Psychological fears”, “Inconvenience” and “Health risk” are associated to the possible cost of blood donation mentioned below.

## **2. 4 Blood donation benefits**

Social recognition is found to be one of the strongest influencers of blood donation (Chliaoutakis, et. al., 1994). Lyle, et. al., (2009) argue that blood donors get personal benefits by demonstrating generosity and body health to the society. Indeed, the empirical study reveals that blood donors are associates with healthy and more generous people both by non donors and those who donate (Lyle, et. al., 2009).

However, some of the benefits might be gained from increasing the wellbeing of others, thus viewed as altruistic (Rodríguez & Cabasés Hita, 2009/01). According to empirical study donators may benefit from the fact that they have improved the health of others by their donation (Rodríguez & Cabasés Hita, 2009/01) recognizing that the donation might save somebody's life and someday, every person might confront the same problem in their lives (Lyle, et. al., 2009).

## **2. 5 Altruism**

It is suggested that a person might donate blood because of the altruistic intentions not connected to the personal benefits (Lyle, et. al., 2009).

Altruism can be defined as an “unselfish concern for the welfare of others” (Rodríguez & Cabasés Hita, 2009/01. P.4) People differ by their wish to contribute to the well being of the others, thus by the level of altruism (Gispén, 2004). Altruism is suggested to have background in the family and nurture, or personality characteristics, formulated in the early life of a person (Penner et. al., 1995). Psychologists propose that there are people with “altruistic personalities” who seem to be concerned more about social problems than others (Allen & Rushton, 1983). Griffin and O’Cass (2007) revealed that people who are more concerned with social issues are more likely to become blood donors.

Blood donation together with post mortem organ donation and charitable giving is considered to be among the most altruistic decisions of volunteering as it is not connected to any monetary incentive or social approval (Gispén, 2004). Reid and Wood (2008) reveal

that those with high intention of blood donation are characterized by the higher level of altruism and tend to experience personal satisfaction. The empirical study (Griffin & O’Cass, 2007) revealed that altruism has relation on intention thought the moral norm. Thus, being altruistic could direct to the higher moral norm that may influence blood donation.

There are several types of altruism proposed: “kin altruism” is a model of altruistic action directed toward the family members and familiars, “parochial altruism” is an action directed towards the members of the certain social group but not to the others (Rodríguez & Cabasés Hita, 2009/01), According to “Joy of giving” model, charitable donation is done for maximizing the wellbeing of the others. The “worm glow” model (Andreoni, 1990) indicates that donation is done for the act of giving itself, which stimulates the donor to think well about him/her. The study proposed that people may experience positive feelings, like feelings of pride after donation (Lemmens, et. al., 2009).

## **2. 6 Blood donation costs**

One of the negative influencers of blood donation are considered to be perceived risks (Barkworth, et. al., 2002) Adam and Soutar (1999) have grouped the risks connected to blood donation into following categories:

- 1) “Inconvenience risk”, like the time loss and location inconvenience;
- 2) “Psychological fears” presented as negligible health inconveniences connected with blood donation, such as needle pain, dizziness and fear of blood;
- 3) “Health risk” connected to more serious health problems, such as being infected with HIV or other transmittable diseases. This relates to general safety of blood donation procedures (Adam & Soutar 1999). It is proposed that a person having a trust in hygienic organization of the donation procedure represents the bigger chance to be a donor (Rodríguez & Cabasés Hita, 2009/01). Appropriate management of blood donation facilities and the whole system also appeared to be important factors influencing blood donation (Chliaoutakis, et. al., 1994);

- 4) “Social risk” is connected with the negative reaction of families, peer groups or religious communities. Adam and Soutar (1999) proved social risk to be of the minor importance for blood donation behavior. Gispén, (2004) suggests that blood donation doesn’t appear the topic of everyday discussion and religious teaching is mainly free of any statements against blood donation.

The empirical study confirmed that psychological fears (fear of needles, blood and pain) were among the highest concerns both for donors and non donors (Lyle, et. al., 2009) and one of the most important negative factors influencing donation (Adam & Soutar, 1999). Donation anxiety connected to the health inconvenience is also presented to be negatively related to blood donation intention (Masser, et. al., 2009).

It is suggested that the psychological fears depend on the intent to donate blood: The study between non donors having high and low intention to donate showed that the higher intenders experienced less fears (Reid & Wood, 2008). Another study has presented that the perception of the operational efficiency of blood donation, “fear of fainting” and “fear of being sick” distinguished people with positive and negative intention to donate blood (Giles, et. al., 2003).

Lyle, et. al., (2009) revealed time loss and other inconveniences connected to donation to be less important and of minor influencers on the donation decision. These barriers were also correlated with intention: Reid and Wood (2008) showed that the higher intenders experienced less time barriers, while the travel distance had high mean indicating that this is a potential barrier both for the high intenders and non high intenders.

The fear of being infected with the transmittable disease was presented low both by donors and non donors (Marantidou, et. al., 2007), although it is proved to be the high influencer of donation decision (Adam & Soutar, 1999). Another study showed that donors are more troubled by the possible undesirable health inconveniences (Lyle, et. al., 2009).

It is proposed that donors represent fewer barriers, like fear, because of their experience with the donation activity (Griffin & O’Cass, 2007; Lyle, et. al., 2009). The empirical study confirms that people who hadn’t donated for a long time experienced higher percentage of all types of risks than people who have recently gone through donation

experience (Barkworth, et. al., 2002; Holdershaw, et. al., 2007). It is also mentionable that these risks were connected to the regularity of donation (Barkworth, et. al., 2002).

## **2. 7 Subjective norm**

Subjective norm is considered to be one of the main influencers of the behavioral intention (Ajzen, 1991). Empirical study characterizes subjective norm as an inefficient factor for straight impact on blood donation (Masser, et. al., 2009). Besides the subjective norm, intentions may be influenced by the descriptive norm that represents the person's perception about other's performance of the similar behavior. Other empirical evidence suggests that the descriptive norm could be stronger predictor of blood donation among non-donors (Lemmens, et. al., 2009). Thus an individual's awareness about blood donation being a widespread act may influence his/her decision to a become blood donor.

## **2. 8 Perceived behavioral control**

Perceived Behavioral Control is suggested to be one of the strongest predictors of blood donation behavior (Holdershaw, et. al., 2007). Perceived Behavioral Control is closely related to self efficacy. Self efficacy is a person's perception of his ability to successfully perform the target behavior (Bandura, 1977). It can be viewed as a level to which the behavior is hard or easy for the individual. Self-efficacy turned to be more closely related to blood donation than Perceived Behavioral Control (Lemmens, et. al., 2009) and one of the strongest influencers of blood donation intention (Giles, et. al., 2003, Masser, et. al., 2009)

Reid & Wood (2008) separated non donors with higher and lower intention to donate. They discovered that both subjective norm and perceived behavioral control were more strongly represented among higher then lower intenders. Thus, the non donors with higher intention to donate represent the higher believe that the others will approve the decision and at the same time they possess higher control over their ability to donate blood.

## 2.9 Incentives

“Intentions are assumed to capture the motivational factors that influence a behavior” (Ajzen 1991 p.181). The motivational factors, like incentive have been suggested to be the potential solution for the need to resolve blood scarcity problems. (Rodríguez & Cabasés Hita, 2009/01).

However, incentives might not always be stimulating. Donors having altruistic intent may be dispirited to give blood (Abolghasemi, et. al., 2010). Experiment conducted by Mellström and Johannesson (2008) demonstrates that the introduction of monetary compensation may reduce the number of donors, while the possibility to give money for the charity may elevate the number of donors up. Thus, monetary compensation discharges people from the possibility of signaling altruism to the society by the behavior (Bénabou & Tirole, 2006). Provision of incentives to donors may also make some donors think that the blood banks do not pursue philanthropic, but self-interested goals (Abolghasemi, et. al., 2010).

Offering material compensation and other equivalent incentives may negatively influence the safety of blood (Abolghasemi, et. al., 2010) influencing people to hide information regarding their health status (Marantidou, et. al., 2007). The same goes for the incentives of the free medical tests. Goette and Stutzer (2008) revealed that introducing the incentive of the free cholesterol test has slightly increased the number of rejected donors with the health problems. Similar finding were reached by the Hellenic Blood Transfusion Society (HBTS). HBTS revealed that some percentage of volunteers have hidden information on their health in order to get paid leave from work or free blood testing (Marantidou, et. al., 2007). Social approval like provision of medals (Rodríguez & Cabasés Hita, 2009/01) or T-shirts being of small material cost (Lyle, et. al., 2009) may help convey positive messages to the society and serve as a stimulator for donor. Stutzer, et. al., (2006) propose “Active decision” to be one of the stimulators. “Active decision” is referred to a situation when the potential donors are confronted to spontaneous decision to donate blood. The study revealed this to be effective for the people who have small knowledge about blood



donation. Active decision had negative effect on the people, being well aware of the donation issue, (Stutzer, et. al., 2006).

