

**DONOR ORIENTATION AND EMPLOYEE ATTITUDES AND BEHAVIOR IN SPANISH BLOOD  
TRANSFUSION CENTERS AND SERVICES**

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**Abstract**

This study seeks to contribute to the challenge faced by public managers in terms of knowing how to generate employees' positive attitudes, such as satisfaction and commitment towards the organization, that would likely lead to an extra-role behavior. The results of a study carried out with 147 staff members from Spanish blood transfusion centers and services (BTCS) show that, if these public organizations develop a market orientation (MO) focused on the donor, they will enhance both directly and indirectly (through job satisfaction –JS–) the organizational commitment (OC) and ultimately the organizational citizen behavior (OCB) of their employees. The results obtained contribute to the new public management literature by clarifying whether MO is good or bad for organizational performance. Implications for public organizations in the particular context of health care services, and specifically for blood donation services, derive from these results, and future lines of research are outlined for going in depth into determinants of public sector employees' attitudes and behavior.

**Keywords:** market orientation; satisfaction; commitment; OCB; blood transfusion centers and services

## **Introduction**

The present context of public management across nations is one that emphasizes the goals of efficiency, which often implies budgetary cuts for organizations. In this context, public managers are faced with important challenges to enhance and sustain employee morale and motivation, promote innovation and performance, as well as attracting and retaining high-quality employees (Chordiya et al. 2017). Thus, promoting certain attitudes and behaviors such as employees' job satisfaction (JS), organizational commitment (OC), and organizational citizenship behavior (OCB) becomes of paramount importance (Boselie 2010; Boyd et al. 2018; Chordiya et al. 2017; Sobral et al. 2017; Stazyk et al. 2011).

Organizational systems might help employees to obtain a sense of identity and pride that make them more committed to the organization. So, employees' commitment might have less to do with their own personal characteristics and more with the organization culture, systems and practices that create a connection between individual and organizational goals and values (Austen and Zacny 2015; Farzaneh et al. 2014). Internal processes and structures of the organization will define the work environment that will enhance JS (Cantarelli et al. 2016) and OC (Meyer et al. 2002) mainly when this environment allows a congruence between employees' values and those that underlie the organizational processes (Cantarelli et al. 2016; Jin et al. 2018; Langer et al. 2019; Vigoda and Cohen 2003).

In this work our basic tenet is that the adoption of a market orientation (MO) on the part of public organizations is a key driver to create a work climate where employees are satisfied and committed to their organizations, which ultimately leads them to behave as good organizational citizens. A behavioral approach to MO includes "the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence" (Kohli et al. 1993, p. 467). In the public non-profit context, the customer has been renamed as "stakeholder" (Liao et al. 2001; Macedo and Pinho 2006) to reflect a broader definition of MO that leads to non-profit effectiveness (Hsieh 2010; Padanyi and Gainer 2004; Rey García et al. 2013; Valero-Amaro et al. 2019; Wymer et al. 2015). This definition implies that the customer is split into various subsets: beneficiary, donor, employee, volunteer, etc. (Duque-Zuluaga and Schneider 2008; Mitchell et al. 2015; Modi 2012) or even the society at large (Valero-Amaro et al. 2019; Wymer et al. 2015). In the case of blood

transfusion centers and services (BTCS), two of the most critical stakeholders are beneficiaries receiving the organization's services (i.e. health facilities which receive the blood), and blood donors. The former is arguably the reason why the organization exists, while the latter enables its existence because BTCS have a high dependence on the key resource (blood) it provides (Macedo and Pinho 2006). To the extent that serving the needs and interests of donors is viewed as a mean to better serve beneficiaries (Morris et al. 2007), in this study a broadened marketing concept is adopted by focusing on the attention to blood donors. Therefore, in this work the concept of MO is considered to be coincident with that of donor orientation (DO). BTCS need to retain current donors and search for new donors, so they have to take care of donors' desires and satisfaction (Duque-Zuluaga and Schneider 2008; Leipnitz 2014) in order to maintain their loyalty, and therefore to guarantee the sustainability of the national blood supply (Alfonso et al. 2012; Boenigk et al. 2011). This orientation could be a driver to promote employees' JS, OC, and ultimately OCB.

JS is an evaluative state that expresses contentment with, and positive feelings about, one's job (Judge and Kammeyer-Mueller 2012). JS has two dimensions, namely extrinsic satisfaction (e.g. satisfaction with pay, physical conditions, policies, and procedures) and intrinsic satisfaction (e.g. satisfaction with creativity, achievement and accomplishment) (Cooper-Hakim and Viswesvaran 2005). Our focus in this work is on intrinsic JS, since it has been suggested that, while private sector workers place more value on extrinsic aspects of a job such as high wages, public sector workers give more importance to aspects such as the interest of the work which is included in the notion of intrinsic satisfaction (Ashill et al. 2006; Markovits et al. 2010; Perry et al. 2010). Particularly, intrinsic social rewards have been shown to be more important to workers in mission-driven organizations in the public and nonprofit sector with organizational goals that focus on a collective good (Borzaga and Tortia 2006), and to get an increase on both the employees' satisfaction (Perry et al. 2010) and OC (Markovits et al. 2010).

OC is defined as an individual's psychological bond with the organization (Judge and Kammeyer-Mueller 2012; Klein et al. 2014). It is considered as a key driver of public sector outcomes (Sobral et al. 2017) that leads to a "cycle of success" with increased awareness of employees' role in customer satisfaction and a concentration on quality at the service core (Schlesinger and Heskett 1991). Of the three dimensions of OC (i.e. affective, normative and continuance) identified by Meyer and Allen (1991), we focus on the affective one, which reflects the emotional attachment, identification, involvement and pride that an individual feels toward an organization

(Morrow 2011). Research has shown that affective commitment is most strongly related to job performance, employee well-being and discretionary performance (Meyer et al. 2002, 2012; Stazyk et al. 2011). Thus, the analysis of the antecedents of affective OC becomes of great relevance to the public sector management field, given that it will have a significant influence on key aspects for organizational life such as OCB.

OCB is a particularly relevant outcome of OC which refers to extra-role, discretionary behaviors of individuals who are not explicitly recognized by a formal reward system and that are beneficial to the organization and to others in it, like showing enthusiasm and extra effort on the job, helping and cooperating with others, and supporting and defending organizational objectives (Jin et al. 2018; LePine et al. 2002; Ng and Feldman 2011; Podsakoff et al. 2009; Yang 2012). Particularly in the context of public organizations under financial stress, it has been argued that public-service motivated employees showing higher levels of extra-role behaviors may play an essential role for these organizations in maintaining the quality of their services (van Loon et al. 2017).

This research makes an important contribution to the field of public management. Previous research in this area seems to support the idea that public sector employees have lower levels of satisfaction (Wright and Davis 2003) and OC (Markovits et al. 2010; Sobral et al. 2017) than their private sector counterparts. The suggested reasons are related to certain structural features of the public work environment, such as the existence of multiple, ambiguous and often conflicting goals, and more red tape and procedural constraints (Stazyk et al. 2011). Thus, previous research in public administration has focused on variables such as the individual characteristics of public servants (e.g. public service motivation), work experiences (e.g. leadership style and behaviors) or other organizational factors (e.g. the psychological climate) with the aim of identifying factors that could offset the negative effects of these institutional characteristics on the psychological well-being of public sector employees (Sobral et al. 2017). Here, a new perspective is proposed suggesting that public managers could compensate these negative influences on employees' attitudes and behavior by enhancing MO in public non-profit organizations, which will enhance both directly and indirectly (through JS) the level of OC and ultimately OCB.

JS (and, in turn, OC) of employees is crucial when they deal with health and social services. The effectiveness of these services depends critically on the interaction between service professionals and the client (Duque-Zuluaga and Schneider 2008). With JS being viewed by different stakeholders as a core indicator of overall organizational functioning and performance, a better conceptual understanding of how an employee's bond with

his or her broader organization is linked to JS, and a more comprehensive view of the determinants of job attitudes and behaviors is called for (Karanika-Murray et al. 2015).