## **2. 10 Independent socio-demographic variables**

Empirical evidence supports the relationship among blood donation and demographics: Males suggested being the dominant group of Greek donors (Chliaoutakis, et. al., 1994). Similarly, the European Commission in 2010 (European Commission, 2010) reports that males donate blood more than women within European Union (44% compared to 31%).

It is proposed that younger people are more likely to give blood than older people (Holdershaw, et. al., 2007). In the European Union countries, the age distribution of blood donors has the significant skew on 40-54 age groups (European Commission, 2010). The study conducted between the high and low intenders to donate showed that the higher intenders were younger respondents between 20-49 age categories (Reid & Wood, 2008).

Empirical study supports direct contact between education and blood donation activity (Gipsen, 2004). European commission (2010) survey revealed that people with higher level of education and managerial jobs donate more than people with lower education level and/or those who are unemployed, looking after home or retired. This was confirmed by the empirical study of Reid and Wood (2008) between high and low intenders showing that higher intenders had higher income, education and higher professional occupation. Low intenders, on the other hand, had only school or college diplomas, being occupied by looking after the house, laboring, or self employed.

Gipsen (2004) has found that people who have higher household income are characterized with the higher level of abandonees of blood donation, this is explained by the theory that the opportunity cost for the time spent for the blood donation is higher for the people with higher income.

## **Chapter 3 - Research methodology**

### **3.1 Introduction**

This chapter presents research methodology of the study. It focuses on the adopted research methods, sampling, data collection process and data analysis. Each of these elements is discussed below as follows.

### **3.2 Research methods**

Qualitative study was conducted on blood donation behavior in Greece. Qualitative research methods were employed, as the most proper techniques for data collection and analysis in the study of this nature. Unlike the quantitative research that relates to the statistical measurements and seeks to investigate the relationship between certain quantifiable variables, the qualitative research tools emphasize basically on how social experience is generated, how the meaning is attributed to it and reveals the relationship between processes (Norman, et. al., 2003). The basis for applying the qualitative research is: 1) It deals with life experiences, psychological feelings, emotional conditions, behaviors and applies non-statistical interpretation method to investigate concepts and their interrelation (Strauss & Corbin, 1998); 2) It creates possibility to study phenomenon as well as the allied experiences of the study in the real setting. Distinctive advantages of deploying the qualitative research methods are following: 1) Attempt to explore the sense and characteristics of people's life experiences; 2) Study the fields and areas that need deeper investigation; 3) Make possible to disclose intrinsic features of the phenomena and understand them in a more profound way that is not affordable by quantifiable methods (Strauss & Corbin, 1998). In-depth face to face interviewing method was selected among different qualitative methods, like focus groups and projective techniques (Norman, et. al., 2003). From the variety of qualitative research approaches, the grounded theory approach was employed for the study. It's noteworthy, that in-depth face to face interviewing method remarkably suits the grounded theory method for the following reasons: 1) Interviewer

possesses more flexibility of fluctuation in the scope of accessible data from the interviewee's side; 2) The altitude of Interviewer's control mechanism over the process of building-up the data is higher than it can be in other methods, like ethnography and textual analysis (Charmaz, 2003). The advantages gained by applying the qualitative interviewing method lies in: 1) The opportunity of in-depth and open-ended investigation of one particular side of life in which the interviewee is well-aware; 2) Interviewer is able to draw out the subjective views of this person's life; 3) Interviewer works out the views and on a sequent base defines the relevant topic under which questions are put down; 4) Ideas and topics come out during interview; 5) Interviewer is able to track newly emerged topics and opinions (Charmaz, 2003). To gain new and deep understanding, and maintain the fluent stream of necessary data, the probing manner questions were asked to the interviewees. By providing the certain logical order of projected questions, the interview tried first, to identify the socio-demographic characteristics of the sample, then smoothly moved to explore the interviewees' attitude towards blood donation and finally ended with investigation of Greek blood donor and non donor behavior. (Please visit appendix # 1: The questioners for blood donors and non donors).

### **3.3 Sample**

The sample of 31 interviewees, with a distribution of 16 donors and 15 non donors (16/15), both males and females was drawn for the in-depth face to face interviews for the study. The age category range was defined from 18 to 65. The attempt was made to cover all incorporated socio-demographic and educational pools, anticipating the equal distribution for both donors and non donors. The random sample of the study comprised: 16 employees, 7 students, 2 working students, 5 self-employed and 1 unemployed (Please visit appendix # 2: The socio demographic characteristics of the sample of interviewees).

### **3.4 Data collection process**

For this qualitative study, there were conducted 31 in-depth face to face interviews, with Greek donors and non donors, run by two authors of the study. The interviews held in August, 2010 in Thessaloniki, Greece and lasted from 20 to 45 minutes. On random base the interviewees were reached at the following places: universities, shops, squares. Besides, they were randomly chosen among neighbors and friends. The data collection process ran in 2 stages: pilot testing and final research. Pilot testing was made up with 4 interviewees among which were 2 donors and 2 non donors. The aim of the process was to test the guide questionnaire's scope and quality and avoid conceptual biases. The supportive recommendations and sequential modifications were adopted for conducting the final research. All the interviews were recorded on mobile phone recorder or personal computer and were transcribed. The interviews were held in English. Interviews were held in adequate physical and emotional situations free of any possible pressing factor that could influence interviewees' open response. Every interviewee was explained about the aim of the research and brief information on the interviewers was presented. All of them were asked for participation in the research and for granting the right to record. The attempt was made to assure objective conduction of the research: the respondents were given appropriate circumstance to speak freely with the interviewers, whether it was run in an open manner, with eagerness to listen, by "giving voice" to interviewees and represent the data from their sayings in an accurate manner (Strauss & Corbin, 1998). The participation in the interview was totally based on the free will of the interviewees and the right of free withdrawal and at any time. The confidentiality issue was explained and assured to all participants of the research and at the end the interviewers' appreciation and thankfulness towards the research participants were expressed.

### 3.5 Data analysis

From variety of methods of analyzing, systemizing and interpreting of the qualitative data, Interpretative practice was applied for deep understanding of the sense of research theme (Norman, et. al., 2003).

Data analysis of the research passed through all stages of the procedures for interpretation and systematization of the data. This stage combined the steps as follows: 1. Major concepts were formulated according to the Theory of Planned Behavior, discussed in literature review part of the study; 2. Data diminution was processed; 3. The categories were identified according to their belongings and scope; 4. Data was applied to the preliminary identified categories through sequence of proposed statements (Strauss & Corbin, 1998). “The grounded theory” was used for the analytical process of this qualitative study. The specific insight of this theory lies in the fact that the field of interest is determined initially and the theory is derived from the process of the data systematization and analysis and is not founded on pre-anticipated theory, unless the goal of the research addresses the extension outlook of it. This study was based on the Theory of Planned Behavior and aimed the disclosure of the potential extension of the proposed theory model. The reasons why the grounded model was chosen, as Strauss and Corbin (1998) stated is as follows: 1) Approach creates possibility to reflect “reality” in the field of study and avoids standard rely on the approved opinions on different life experiences; 2) As far, the extension of the theory or new theory is resultant from the data, the true insight of each theme in the study is brought out on the air; 3) The applicability of researcher’s creativity as one of the significant factors combined with grounded notions for this research approach, creates path to the enhanced implications from the research frames. The analytical path of the study went through the following: Greek donors and non donors’ behavior and all the factors influencing their behavior was investigated, adjusted analysis was made based on the model, proposed by the Theory of Planned Behavior and finally extended version of the Theory of Planned Behavior was proposed by this study.

## **Chapter 4 - Research findings**

### **4.1 Introduction**

This chapter presents the results of the empirical study of donors and non donors on attitude towards blood donation and the factors influencing blood donation behavior. The general attitude appeared to be positive both for donors and non donors. Intentions to blood donation appeared to be influenced by interviewees' altruism, relative past experience, knowledge, self identity, moral norm, incentives, benefits and costs of blood donation, while subjective norm, descriptive norm, self efficacy and perceived behavioral control also had their impact.

Findings revealed that the donors and non donors could be further divided into two different groupings. These groups varied according to the attitude and the intention to donate as well as were driven by different influential factors. The first group represents altruistic volunteers which are or were registered as blood donors and have the regular donation experience (later mentioned as RVD - registered volunteer donors). The members of other group represent occasional donors giving blood infrequently, which accumulates nonregistered volunteer donors (VD), family/friend replenishment donors (FFRD) and army donors (AD).

Among non donors study identified two major groups: non donors who cannot give blood because of health problems and those who are in health condition to donate blood. The follow-up distributions of non donors within both major groups is based on the intention to give blood and are as follows: non donors with health problems and intention to donate (NDHI), non donors with health problems and no intention to donate (NDHNI), non donors without health problems that have intention to donate (NDI) and non donors without health problems and no intention to donate (NDNI).

## 4.2 Attitude

Study revealed that general attitude towards blood donation activity is positive. Among donors blood donation was described as good and necessary activity directly connected to people's life and didn't subsequently vary between regular and occasional donors. The importance of blood donation was also highly perceived by non donors, although non donors who cannot give blood because of their health problems expressed higher level of positive attitude than those who are in appropriate health condition to donate.