This paper is organized as follows. First, the theoretical framework supporting the hypotheses is presented followed by the description of the methodology chosen for this research. After presenting the results, its findings, contributions and limitations are discussed and several implications for public non-profit management are provided.

## **Theoretical Framework**

### ***Market Orientation and Job Satisfaction***

JS supposes an accumulation of sentiments related to the job being performed that contributes to the employee well-being (Kianto et al. 2016). Employees' satisfaction has been confirmed to be linked to the meaningfulness of their work in mission-driven organizations. In the context of public organizations, JS has shown a positive relationship with mission valence, person-job fit, flexible work, innovation, and a variety of other individual and organizational factors (Cantarelli et al. 2016). Thus, public management research has highlighted the importance of work environments and person-organization fit for improving JS (Cantarelli et al. 2016; Kim 2012; Langer et al. 2019). On this basis, these two dimensions will be considered in this research to explain employees' satisfaction in public non-profit organizations such as BTCS. We maintain that those dimensions can be better guaranteed through a MO of these organizations.

Considering the work environment as proximal factors to the daily work of employees and those associated with the organization as a whole (Shalley et al. 2000), in many instances public employees were found to be dissatisfied because of the bureaucratic work environments of public organizations (Langer et al. 2019; Wright and Davis 2003). Coercive bureaucratic work environments, characterized by centralization and routineness, are often seen as places that reduce personal autonomy and organizational flexibility, kill creativity, undermine innovation and decrease JS (Cantarelli et al. 2016; Wright and Davis 2003). The need for public organizations to be more flexible and responsive to citizen needs (Langer et al., 2019) leads to a shift of public service from a bureaucratic-hierarchical form to a customer-oriented service (Ateş 2004) inspired by a MO (Walker et al. 2011).

It fosters more innovative and dynamic work environments where employees would feel empowered and more satisfied in their roles (Langer et al. 2019; Vigoda-Gadot and Meiri 2008). Attending to dimensions of a behavioral MO, stated at the introduction section, a knowledge management process is implicit to it that promotes JS (Kianto et al. 2016). The knowledge-creation enables employees to participate in planning and design activities and to utilize their creativity. Along with intra-organizational knowledge sharing, these key elements of MO promote intrinsic satisfaction in most employees because they enrich their jobs (Kianto et al. 2016).

For its part, a strong person-organization fit reflects common views as to the organization's goals, strategies, values, and adoption of new ideas and ventures, as well as a stronger identification with the tasks, principles and standards of work in the organizational environment (Vigoda-Gadot and Meiri 2008). Person-organization fit theory contends that employee-organization value congruence offers a stable and accurate perspective by which to understand attitudes and behavior in the workplace as well as feelings of satisfaction, being a very useful predictor of individual satisfaction in the workplace (Cantarelli et al. 2016; Jin et al. 2018; Langer et al. 2019). In mission-driven organizations like public non-profit ones, the psychological engagement in the organization increases a person's pride in it, a social intrinsic reward that in turn affects one's JS (Langer et al. 2019; Stater and Stater 2019). Particularly, the public administration literature points to prestige and external image as one of the most attractive features of public jobs, and public employees get satisfaction from serving the public (Perry et al. 2010; Stater and Stater 2019). The high correlation between pride and JS suggests that, when public organizations develop management actions that promote organizational pride among employees such as establishing customer focus by an MO, they will get more satisfied employees (Gouthier and Rhein 2011; Lee 2016). Thus, high levels of MO and most prominent values attributed to this modern public management (high responsiveness to stakeholders' needs, transparency or innovativeness) will translate into JS through a higher employees' pride in the organization. This allows us to state:

*H1: The higher the level of market (donor) orientation of the BTCS, the higher their employees' intrinsic JS.*