## 4.3 Altruism

Almost all of the registered volunteer donors were reunited under altruistic attitude towards blood donation representing concern for others based on the personal feelings, perceptions and wish to help:

*Nothing else, only my personal wish, that with my movement I can do something good for others... just my mind!*

(RVD, Male, 33)

*Well, once you start...There is nothing really special... As I said it depends how you take it, how you perceive it, It is something quite easy to do, it doesn't really require much, you can help others lives.*

(RVD, Male 35)

There has been found a trend between altruistic personality and the intention to donate. Most of the altruistic donors have made decision on blood donation deliberately, thus possessed high intention. They didn't need any occasional or facilitative circumstances, but were acting from the internal desire to care for the society. One of the regular donors affirmed:

*I started when I was 18 years old. I went to the hospital, so I registered there... ...I do not remember when I got influenced. I just felt that I wanted to do it... I mean some people might need it more, I can give blood, so why not!*

(RVD, Female, 31)

It is noteworthy that altruistic underpinning was uncovered amongst non donors as well. Half of the non donors expressed altruistic mindset towards blood donation activity and possessed high intention to donate blood, but they were unable to do it because of the health problems. They reported genuine will to help others without payback benefits. One of the non donors with health problem stated:

*From 18 to 20 I wanted to become a blood donor and to have a card, so I could go and give blood... I wanted to be a donor... ...I perceive myself as Volunteer donor. For me it's simple, you give blood and you know that it will save other people, so there is nothing behind to think about it. And you give it because you want it, and you don't think...*

(NDHI, Female, 37)

The altruistic roots appeared to be addressed to the personal feelings of donors and non donors, causing improved emotional condition by assisting the counterpart in need:

*Well, it would actually make me feel better, because, you know... it would make me feel that I am contributing to some people that have need for blood and it is a matter of life and death for them. That's the only thing what I can think of.*

(NDI, Male, 28)

*Just to feel good. That's why we, blood donors, call ourselves volunteers. Just to do something good!*

(RVD, Female, 24)

On the other hand the occasional donors and non donors who didn't have health problems less vividly presented altruistic desire as driving force for blood donation. The resisting



factors for blood donation (lack of time, fear and etc.) were seen as an imperative by most of them. They appeared to be more motivated by some other influential factors (incentives, need for blood for a family or friend and etc). One of the non altruistic donors stated:

*I have given blood only for people I know, for some friends, for my friend's friends. For example, if a friend tells me: "my parent or my friend needs blood"- Then OK! But only for this! Without reason how? No, never...*

(FFRD, Male 58)

There has been found the direct relationship between blood donation and other volunteering activities. It appeared that the big majority of volunteering registered and some of non registered donors were pursuing or searching for active social life, (e.g. active volunteering, post mortem organ donation, plasma donation, blood cells donation), clarifying their wish of social involvement coming from the family roots, moral obligation and believes:

*I was always in my life socially involved, this is something my family has also, my mother had been also very socially involved for the free time she has due to her work and family. There is also a great tradition in my family, in my grandfather's and there is no other way: I will continue always, if not blood donator, something else, I will always continue to be socially active.*

(VRD, Male, 35)

*Yes, that's right. I believe that people should help each other, should give something that other people need more for their life, concerning my other activities; I did it because I had much free time. So because of my work, because of being teacher, I had to do other things in order to educate my children, my pupils and to be an active member of the society where I live.*

(VRD, Female, 40)

The same trend was noticed between the altruistic non donors who were unable to donate blood because of the health problems. They were deliberately looking for many

possibilities for volunteering unlike non altruistic non donors who based their volunteering decisions mainly on occasions. One of the altruistic non donors presented her social involvement driven by the desire to help other people in need:

*Many things I did in my life about that... cooking for orphan children... Most in my life I like helping children and when I found the chance to help the children I did it. I was in a group with student who wanted to make the master about people with Asthma; I was in that group, yes, many things... When old people need me I go, I have few old people and I go and spend little time with them...*

(NDHI, Female, 50)

#### **4.4 Relative past experience**

The experience of the necessity of blood in the past was named as one of the initiators of blood donation activity by some of the volunteer and non volunteer donors. One of the volunteer blood donors declared that she always knew about scarcity of blood in Greece but a driving factor for becoming regular donor was the need of blood for her grandfather. It can be presumed that tragic experience in the past makes people more sensitive towards human pain and facilitates blood donation:

*...The incentive for everyone is that if you had an ill person in the family and he needed blood and there was not blood, and he needed it desperately and you couldn't find, then you say "I will try for my child not to be in this position". For this reason I give blood: In order not to let another child in the world to be in the same position as, for example, my relative.*

(ARD, Female, 24)

The importance of relative past experience was named as strong influential factor by non donors as well. One of non donors declared that the accidental impact played the important role in analyzing the need of blood and directly influenced his attitude towards blood donation:

*Well, it didn't occur to me just out of luck, I had... Some relative of mine had a car accident and there was need for blood, you know that there is no blood bank that can give... you do not know them... It was about ten years ago, so we had to give blood... and I so that there was a need not only for us but for others as well, because the car accidents are number one reason of death here in Greece if I am correct. So I said: "Why not!" It's good for the public... ...but because of temporary health problem I couldn't.*

(NDI, Male, 28)

Some of non donors without health problems, as well occasional donors who mostly have fears connected to blood donation procedure view tragic experience as possible tool to overcome this weakness. The notable point is that the scope of permitted negative accidental case in interviewees' perception is impressive enough. One of the non donors stated:

*Sometimes we need courage, I mean having bad experience to start something. Fortunately, I didn't have such experience in life...*

(NDNI, Female, 21)

The army volunteer donor with fear of needle declared:

*If my friend will need I will give, maybe after this experience I will start giving blood for other persons as well, but I don't know.*

(AD. Male, 34)

#### **4.5 Knowledge**

Some of the volunteer respondents presented that knowledge of the need of blood has formulated a certain attitude towards blood donation and also facilitated the intention to donate. One of the occasional blood donors, who is a doctor, declared that he has been influenced from his university years by the scarcity of blood in Greece:

*I learned about it in the university. Here in Greece, I was studying medicine and I was listening very much about car accidents and the need for blood. So I decided to begin blood giving.*

(VD. Male, 37)

Another regular donor declares that her attitude towards blood donation was formulated during her childhood by the knowledge of the need of blood:

*Since in Greek society we have so many car accidents and we need great quantity of blood I decided that it would be really cool thing to do. I always knew about this since I was little girl, so... just always knew and as soon as I turned 18, or I don't remember... 19, I gave blood, yes!*

(VRD. Female, 24)

One of the non donors declared that the knowledge of the scarcity of blood in Greece, which he has got during the tragic accidental experience, has changed his attitude and intention to donate blood, but because of the health problem he couldn't complete it.

#### **4.6 Self identity**

Self identity, developed through enduring donation and related to the self identification as a donor and involvement, was presented almost in all of the registered regular blood donors showed in following main dimensions:

1) The description of himself/herself as a registered, frequent donor:

*I started giving blood back in Italy, I was a student there and I started around 1998, I think so, I was registered, I had my card as a blood donator, I went regularly, I gave blood three/four times a year, not more, I know it's not allowed.*

(VRD, Male 35)

2) Showing psychological attachment to the hospital the donor is registered at and the preference to give blood at that hospital:

*They do not tell me, I go, whenever I want I just go to a hospital and I just tell them... I am all the time registered in that hospital so I prefer my blood to go there.*

(VRD, Female, 31)

3) Developing collaborative relationship between the hospital and the donor registered in. The relationship included from the donor's part donation of blood and plasma for one specific child on regular bases. The donor owned a personal blood account at the hospital with a possibility of use if needed. This relationship seemed to create involvement and sense of assurance for the donor:

*If my relative or friend needs blood, I will call to the hospital, and will tell them to give some bottles of blood to relatives, I already own some bottles there, they can give like this, as if I gave blood now, I can give blood only in two months, now I can't. I have an account there.*

(VRR, Male, 33)

The interviews amongst non donors didn't reveal self identity as an influential factor. That appears logical, because self identity is assumed to develop through long time blood donation activity that non donors do not possess.

#### **4.7 Moral norm**

Several interviewees, both donors and non donors, presented blood donation as moral activity when showing negative attitude of giving blood for any material or financial benefits:

*It is not very moral to sell blood! We do not sell our blood, we donate our blood!*

(VD. Male, 37)

*If I am giving blood for day offs, this means that I am doing it for self, it's not good!*

(NDI, Male, 18)

Moral norm was named as a factor influencing attitude by one of the altruistic donors as well:

*This is something that everything has to do... I mean, you have blood – give it and maybe one day you and some other person will need it.*

(VRD, Female, 31)

The sense of moral obligation was presented to play role for one of the family/friends replenishment and army donors in two directions: 1) Obligation towards a relative that stimulated family/friend replenishment donor behavior. 2) Social responsibility towards the country that took part in army donation, this type of moral obligation seemed to bring very few psychological benefits:

*There are some other factors that are, for example, when it's necessary for some relatives, when you are obliged... you have to do it for some relatives! they have the need for blood for the operation for example.*

*Mm, I feel nothing! That I've done my duty, that's all!... ... generally that's social responsibility that you have to help other people in your country.*

(FFRD, AD, Male, 31)

The apprehending of moral norm by almost one third of non donors tended to excite their affirmative attitude towards giving blood. Reasonably, the analysis assumed that moral norm as valued outlook in most cases was recognized by non donors without health problems who intend to give blood in future. By some of the interviewees, the act of donating blood was remarked as human contribution at intercultural and transnational level. Certain non donors underlined the social obligation of each human to donate blood by referring to the empathy and benevolent nature of the blood donation activity:

*It's a kind of philanthropy; it's a good act for the civilization... ..You are contributing to a better society, to a system which cares about other people and not only about the self.*

*(NDI, Male, 19)*

*I think it's very generous act to another person and everybody should be a donor.*

*(NDI, Female, 34)*

It is also mentionable that the intention of these non donors towards blood donation wasn't strong. They named time and inconvenience problems as one of the reasons for not being donors. Thus, we suggest moral norm to be of the low influence on people with low intention to donate blood.

#### **4. 8 Incentives**

General knowledge of incentives was low both for donors and non donors. For both groups one of the most recognizable incentives was the days off from army that interviewees recalled from their past experiences or the experiences of the relatives and friends. Almost every person who has done army donation also mentioned the influence of the incentive on donation decision:

*I gave blood in army, because for giving blood they gave 2 days off, so I did, everybody who wished days off from army gave blood...*

*(AD, Male, 34)*

The possibility to receive blood in future was less easy recognizable, maybe because it is mainly familiar to regular donors only, who directly benefit from the incentive. Nonetheless, when interviewees were informed about blood availability incentives and asked to rank all the incentives according to priority, this incentive was first to be mentioned. It is assumed that people consider the incentive of blood availability in the future more important because of the direct impact on their health:

*Nothing, I don't need any exchange to give blood, like in the army if you give blood they give you 2 days off... ..I will get blood if one day I need, nothing else!*

(NDI, Male, 28)

The general attitude about incentives was positive both for donors and non donors, but they were of the second based priority for all of the regular donors, as well as altruistic non donors who are unable to give blood because of the health problems:

*Yes, there are some days off, yes of course, but that is not priority at least for me. OK, that is for the second based priority. First, I give blood for me because I want to, and, second, if I have the days off that's cool also.*

(VRD, Female, 24)

It seems that occasional donors too, as well as non donors, who do not have problem with health, were more inspired by the act of donation and positive feelings connected to it. If not these attitude, incentive would have little power of influence on donation behavior. When one of the family/friend replenishment donors was asked what would be an incentive for her to donate blood, she stated:

*My happiness only, that I did something important!*

(FFRD, Female, 20)

It appears that incentives do not change attitude towards blood donation, only stimulate behavioral intention if the attitude is positive.

However, incentives might present the first based priority for extremely non altruistic people: One of the occasional donors declared that he has been giving blood from time to time for the sake of the incentive only:

*They told us from the school, that they have the exclusive banks, that our names are there and if our relatives need ever blood you can go to bank and take blood... so, that's why I gave blood... nothing more for me, how can I say?.. No cool no heat, nothing!.. ...*



*If my relative or I ever need blood, even now after these years, if I go to the bank, my name is there, I will ask for blood and they will give me.*

(VD, Male, 45)

Some interviewees noted negative attitude towards incentives: one of the registered altruistic donors has showed negative outlook towards incentive clarifying that an incentive can act as a facilitator to hide information regarding health problems among donors with non altruistic roots and thus create a threat for blood receivers:

*...Also I could have given blood and have received those days of I was still frank to the nurse and I told her that I had had a personal, let's say, encounter or anyway, something personal, and I asked her if this could have had any influence on the blood donation, instead I could have avoided telling her anything and receiving my days of like the rest of the people.*

(VRD, Male, 35)

One non donor with health problem and intention to give blood criticized that incentive can stimulate non philanthropic intention to donate blood:

*For Greek people the day off is a possibility to get advantage... they are not interested to give blood, I don't think this will help.*

(NDHI, Female 37)

Factors confronting individuals to take spontaneous decision to donate blood was suggested being efficient by some of the donors. One of the regular donors stated that his first blood donation was made impulsively, at the university van, after which he liked being a donor and started giving blood on regular bases:

*First time was when I became the student, 18 years old or 19, in the university, they ran volunteer procedure for all the students... and I went there to give blood for the first time and I liked this... being a donor!*

(RVD, Male, 33)

Another occasional donor also presented his first donation as impulsive:

*No, it was spontaneous from the beginning and then I went on gradually.*

(VD, Male, 37)

One more occasional donor presented army donation as the form of impetuous decision, which created interest and later intention to volunteer blood.

*Ok, firstly in the army... I just wanted to... it was something new for me and they also give you some extra benefits for giving blood, so I decided to give.... They give you two days to go of... so I gave blood and I so that it's something not very painful or something like that and after reading and studying about blood donation I learned that it's very good for the health... ...Sometimes you need motive to begin, in blood donation the motive was some days of from the army.*

(AD, VD, Male 27)

## **4. 9 Blood donation benefits**

### ***4.9.1 Psychological benefits of blood donation:***

Most of the donors represented to have psychological satisfaction from donating blood existing mainly in the following forms: emotional calmness, satisfaction, happiness. Big majority of non donors also stated that they would have these feelings if they donated blood:

*It is an emotional calmness and satisfaction.*

(VD, Male, 37)

*I am happy. If I wouldn't feel happy, I wouldn't go.*

(FFRD, Male 37)

Non donors with high intention to donate as well as some donors reported psychological satisfaction as the most important benefit and curable mechanism of human psychological condition:

*I think, with anything good that you do, you support your psychology! Yes, you feel good, you do not feel sick, that's nonsense... ..and you do not feel anything bad!*

(NDHI, Female, 50)

*If I think I made something good, it helps me feel better.*

(FFRD, Female, 20)

Psychological benefits were multiplied by the fact of offering someone life importance aid:

*The benefit is that I give life to someone, I help him.*

(NDHI, Female, 33)

Some donor and non donor interviewees treated this benefit as the sense of pride:

*I would feel a little bit proud of myself and I would have this feeling that I do something good.*

(NDHI, female, 36)

Both amongst donors and non donors psychological benefits appeared to vary with a psychological distance to beneficiary. Some of the occasional donors mentioned that psychological benefits are stronger towards a relative or a close person:

*If I was giving for my friend, then this feeling would be stronger, because I did it directly.*

(AD, Male, 34)

*If someone close to me needs blood, then I believe that I will go.*

(NDNI, Female, 31)

Even the thought that a person in need might potentially be relative or friend stimulates donation intention:

*If people donate blood they do it to help community and other people, who are in need of blood, and they think that person who is in need of blood could easily be a relative or a close friend of theirs.*

(AD, VD, Male 27)

It is also important that some of the donors declared that psychological satisfaction was greater when they knew to whom the blood would go:

*It's a nice thing to give blood... and especially now, when I know that my blood goes to a child that needs it very much.*

(RVD, Male 27)

Some of the regular altruistic donors mentioned that they didn't not care to whom the blood would go, they consider their obligation to give blood just because they are able to do it:

*I just do it for... I mean I just give blood. I don't think who will use it or, you know... This is something that everyone has to do, I mean, you have blood – give it and maybe one day you and some other person will need and...*

(VRD, Female, 31)

Some of the donors indicated that the fact that they donated blood creates believe that in the future some other people may also provide help to them:

*If you go to the blood donation department or hospital, you will see many people waiting to give blood... and when you come out of building you think: "if I ever need blood I will get help too, like I helped other!"*

(AD, VD Male, 27)

*The only thing I consider is that if I will appear in the same condition and need the same help of blood, other will come and help me like I did before.*

(NDI, Male, 18)

#### **4.9.2. Social recognition**

The importance of social recognition was named as the second based priority by both donors and non donors. One of the occasional donors has taken the example of incentive in England that gives volunteer different donor cards according to the donation background: red card, blue card, silver card and golden card:

*...This is not incentive that is very important, but some people like to carry let's say the gold card, saying that I am a volunteer and I donate blood every year.*

(AD,VD. Male, 27)

The non donor with health problem and desire to give blood underlined the importance of respect and appreciation from society with an example of her donor husband who was given a prize and publicly thanked for volunteering. The idea of open and symbolic recognition was messaged by emphasizing the viewpoint that social recognition raises the person's self-esteem and creates sense of self-importance and self-confidence. Even without much effort the society can please and reward its compassionate members:

*Recently they gave to my husband the prize... and thanked him, it was just... we watched performance with singers and we went to somewhere where we met gathered people, who thanked him. The prize was just a paper, Ok, but he felt very, very proud, it is what you feel, I don't think it's necessary to give you gold!*

(NDHI, Female, 50)

Some other regular donors mentioned that blood donation is not a theme of everyday discussion; this is something that brings them personal satisfaction without waiting for society's approval. It appears that people with altruistic feelings may experience less desire for recognition:

*Well, I think that someone might think that he is proud of giving blood when it is something precious anyways, well... you don't go around telling something like that. This is something I keep for me. If someone asked me, or occasionally the discussion came to such a subject, I might have said something, but usually it is something personal.*

(RVD, Male, 35)

#### **4.9.3 Health benefits**

The study revealed that most of the respondents were experiencing not only psychological benefits connected to the improvement of other's health, but also benefits connected to the improvement of their own health. Many of the donors and non donors stated that they knew from doctors, general knowledge or internet that after donation body renews blood, which contributes to the improvement of donor's overall health condition. Health related benefits were named of the first base priority by some of the occasional donors:

*I think about the public good and all this stuff, but I think that it is good for your body to give blood, so... That's why I have in mind to go and donate blood... You know... you make something for you and in parallel you make something for public!*

(AD,VD, Male, 27)

Health benefit also appeared important for some of the altruistic donors but represented second priority after the help to others:

*I was very happy that I could give something that didn't cost me anything and I knew that it was good for my health because I could refresh my blood too.*

(RVD, Female, 40)

Health related benefits were second mostly addressed benefits by non donors with health problem and one of the important benefits for non donors without health problem. The most frequent benefits verified were blood recycling and high pressure treatment:

*For me the benefit is to retrain body, blood is recycling!*

(NDNI, Female, 21)

*The benefits for me are that if you have high blood pressure or something it helps you.*

(NDHI, Female, 33)

## 4. 10 Blood donation costs

### 4.10.1 Inconvenience (time and distance inconvenience)

Time and distance inconvenience presented to be the most frequently mentioned excuses for occasional donors:

*Just because... I always... not forget it... I didn't have the time to... to go for donation... I was always postponing due to my work.*

(AD, VD, Male, 27)

The majority of occasional donors claimed to have great desire to donate blood at any moment if time and distance problem is resolved:

*... if they come here right now to give blood and I have time, I will make it, but to go somewhere, wait and do all this procedure, no!.. Time is the problem and transportation too.*

(AD. Male, 34)

*I think it is a good idea, because people are really in need of blood and I may help, but I haven't really found a time to do it... and I know that's not an excuse but mainly that's the reason.*

(NDI, male, 19)

Time and distance were mentioned by the non donors without health problems. Some interviewees brought donation center's time schedule inconvenience to explain their non donor behavior:

*The hours are not so comfortable, I cannot go... I cannot leave my job and go. I think you can donate blood only in the morning and I cannot.*

(NDNI, Female, 31)

Surprisingly, only non donors with health problems have not mentioned time as a resistant factor. Moreover, they declined time to be an obstacle for blood donation:

*When they call people to donate blood, they do it on Sundays. On Sunday nobody works, so you can easily go and give blood, one hour is nothing.*

(NDHI, female, 37)

The same attitude was observed amongst some non donors without health problem:

*If someone wants to do something good, time shouldn't be an issue...*

(NDNI, Female, 21)

Regular blood donors, on the other hand, described blood donation as very fast and convenient and stated that those who have time problem may not be familiar with the procedure of blood donation, which requires very little time:

*... I never waited for long time, but most of people think it's a waste of time like: "I have other things to do; I will go there and wait for one or two hours to get my turn to give blood"*

(RVD, Female, 31)

*It's very easy, you can go and give, and it's very fast and safe!*

(RVD, Male, 33)

Some regular donors also mentioned that psychological satisfaction experienced by the fact of doing something good, makes the cost negligible:

*You can give something to someone who needs it very much without costing anything, it cost you nothing!*

(AD, Male, 33)

When compared to other volunteering activities some of the regular and occasional donors perceive blood donation as a non-time consuming in contrast to other voluntary behavior:

*...It doesn't really involve you. There is volunteering activity that really involves your time and your spirit. Blood donation doesn't really involve you. You just go once every three four moth or twice a year to give blood. I perceive it as a simplest thing someone can do!*

(RVD, Male, 35)



*In blood donation you don't need much time. Any other volunteering activity, like voluntary work and things like that absolutely distracts you from the job you are doing right now. Time is precious for the person being in work. Blood donation needs 10 minutes, it's nothing, you can do it!*

(FFRD, AD, Male, 31)

#### **4.10.2 Psychological cost**

Fear of needle, blood and injection process tended to be the most frequently expressed psychological cost. It was identified as the second biggest barrier for non donors after the time cost:

*Yes, I have some fears, for example, because I am doing athletics, every six months I have to examine blood and... ..I don't have problem with blood, but needles... I can't stand them... .. I have a fear if the needle is too big, and when you see so much blood it's disgusting!*

(NDNI, female, 21)

Some interviewees appeared to have problem of identifying the true reason for not giving blood and they attributed this to fear:

*May be it's a fear, I don't know.*

(NDI, male, 28)

It is remarkable how feelings and relative fears among non donors are transformed during, before and after imagined donation procedure. The imaginative fears and connected to it nervousness in most cases last until the end of the process. Then relaxation replaces anxiety:

*Before, I would be afraid and feel fear, during the donation, and after donation – relief.*

(NDHI, Female, 27)

Some donors also disclosed minor anxiety and fear connected to the donation process at the beginning, but when describing the feelings after donation they mainly mentioned happiness coming from helping other. Only very few non donors reported psychological satisfaction so strongly. It is proposed that they cannot perceive the importance of psychological satisfaction as strong as donors because of the lack of donation experience.

All of the regular donors were completely free of any fears connected to blood donation. Only some of the occasional donors showed fear of injection and emotional anxiety as blood donation barrier. One of the solutions mentioned to overcome the fear was moral support during the donation process:

*I didn't have anybody to calm me down so I could give blood.*

(FFRD, Male, 35)

It is also noticeable that some regular donors encountered unpleasant experiences connected to the donation process, like problems with the injection or fainting, but this didn't disrupt them from blood donation. They considered these cases as occasional:

*Maybe you will pass out when you give blood, I mean fell out. It happened to me once but it was Ok... I stayed there for 20 minutes, it was Ok, and then I left.*

(RVD, Female, 31)

It is proposed that altruistic donors generally are less vulnerable to barriers; some of the donors continue giving blood while having health problems:

*I have anemia so and so, so I give blood after I finish my treatment.*

(RVD, Female, 31)

*My blood pressure is sometimes very low, but I still give blood, I am used to it.*

(VD, Male 37)

#### **4.10.3 Health risk**

The number of donors and non donors stated little fear of being infected with transmittable diseases; still it is set as mentionable barrier:

*I have fear of diseases so, so... in old time there was different... because there was no AIDS that appeared today.*

(VD, Male, 60)

*I think one unpleasant factor is the feeling that you have a fear of something, because there are many diseases that come from blood and you may take them.*

(NDNI, Male, 22)

Some of the donors and non donors highlighted the risk of taking diseases from improper hygiene conditions in hospitals and commented on the necessity of hygiene level improvement:

*It's a little dangerous especially in Greek hospitals, not so clean and may take aids or something like this.*

(NDHI, Female, 37)

*If you go to the hospital you will see that hygiene in the rooms and corridors need to be improved.*

(AD,VD, Male, 27)

It is also worth mentioning that many of donors and non donors remembered some cases of transferring diseases by blood transfusion, but they assume it to be threat more for a patient then for a donor as they are observing new instruments opened in front of their eyes at the moment of donation:

*For me it's not a problem, as every time I go to give blood I see that instruments are new. They take new bag in front of me.*

(AD, VD, Male, 27)

Non donors with health problems, also some of the donors expressed high trust towards medical system:

*Yes, you think about it, it's dangerous, but you trust... you trust the government, you trust the hospital, all these people who work there, so you go... what happens, happens not frequently. It happens sometimes... so you have hope that it will not happen to you...*

(NDHI, Female, 50)

#### **4.10.4 Organizational cost**

##### *4.10.4.1 Worry that blood will be wasted*

Some of the donors and non donors showed worry that their donated blood would be wasted. For this reason, and also for the inattentiveness of the doctors, one of the regular blood donors stopped volunteering. He has not been warn that his blood group because of being very rare was not often is used. Therefore doctors had been taking only the plasma out of it:

*They hadn't told me that they were not on need of this kind of blood group. They told me that very often this kind of blood group goes wasted, thrown away. So, I remember I got a little angry, not angry, but I thought like, you know...They should have told me that... and I decided to stop giving blood just for plasma.*

(RVD, Male, 35)

Some of the donors suggested that non donors could be motivated by knowing the exact name of their blood recipient. This would assure them that the blood is used and does not get wasted.