### ***Market Orientation and Organizational Commitment***

Human commitment has no substitute in organizations and is particularly important for client-oriented services

such as health care (Mintzberg 1996). Among the organizational practices that might contribute to OC, MO includes the generation of market intelligence, its dissemination across departments and the organization's responsiveness (Kohli and Jaworski 1990). In market-oriented organizations, employees share information, participate in decision making, and cooperate and work together towards a common goal (Grinstein 2008). Kohli and Jaworski (1990) suggest that a MO affords a number of psychological and social benefits to employees. Specifically, it leads to a sense of pride in belonging to one big organizational family in which all departments and individuals identify with and work toward the common goal of satisfying customers' needs and expectations. Accomplishment of this objective is posited to result in employees sharing a feeling of worthwhile contribution, a sense of belonging, and, therefore, commitment to the organization (Jaworski and Kohli 1993). This relationship was found in meta-analytical reviews of Kirca et al (2005) and Shoham et al. (2006), which included among the impacts of the MO employee consequences such as the OC in manufacturing/service organizations, and in non-profit organizations, respectively.

The relationship between market orientation and OC has been specially found for the affective dimension of the OC (e.g. Caruana et al. 1997; Jaworski and Kohli 1993). Organizational policies that promote knowledge sharing activities, related to the dissemination of knowledge across departments, contribute to develop affective OC because of the willingness of workers to share their knowledge. This relationship has been recently found by Chiu and Chen (2016), who tested it by considering the whole knowledge process capability (acquisition, transformation, and application of knowledge) of public organizations. Similarly, the responsiveness dimension of MO has an important influence on the affective commitment of employees in public organizations (Caruana et al. 1999). This emphasizes the importance for these organizations to monitor changes and respond to customer needs, and highlights the need for inter-organizational coordination as well as timely implementation of changes requested by customers.

Since the promulgation of rules within public organizations frequently results in excessive red tape and ambiguous goals, that may change how employees relate to their organizations (Stazyk et al. 2011), a MO of public organizations will provide the sufficient information to employees regarding their role, avoiding a situation of uncertainty that could negatively affect their commitment to the organization (Meyer and Allen 1997; Stazyk et al. 2011). Therefore, organizational goals emerging from a MO are key in facilitating affective commitment by ensuring an employee's work has direction and meaning (Stazyk et al. 2011).

In the changing environment of healthcare, where managers are constantly seeking new ways to stimulate employee commitment, a MO built on a culture of attention to stakeholders plays a pivotal role (Pinho et al. 2014). Therefore, MO and its emphasis on organizations' awareness of citizens' needs and demands is suggested as a core element of better managerialism (Shoham et al. 2006), and it is reasonable to expect that public non-profits MO is related to staff retention, attitudes and commitment (Duque-Zuluaga and Schneider 2008; Wymer et al. 2015). Therefore,

*H2: The higher the level of market (donor) orientation of the BTCS, the higher the level of OC of their employees.*

### ***Job Satisfaction and Organizational Commitment***

The literature on organizational behavior shows that JS and OC are strongly correlated (e.g. Meyer et al. 2002; Yücel 2012) and that evidence about causality between these two variables is mixed (e.g. Huang et al. 2012; Morrow 2011). However, there has been wide acceptance of models predicting JS as an antecedent of OC across cultures. Those models are based on the idea that, while an individual may feel JS soon after joining the organization depending on the work environment, the development of commitment is gradual and can be influenced by JS, along with other determinants of OC (Chordiya et al. 2017). In this sense, social exchange theory suggests that employees will reciprocate with a stronger commitment towards their organization if they perceive that their psychological contract is fulfilled, the organization supports and cares for them, and they experience satisfaction with their jobs (Byrne et al. 2011; Coyle-Shapiro and Kessler 2003; Dávila and Jiménez García 2012; McDermott et al. 2013). Also, it has been suggested that, when employees perceive that their jobs are meaningful, and therefore, their satisfaction is higher, they will feel a higher affective OC (Boselie 2010; Tummers and Knies 2013).