*If they tell the name of the person that needs blood, this can motivate people to give. I mean: "Please give blood for this person", I mean many people would do that, because*

*they know that this is for one specific person. Otherwise they say: “Ok, I will give blood, but eh, never mind, it’s not so important! Maybe they use it, maybe not, and if it’s not so important, leave it!”*

(RVD, Female 31)

One of the occasional donors also indicated doubt that blood always goes to the person it is taken for:

*They send you an e mail that “This person in that hospital needs blood! Let’s go all together to give some blood!” I very often see this. No I never got motivated about it, I don’t know why, I just wanted to go to give for general public, but.. But maybe I don’t know, they don’t inform you well, I don’t know where to go to give blood. Where to go? Go to which hospital? I don’t know where. I think that maybe this blood will not reach this person!*

(AD, VD Male, 27)

#### *4.10.4.2 Inattentiveness of personnel*

It has been also found out that when people were refused the possibility to give blood because of the health problems, they wanted these problems to be sufficiently clarified by examination. Some donors and non donors attributed the dilemma of inattentiveness and unprofessionalism of the personnel that could have an inferior affect on attitude towards the blood donation:

*Last time when I tried, Doctors asked me if I had any problems with stomach and I had some problems and I told them. They told me I couldn’t, I don’t know why...They didn’t examine me, I don’t know why...*

(VD, Male, 60)

*...at the army I said that I had had some disease and asked if this cold have any involvement with blood donation... but it wasn’t explained to me, I do not think It had to do anything with that, but the nurse had perceived it batter not to give blood. But I do*

*not think she wanted to go through the process and check it... anyway... I am still thinking to do but I have not done it.*

(RVD, Male, 35)

Some of the donors and non donors showed complain about egoistic rather than philanthropic behavior of the personnel and blood collecting organizations. One of the donors has told the story of her friend who has donated blood for one center and wanted it to be transferred to another, which never happened:

*This is something that we didn't like; I mean it's not the point... "I want my organization to give the best, more blood"- they think this way. At least that organization was thinking that way: "I want all the blood for me". Ok... I mean... it was like competition: who will have more blood!*

(RVD, Female, 31)

*They don't think that they are doing something important for the community; they just work, so if they leave early, there is less time for civilians to donate blood. If I am thinking of donating blood and I am not sure, and employees are considering it something boring, then yes, this won't give me any incentive to go and give blood again.*

(AD,VD, Male, 27)

Problem of not sufficiently polite nurses is reported by several non donor interviewees and aligns with the need of encouragement by medical personnel. The implicit outlook was discovered among few non donors, regarding sensitivity of blood donation process such as direct procedural connection to the blood through skin:

*I mean it shouldn't be a person who scares you a little bit, who is sharp and rude with you, somebody who talks nice to you and he makes you feel nice, because it's a procedure that has to do with something that gets into your skin, so you have to prepare yourself.*

(NDHI, Female, 36)

*If I need, I will give blood, but nurses are not encouraging.*

(NDHI, Female, 27)

One non donor without health problem and without intention to donate highlighted relative past experience with nurses and consequently based her fears on this unpleasant experience:

*I have some fears, for example, because I am doing athletics, every 6 months I have to examine blood and sometimes I have had bad experiences with nurses.*

(NDNI, Female, 21)

#### **4. 11 Subjective and descriptive norms**

Subjective norm as an Imaginary social support and descriptive norm as other people's similar behavior seemed to influence some of the regular and occasional volunteer donors mainly from a part of family members:

*My father told me that if someone has a problem in the family, he is the only one who gives blood and he would find blood for us, that if you don't donate blood, you will find nothing.*

(AD, VD, Male, 27)

*...my father was always a volunteer, but never told me something about it... may be in the back of my mind it had some impact.*

(RVD, Male, 33)

The importance of the friends' similar behavior and support was also mentioned by some of the occasional donors:

*That's the reason I give blood: we are friends from the same village and most of them give every year.*

(FFRD, VD, Male 49)

*I believe that not only because of my background as a person, the knowing of the people who provide assistance to other people... ..Maybe it's a little bit religion; maybe it's a story of my parents from the hospital; maybe it's my sensitivity to human pain that are positive factors that influenced me as a donor.*

(VD, Male 37)

Subjective norm was also presented from the part of regular blood donors. Some of them declared that they try to influence their friends and other people to donate blood:

*I advised friends and they went and gave plasma, and I will continue to advice if the conversation goes to this subject!*

(RVD, Male, 33)

The relatively correlated disclosure to the above stated case was found amongst non donors without health problems and with intention once to start giving blood. One of the donors monitored the close person's behavioral attitude and still remained unmoved blaming lack of time and other inconveniences:

*I was interested in it before, no I actually... my friend, he is a donor. And I think it is a good idea, because people are really in need of blood and I may help, but I never found time to go.*

(NDI, Male, 19)

#### **4.12 Perceived behavioral control and self efficacy**

Perceived behavioral control, which refers to person's perception of his ability to successfully perform target behavior, and self efficacy, as person's imaginary control over the action, appeared to have influence on blood donation.



The study revealed that almost all of the regular donors were characterized by high perceived behavioral control and self efficacy as they were taking decisions and acting intentionally:

*I went to the hospital, so I registered there. They told me that I can give twice a year; I gave for about three years.*

(RVD, Female 31)

They viewed to have no negative influencers of their decisions:

*I had no negative influences, all that factors that you mentioned took part in my decision, I had time, I had will, and I had emotional factors.*

(RVD, Female, 40)

Non donors, on the other hand, appeared to be unorganized in identification of their true attitude towards blood donation because of lack of donation experience and knowledge, thus they might feel themselves less in control of the situation:

*No, there is no other reason... Sometimes I think to go, but I do not know why I can not do that.*

(NDNI, female, 31)

*I have not looked into the matter of blood donation so much, to tell you truth, don't know why, maybe I will some time.*

(NDHI, Female, 36)

Non donors without health problems and intention to give blood seemed to wait to some occasional circumstances to take an action:

*I considered many times, if I appear in the situation, that someone needs blood, I believe I will give but this never happened so...*

(NDI, Male, 28)

The same trend was revealed between occasional donors who appeared to postpone donation decision and wait to some occasional or simulative factors, like an encounter with blood donation van; some of them were waiting for the support of the family member during the donation process.

Some other interviewees noted that past unsuccessful experiences to donate blood made them reluctant to donate again:

*Actually, I tried to donate blood once, but when the doctor told me that if there are any heard conditions or other medical problems, I told him that once they have found, I don't know how to say... a blowing sound, when you lace the oscilloscope in the heart you can hear the heart beating, but you also hear the blowing sound. So, the doctor didn't want to take the responsibility for the donation and said that I have to do some extra tests, and it was a big chore, mean I have to do five tests, so I never deed it. It was too much!*

(NDI, Male, 28)

## **Chapter 5 – Discussion of the findings**

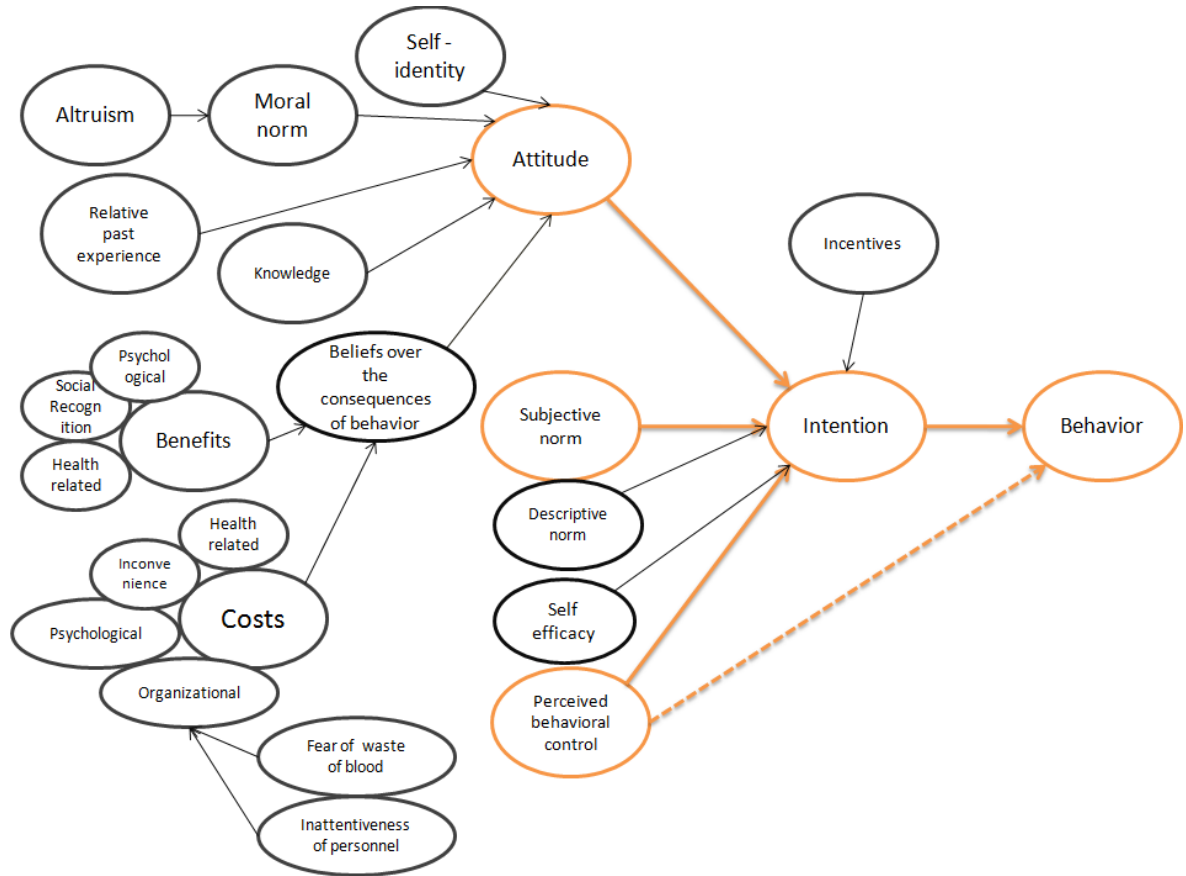
### **5.1 Introduction**

In this chapter the results of the analysis are summarized and presented by the suggested model of the extended Theory of Planned Behavior in the form of the following important factors: altruism, knowledge, self identity, moral norm, relative past experience, incentives, benefits and costs, subjective and descriptive norms, perceived behavioral control and self efficacy. Each factor and their interaction patterns have been discussed in accordance to the previous studies.