The influence of JS on OC has been observed for employees in the public sector (e.g. Balfour and Wechsler 1996; Chordiya et al. 2017) and in the specific context of health services (e.g. Caykoylu et al. 2011). Moreover, research has found that this influence is even stronger for public employees than for their private sector counterparts (Markovits et al. 2010). These authors suggest that public employees may enter into their



organizational environments with low expectations in relation to the intrinsic characteristics of the work, such as the options to promote creativity and change. This is because working in public organizations is usually linked to the idea of bureaucracy, standardized procedures and formality. Thus, when public sector employees experience satisfaction from their jobs and the internal environment, they will become more positively disposed to the organization and feel committed towards it. Therefore,

*H3: The higher the level of JS of the employees of BTCS, the higher their level of OC.*

### ***Organizational Commitment and Organizational Citizenship Behavior***

Several reviews of empirical research have shown the commitment-OCB association (e.g. Meyer et al. 2002; Ng and Feldman 2011; Podsakoff et al. 2000; Riketta 2002) and also that OC is a predictor of OCB (e.g. Dávila and Jiménez García 2012). On similar lines, previous research in the general context of services has found OC to be positively related to performance in the form of behaviors that go beyond job specification requirements such as the sharing of solutions to problems with coworkers and the contribution with innovative behavior, suggestions and ideas for service improvement (Jafri 2010; Lages and Piercy 2012). OC has been found to be a predictor of cooperation and of the employees' willingness to sacrifice and to accommodate (Raman and Zboja 2006). In the context of health services, Meyer et al. (1993) found positive correlations between citizenship behaviors among nurses and AC; Gellatly et al. (2006) found that hospital employees with strong AC are likely to be good organizational citizens, and Huang et al. (2012) also found that AC has a significant and positive influence on OCB related to the improvement of the organizations.

The theoretical explanation for this relationship could be related to the link between OC and motivation suggested by Meyer et al. (2004) and empirically demonstrated by Galletta et al. (2011) with a study involving Italian nurses. On similar lines, Battistelli et al. (2013) found that affective commitment is an antecedent of OCB on the basis of the AC relationship with intrinsic work motivation. The basic motive for an affectively committed employee to stay in an organization is the desire to do so (Dávila and Jiménez García 2012; Meyer and Allen 1991). The desire at the base of the emotional bond with an entity (that is AC) might be the same psychological condition that fosters intrinsic motivation. Discretionary work performance (e.g. OCB) rests on free volition; that is, these behaviors are free and autonomous and they could be more likely activated by

individuals who are intrinsically, or less externally, motivated (Battistelli et al. 2013; Ng and Feldman 2011). Similarly, for public sector employees, this intrinsic motivation to exhibit higher levels of pro-social behavior and social altruism, and to go above and beyond to advance the goals of their organizations, could be explained in terms of their realizing and enacting the public service-oriented values which motivate them (Boyd et al. 2018; Christensen et al. 2018; Jin et al. 2018). Relatedly, it has been argued that OC can enhance employees' altruistic spirit which, in turn, is an important determinant of extra-role behavior (Podsakoff et al. 2000), and that employees who have an affective attachment to the organization are more likely to commit to tasks that benefit their organization, rather than to focus on what their personal interests (Rho et al. 2015). Additionally, social exchange theory has also been used to explain the OC-OCB relationship. It was suggested that individuals who have a high level of affective OC will have greater intentions to contribute to the organization through dedicating more time and energy to it, and in this way engaging in OCB (Farzaneh et al. 2014; Ng and Feldman 2011; Yang 2012). Therefore,

*H4: The higher the level of OC of the employees of BTCS, the higher their orientation to OCB.*

Figure 1 shows the proposed model.