### **5. 2 The proposed model of Theory of Planned Behavior**

The findings of the study propose the model represented in figure 2 that stands for the extension of the Theory of Planned Behavior. The model suggests that altruism, relative past experience, moral norm, self identity and knowledge could play an important role in the formulation of attitude towards blood donation, as well as anticipated benefits and costs. The benefits for blood donation have been classified as follows: 1) psychological benefits 2) social recognition 3) health related benefits. The costs have been identified as follows: 1) health related costs 2) inconvenience costs 3) psychological costs 4) organizational costs. Incentives are suggested to support intention. Descriptive norm and self efficacy are found to influence intention together with subjective norm and perceived behavioral control. The detailed discussion of each of the factor and the trends of relationship between them are represented below:

Figure 2. The proposed extension of the Theory of Planned Behavior:



### 5.3 Altruism

The results of the study have found direct link between altruism and blood donation intention both amongst donors and non donors in compliance to the study of Reid and Wood (2008). Non altruistic people were characterized by low intention to donate blood. The intention to donate in most cases was found to lead to the donation behavior (Masser, et. al., 2009). Altruists also demonstrated high level of control over the action, thus possessed high self efficacy and perceived behavioral control as suggested by Reid and Wood (2008). Non donors with altruistic root in most cases didn't have other reason for not donating than health problem.

The source of altruism was uncovered to come from the personality and the family roots (Penner et. al., 1995) and was mainly presented in the form of desire of the improvement of

welfare of others not requiring any personal benefits in return as described by Lyle, et. al., (2009). Some altruist presented positive feelings coming from helping behavior (Lemmens, et. al., 2009). The study revealed that these feelings where multiplied by the perception of the importance of blood donation that is directly connected to people's life.

Altruism appeared to lead to the concern of social issue that would lead to the intention to donate blood (Griffin and O'Cass, 2007). The study also revealed that some altruists are characterized by high moral norm. This comes in compliance with the study of Lemmens, et. al., (2009) according to which altruism influences donation intention through moral norm, as embodied by the figure 2.

#### **5.4 Relative past experience**

Relative past experience of the need of blood appeared to be one of the most prominent influencers on blood donation attitude both for donors and non donors as proposed by Chliaoutakis, et. al., (1994) and represented in the figure 2. The respondents declared that the relative past experience influenced their attitude and consequently the intention to donate blood through raising vulnerability towards human pain and also increasing knowledge about general need of blood.

#### **5.5 Knowledge**

General knowledge about blood donation to be important in cognitive attitude formulation (Adam & Soutar, 1999) has been verified by the results of the research and presented in the diagram 2. The study prove the influence of knowledge on blood donation attitude in many cases leading to the intention to donate both from the part of donors and non donors. The Knowledge is also proved to be negatively correlated with the barriers of blood donation, like time cost and donation anxiety, revealing that regular donors possessed fewer barriers because of the familiarity with the process. Non donors, on the contrary could only anticipate potential negative implications of donation.

## **5.6 Self identity**

Self identity showed to play role in formulation of the intention to donate blood through attitude as proposed by Masser, et. al., (2009) and projected in diagram 2. Self identity was exposed only amongst donors with regular donation experience (Piliavin & Callero, 1991) in the form of involvement and self description as donor. According to the findings blood donors reported self identity by three main forms 1) They presented themselves with the status of the registered blood donors, showing the sense of duty to donate blood at the regular bases 2) They verified emotional attachment to the donation centers they were registered in trying to donate at one place mainly 3) They demonstrated collaborative relationship with the hospital that seemed to create the involvement and assurance.

## **5.7 Moral norm**

Moral norm was opened to have an influence on blood donation though formulating positive attitude as suggested by Masser et. al., (2009). The relationship between moral norm and attitude is proposed in figure 2. Blood donation has been observed as philanthropic and moral act both by donors and non donors. The study suggests that blood donation can be driven by different types of moral obligations: 1) Moral obligation to help the people in need represented by the altruist donors leading to the volunteering behavior towards unknown person. 2) Moral norm as an obligation towards relatives, represented by family/friend replenishment donors; people, possessing this type of moral obligation, do not seem to show vulnerability towards unknown people. 3) Social responsibility towards the country in attendance to army donation, which is less likely to be directed to regular donation behavior. 4) Social responsibility towards civilization – this type of moral obligation was mainly named by non donors having small intention to donate and is more viewed in the form of general notes than the actual behavior.

## **5.8 Incentives**

The General attitude towards incentives appeared to be positive, but of different priorities for people with high and low intention to donate. For regular, altruistic donors incentives seemed to be of minor priority in comparison to the psychological benefits they were getting from the helping behavior. Occasional donors, also non donors without health problems, were more prone to give blood under the motivation of incentives than regular donors, but they have been also stating the importance of potential psychological benefits. This comes in compliance with the theory that incentives discharge people from the possibility to feel that they are doing something good for the society as proposed by Abolghasemi, et. al., (2010). Incentives showed up to be the only reason for blood donation for only exceptional non altruistic people. The study showed that incentives acted as stimulator only if attitude about blood donation was positive, thus we propose that incentives affect intention only, not attitude. That comes in compliance to Ajzen, (1991) stating that motivational factors have influence on intention. The linkage of incentives to intention is shown on the figure 2.

“Active decision” as an intention enhancing factor suggested by Stutzer, et. al., (2006) has been also presented by the empirical study. Some of the people stated to be influenced by the spontaneous blood donation possibility created at special blood donation days and by vans at public places. In some cases this kind of decision raised knowledge about blood donation through experience and stimulated further donation.

## **5.9 Blood donation benefits**

The most prevailed benefits of blood donation both for donors and non donors were psychological benefits from helping others. Interviewees expressed feelings of emotional calmness and happiness. These findings are in accordance with Andreoni’s (1990) “joy of giving” element. According to the last, charitable contribution is done only for increasing happiness of other people along with the associated feelings of pride, satisfaction, feeling better about himself/herself presented by “warm glow” model (Andreoni, 1990). This

model reports that a philanthropic act is done for the support of personal psychology. The important point is that both for donors and non donors psychological benefits varied in compliance to how close they were to the person they were to help. According to Gispén (2004) the psychological benefits usually vary with the psychological distance to beneficiary: the closer the distance, the most likely help will be provided and the larger psychological benefits got. Some interviewees stated that knowing to whom the blood goes also enlarges their psychological satisfaction. Altruistic donors cared less to whom the blood would go. It was also found out that the act of giving made some donors believe that someday they would also get some help when needed, which represents the model of “Replacement and assurance” attitude by Adam and Soutar (1999).

Social recognition as benefit of blood donation proposed by Chliaoutakis, et. al., (1994) appeared to be of minor importance for some of the donors and non donors, but almost not important for altruistic donors.

The study revealed that both regular and occasional donors as well as non donors were expecting blood donation to improve their health. That was mainly due to the fact that after regular donation new blood is being generated having positive effects on overall health of the donor. Most of the interviewees named health benefits as second based priority, for some of the non altruistic donors it appeared to be more significant than a help provided to other.

The benefits are connected to blood donation attitude together with costs through believes over the consequences of behavior as proposed by Ajzen (1991), exposed in figure 2.

### **5.10 Blood donation costs**

Blood donation costs have been found out in the four main dimensions: 1) inconvenience 2) psychological cost; 3) health risk and 4) organizational cost.

Time and distance inconvenience, suggested by Adam and Soutar (1999) was one of the most frequently mentioned barriers for occasional donors as well as non donors without



health problems. The study has also revealed that Altruistic donors experienced less time and distance problems than occasional donors and non donors; these findings are in compliance with Reid and Wood (2008), suggesting that time and distance inconvenience varies with donation intention. Study proposes that regular donors' attitude on time and distance inconvenience is formulated by the knowledge they possess about donation process. It has also been found that some donors and non donors perceive blood donation as less time consuming voluntary activity than any other as suggested by Gispén (2004).

Psychological costs as donation anxiety, fear of needles and blood was identified as the second biggest barrier for non donors and some of the occasional donors. These fears were not presented amongst regular donors. This can be explained by the study of Reid and Wood (2008) proposing that higher intenders experience less fears than lower intenders. Besides, regular donors already possess experience of donation activity, (Griffin & O'Cass, 2007; Lyle, et. al., 2009) and hence, relevant knowledge on blood donation procedure reduces possible fears (Adam & Soutar, 1999). The following tendency has been also revealed: psychological satisfaction by donating blood exceeded any unpleasantness connected to fear before giving blood. This tendency was lower among non donors than donors. The implications are that this is mainly driven from the fact that non donors possess no experience of blood donation and can only imagine the benefits it can bring.

Health risk, associated to the fear of transmittable diseases, was also presented by small number of occasional donors and non donors; this risk was directly related to the inappropriate hygiene conditions in the hospitals. The risk was partially overcome by the fact that donors observed the use of new instruments assuring themselves about safety of blood donation procedure.

Organizational cost was reflected in the literature review referred only to the blood donation facility management (Chliaoutakis, et. al., 1994). The outstanding disclosure of this study lies in the point that the reported organizational risks were grouped in two key categories: 1) worry that blood would be wasted; this also includes the doubt that the donated blood would go to the person it has been taken for. This worry comes from general no trust of the medical personnel and system because of the past experience. 2) Inattentiveness of the personnel, drawn from the past practice of insufficient medical

examination, non philanthropic behavior of the personnel and not satisfactorily polite nurses.

### **5.11 Subjective and descriptive norms**

Subjective norm was found out to play role of support and encouragement in donation intention mainly from family and friends. This support appeared to be positive for some of the regular and occasional donors. Descriptive norm, as the similar behavior of family members and friends also appeared to have impact on regular and occasional donor's behavior, but it was less revealed amongst non donors. Both subjective and descriptive norms directly influence intention (Ajzen, 1991) as presented in figure 2.

### **5.12 Perceive behavioral control and self efficacy**

High perceived behavioral control and self efficacy were presented among altruistic donors, non donors and occasional donors showing dependence on sporadic circumstances, the need of blood for a family member or some other motivational factors. This comes in compliance with Reid & Wood (2008) suggesting that perceived behavior control and self efficacy vary according to the donation intention. On the other hand, altruistic donors often cited self efficacy and perceived behavioral control as the influential factor on the intention (Ajzen, 1991; Lemmens, et. al., 2009) and hence, they are components of the figure 2.

## **Chapter 6 - Conclusions and recommendations**

The aim of the study was to investigate the factors influencing blood donation behavior and their main patterns and variations in order to better manage blood donation activity.

The study has revealed altruism to be one of the important influential factors for blood donation. The theme indentified two categories of individuals: altruists and non altruists. The Altruists appeared to be characterized by the excessive vulnerability and care towards humans and greater concern towards social issue. Altruists in most cases possess strong intention towards blood donation activity, moral norm, high perceived benefits and low psychological costs. Altruists are further characterized by self identity that is psychological attachment to the hospital and involvement in blood donation activity. They are less vulnerable towards incentives and are characterized by the deliberate decisions and elevated perceived behavioral control.

Non altruists, on the other hand, represent low intenders with moral norm directed towards relatives or army obligation. They represent high vulnerability towards time and psychological costs and low self efficacy and perceived behavioral control. They are more vulnerable towards incentives and are waiting for the contributive circumstances to overcome fear.

Both altruists and non altruists seemed to experience high psychological benefits from giving blood. Incentives seem to influence only blood donation intention, not attitude, but may appear to play an important role through stimulating first blood donation experience, thus raising knowledge about the procedure and motivating further donation behavior. Health related benefits also seem to pay role in donation intention both for altruists and non altruists. Thus, literacy on the benefits resulting from blood donation could positively affect donation behavior. The study has also revealed organizational cost to play role in blood donation decision that has two main directions: 1) Worry that blood would be wasted; 2) Inattentiveness of the personnel.

As regards to the managerial implications, the study revealed that the overall knowledge on the need of blood donation reduces fears associated to the donation and positively

contributes the donation behavior. Integrated approach is proposed as supportive for the general improvement of attitude towards blood donation. It might be reasonable to deliver information on the need of blood and the importance of blood donation, as well as the procedural simplicity to the individuals more actively and improve knowledge level from the early ages of person's development. This may encounter special programs for schools and universities. The segment of regular donors could be directed through the tools enhancing self identity with some forms of appreciation and cooperation between regular donors and hospitals like keeping personal blood banks of donors and etc. The study showed that the promotional actions might directly stimulate the responsiveness among non donors or occasional donors. Besides, the organizational cost was identified as outstanding finding of the study. It is suggested that hospitals and blood donation centers progress the service level and eliminate complications connecting to blood donation. This would raise the trust and transparency and avoid fear and doubt towards the medical institutions as well as medical representatives. The study reflected the notable role of the mobile blood banks, hence the suggested steps are towards enhancement of these banks' operative effectiveness and increased coverage throughout the country. Finally, overall efforts are suggested to be made by government side to promote well-organized, transparent and supported- from – state donation system in Greece.

## **Chapter 7 - Limitations and directions for further research**

Some research limitations can be identified in this study as follows: 1. The language barrier based on the justification that the research authors are non native English speakers and there was limited opportunity for simultaneous translation during interview; 2. Non - response bias - the persons that have refused to give an interview due to the language barrier, lack of time or/and wish to participate; 3. Limitations in analytical process connected to the adjustment of the emerged theory to the grounded one; 4. The limitation adhered to the chosen, qualitative, in-depth face to face interviewing method; there is not possibility to generalize the findings on population as the sample size is relatively small. Thus, these findings and the proposed model are indicative.

Further test of the model is recommended. The major direction of further research is each basic factor of the model with its sub-factors, influencing the blood donation behavior. Particularly the organizational cost needs further investigation to be determined as one of the key influencers on the attitude and incentives, which directly weight attitude and intention to donate blood.

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## Appendixes:

Appendix #1

### Research on: Blood Donor Behavior in Greece

#### Questionnaire for donors

Please, present yourself

1. Gender
2. Age
3. Marital status
4. Number of children
5. Education
6. Social status
  
7. Have you ever given blood? (yes/no/)
  
8. If yes, Please describe your donation background:
  - registered/non registered
  - Systematic blood donor/occasional/ first time (once)
  - altruistic, family/friend replacement, military
  - Duration /years/
  - Donation frequency /# a year/
  
9. Initially, why did you decide to become a blood donor? What influenced you in the decision? (Altruistic, Attitudinal (affective, cognitive) moral obligation, other people's similar behavior, other peoples support and approval, control over the action, self identity).
  
10. What are the reasons that influence you to remain as a blood donor?
  
11. Why did you choose the blood donation and not other type of volunteer activity?
  
12. What factors (like: time, money, advertisement, technical, social, health-related, emotional, cultural and religious, sex-related, knowledge, peers, society and etc.) influence you as blood donor, both, positively and negatively?

13. Please, describe your feelings/senses/thoughts, before/during /after donating the blood?
14. Can you name types of incentive that contributed your decision to become a blood donor and to remain as a blood donor?
15. How do you perceive benefits from/for you, from doing the blood donation?
16. What are the unpleasant factors connected to being blood donor?
17. What do you know about blood donation in Greece?
18. What do you like in the blood donation activity/system?
19. What do you dislike in the blood donation activity/system?
20. What would you change in the blood donation activity/system?

### **Research on: Blood Donor Behavior in Greece**

#### **Questionnaire for non donors**

Please, present yourself

1. Gender
2. Age
3. Marital status
4. Number of children
5. Education
6. Social status
  
7. Have you ever given blood? (yes/no/)
  
8. What is your attitude towards the blood donation activity?
  
9. What are the main reasons for not being a blood donor (fear of blood/needle/faint/transmittable diseases and other)?

10. Have you ever thought of being blood donor, why?
11. What would make, encourage, stimulate you to become a blood donor (Incentives, which? Solving of transportation and time problems, other)?
12. What do you like in the blood donation activity/system?
13. What do you dislike in the blood donation activity/system?
14. What would you change in the blood donation activity/system?
15. Have you ever been a volunteer in other volunteer activity than blood donation? If yes, why did you choose this activity to blood donation? If not, would you like to pursue other type of volunteering activity, why?
16. Please describe your feelings/senses/thoughts when you think of being donor, becoming donor, being blood donor?
17. How can you perceive benefits from/for you, if you were blood donor?
18. What would be the unpleasant factors if you where blood donor?
19. What do you know about blood donation in Greece?

## The socio demographic characteristics of the sample of interviewees

SOCIO-DEMOGRAPHIC AND EDUCATIONAL VARIABLES		NO. OF INTERVIEWEE DONORS	NO. OF INTERVIEWEE NON DONORS
<b>Gender:</b>	Male	12	5
	Female	4	10
<b>Age:</b>	18 – 30	3	7
	31 – 40	8	6
	41 – 50	2	1
	51 – 60	2	1
<b>Education:</b>	High school	3	2
	University	13	13
<b>Social Status:</b>	Employed	9	7
	Student	3	4
	Working student	2	0
	Self-employed	1	4
	Unemployed	1	0