[Insert Fig1.pdf here]

## **Methodology**

### ***Sampling***

In Spain, blood donation is the responsibility of the so-called transfusion centers and services (BTCS), which are framed in the public National Health Service. BTCS are “health centers where activities are carried out to collect and analyze human blood or their components, regardless of the purpose that they are used for, and to treat, store and distribute them when they are used for transfusion” (Ministerio de Sanidad y Consumo 2005, p. 31292)<sup>1</sup>. It

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<sup>1</sup> The donation process begins when the donor arrives at the BTCS and complete a questionnaire about life habits and clinical conditions. At this moment the sanitary team announces donors their rights and obligations and check their age (they must be between 18 and 65 years old) and weight (they must be more than 50 kg). Before the blood extraction, the donor also has to sign a document in which he/she declares to be informed about the exclusion criteria (e.g. diseases such as hepatitis, malaria, AIDS or having unsafe sexual relationships). Next, the donor usually goes into a waiting room and, after a few minutes, he/she is interviewed by the staff who assess his/her suitability as a donor. With that aim, the sanitary team explores the donor to assess if he/she is able to donate. This exploration includes blood pressure, pulse and haemoglobin measurements. The initial questionnaire completed by the donor is also analyzed. Meanwhile, a personal history of the donor is

is important to point out that for the particular case of the Spanish blood donation system, competitor orientation is not so relevant, given that there are no competing blood collection organizations. Further, competition in terms of altruistic behavior is not so applicable to blood donors as it is to volunteers. Volunteers normally need to choose the social project(s) to which they wish to contribute with their limited time and/or financial funds. Unlike them, voluntary blood donors are motivated by a sense of moral duty, and the pride they feel for their contribution to the national health system (Snelling 2014) could only be attributable to blood donation. Therefore, this blood donation behavior does not compete with other behaviors of social volunteering.

Currently, there are 471 BTCS in Spain, which are distributed throughout the national territory. For this, the study population is comprised of BTCS' senior and middle management staff, as well as blood collection staff (physicians, nurses and promoters) who work directly and personally with donors at fixed or mobile venues belonging to the centers. This decision is due to the fact that successful implementation of market orientation in these organizations does not depend only on the commitment of senior management staff, but also of middle management staff and employees who work directly with donors (Lam et al. 2010).

An online survey was used for data collection. Field work started on the 2<sup>nd</sup> March, 2018, and finished on the 25<sup>th</sup> September, 2018. The sample size was 147 BTCS staff members. The demographic profile of the participants in the sample is shown in Table 1. The data show that the majority of the respondents were female (61.9%), aged between 36 and 55 (66.5%), who held university degrees (70.8%), the majority with seniority higher than 10 years (51.0%) and with a stable employment relationship (58.5%).

**Table 1** Sample profile

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Sex</b>		
Male	56	38.1
Female	91	61.9
<b>Age (years)</b>		
18-25	5	3.4
26-35	23	15.6
36-45	44	29.9
46-55	45	30.6
>55	30	20.4
<b>Education</b>		
Primary	7	4.8

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built. If the individual is accepted as a donor, he/she goes again into the waiting room until it is his/her turn to give blood. The blood extraction lasts approximately 8-12 minutes. Afterwards, the donor goes into a recovery room and he/she is advised to stay there for about 15 minutes, although he/she is free to leave at any time. The blood test completes the assessment of the donated blood, in order to guarantee its suitability to be transfused.

Secondary	35	23.8
University	21	70.8
<b>Seniority at the center (years)</b>		
0-5	39	26.5
6-10	29	19.7
11-15	25	17.0
16-20	19	12.9
>20	31	21.1
<b>Work relationship</b>		
Officer	11	7.5
Permanent statutory staff	19	12.9
Temporary statutory staff	28	19.0
Permanent employment contract	56	38.1
Temporary employment contract	29	19.7
<b>Total</b>	<b>147</b>	<b>100.0</b>

### *Measures*

*Donor Orientation (DO).* Several studies recognize the need to adapt the concept of MO to suit organizations that provide products or services that serve societal interests or non-profit goals (Bennet 1998; Hampton and Hampton 2004; Korunka et al. 2007; Parker et al. 2007; Price and Brodie 2001; Valero-Amaro et al. 2019). Thus, in this research the items measuring each dimension of MO focus on the market intelligence related to current, inactive and potential donors. To that end, we based our study on the seminal work made by Kohli and Jaworski (1990), which has seen many applications, validations, and refinements. Thus, we considered the three dimensions established by the authors: Intelligence Generation, Intelligence Dissemination and Responsiveness. The items that make up each dimension of the scale were adapted. Therefore, we eliminated some items due to the particular characteristics of the organizations that are responsible for blood donation and added new items to address the specific activities developed by such organizations when managing the three donor types. This scale was tested by ten BTCS officers. The meetings held with them have allowed us to streamline and adapt the scale to the blood donation sector.

*Job Satisfaction (JS).* To assess JS we based on seminal works widely used in research both in the private and public context, such as those by Hackman and Oldham (1974) on job diagnosis, and Weiss et al. (1967)'s Minnesota Satisfaction Questionnaire. We selected items intended to measure several aspects of intrinsic JS such as the interest of the work and the feelings of achievement and accomplishment.

*Organizational Commitment (OC).* We used items taken and adapted from the affective commitment scale by Meyer et al. (1993) and Mowday et al. (1979). To select the items, we followed suggestions found in the

literature on commitment related to the need to focus on the affective/emotional and pride aspects of commitment (e.g. Judge and Kammeyer-Mueller 2012).

*Organizational Citizenship Behavior (OCB)*. A variety of measures has been used to measure OCB, and several dimensions of the construct have been identified. However, the meta-analysis made by LePine et al. (2002) showed that these different dimensions are highly correlated with each other, and that OCB is the underlying latent construct. These authors suggest that this latent OCB construct should be redefined as a general tendency to be cooperative and helpful in organizational settings and that a measure of OCB should include items that capture the elements implied within the boundaries of the definition. On this basis, we used items related to the willingness to make personal sacrifices and go beyond the call of duty for the sake of the center/service, and to volunteer to do tasks which are not formally part of the job.

Table 2 shows the final items in the scales, which were seven-point Likert scales ranging from “totally disagree” to “totally agree.” All scales were pre-tested by 10 experts from the Spanish BTCS, who validated their content and their suitability for the blood donation field.

**Table 2** Definitive items of the scales

<b>Construct</b>		<b>Code/Items</b>	
<b>Donor Orientation (DO)</b>			
<b>Intelligence Generation (IG)</b>	Current donors as a source of information (D1_IG)	IG1	Every year we update data on donation evolution, number of donors and donor profiles in detail
		IG2	Every year we regularly analyze donor loyalty indicators (lost donors, recovered donors, new donors, retired donors, etc.)
		IG3	Every year we regularly distribute a survey to current donors to assess the quality of our services and donor satisfaction
	Inactive donors and non-donors as sources of information (D2_IG)	IG4	Every year we regularly distribute a survey to inactive donors to know what factors caused them to stop donating blood
		IG5	From time to time (no more than every five years) we regularly distribute a survey to non-donors to know what factors prevent them from donating blood
	Other sources of information (D3_IG)	IG6	Every year regular meetings are held with blood collection staff to gather data about donors
		IG7	Every year regular meetings are held between different divisions or departments to analyze data about donors
		IG8	We have a fluid relationship with blood transfusion centers/services from other Spanish autonomous communities to share information and experiences
		IG9	We often collect and analyze data on actions taken by the blood transfusion centers/services from other Spanish autonomous communities

<b>Intelligence Dissemination (ID)</b>	ID1	The staff responsible for marketing (or similar) activities hold regular meetings to share and discuss data collected on donors with other divisions or departments
	ID2	Donor information can be accessed by the staff who needs it in accordance with the Spanish Data Protection Act
	ID3	Donor information (perceived quality, satisfaction, loyalty, complaints, etc.) is released regularly at every level
	ID4	The staff responsible for marketing (or similar) activities is a driver for donation
	ID5	Our staff shares and discusses any new and useful information about blood transfusion centers/services from other Spanish autonomous communities
<b>Responsiveness (R)</b>	R1	We use collected data on donors to take actions aimed at improving our results
	R2	We offer quick answers to queries and suggestions made by donors through telephone calls, social media, the center's website, etc.
	R2	Employees are always willing to help donors
	R4	We will develop a yearly marketing plan based on professional criteria
	R5	When donors demand service improvements, every division or department involved works hard to meet their request
	R6	Our staff receives continuous training to provide donors with a top quality service
	R7	We assess the efficiency of donor recruitment and retention plans or programs
	R8	We invest a number of resources in developing software to plan, manage and control blood collection
	R9	We often carry out joint activities with blood transfusion centers/services from other Spanish autonomous communities aimed at improving donor recruitment and loyalty
<b>Job Satisfaction (JS)</b>	SAT1	My job is interesting
	SAT2	I have a feeling of achievement in my job
	SAT3	In my job I use my knowledge and capacities
<b>Organizational Commitment (OC)</b>	COM1	I enjoy talking about my center/service with people outside it.
	COM2	I have a strong feeling of belonging to my center/service
	COM3	I feel pride of working in this center/service
<b>Organizational Citizenship Behavior (OCB)</b>	OCB1	I will be willing to make a personal sacrifice for the sake of this center/service
	OCB2	I often go beyond duty to guarantee the well-being of this center/service
	OCB3	I often volunteer to do tasks that are not formally part of my job

## Analysis and Results

This section is structured in two parts. Firstly, we describe the analysis of the validity of the different measurement scales used in this research. Secondly, we test the proposed model using structural equation models (SEM). As a previous step, we analyzed the existence of common method variance (CMV) in order to test for spurious internal consistency that occurs when the apparent correlation among indicators is due to their common source. We tested for this by jointly including the thirty-two items of the different scales to detect the existence

of a single or various factors, one of which would explain most of the total variance. Five factors emerged explaining 80.27% of the variance. However, the first factor only explained 50.64%, while the remaining factors explained 29.63% of the variance. This result is within the scope of expectations because most items belong to the DO construct. Thus, common method variance does not appear to be a problem in this study, since no method factor emerged.

### *Analysis of the Validity of the Measurement Scales*

#### *Validation of the Scale of Donor Orientation*

Owing to sample size and the requirements of SEM application, the scale of DO needed to be validated in stages. Hair et al. (2014) suggest a minimum ratio of at least 5 respondents for each estimated parameter when using SEM. This limitation has led us to validate each dimension of DO firstly, and then the DO construct, based on the results obtained in the CFA for each dimension. Table 3 displays the results of the CFAs that were applied to the three dimensions of donor orientation. The results of the three models showed a suitable fit, since the values of CFI were higher than 0.95 and the values of RMSEA did not exceed the recommended maximum of 0.08. The models demonstrated acceptable individual reliability, since the relationship between each item and its respective dimension/construct was statistically significant, with standardized regression weights higher than or very close to 0.7, and with *t* statistic values also being significant. The measurements of internal consistency had very satisfactory levels. Thus, the values of composite reliability (CR) were higher than 0.70 and all the extracted variances (AVE) exceed 0.50. The Cronbach's alpha values corroborated those obtained in the composite reliability. These results indicated that the measurement models of the three dimensions of the donor orientation could be considered as valid.

**Table 3** CFA for the dimensions explaining Donor Orientation

Relationships		Standardized Estimators	<i>T</i>	<i>P</i>	Internal Consistency
<b>Intelligence Generation (IG)</b>					
<b>Fit Measures: <math>\chi^2=44.304</math>, <math>p=0.007</math>, CFI=0.971, NFI=0.941, RMSEA=0.076</b>					
D1_IG	← IG	0.780			CR=0.871
D2_IG	← IG	0.887	6.354	0.000	AVE=0.692
D3_IG	← IG	0.826	6.170	0.000	$\alpha=0.930$
IG1	← D1_IG	0.797			CR=0.873
IG2	← D1_IG	0.943	9.889	0.000	AVE=0.698

IG3	←	D1_IG	0.754	8.398	0.000	$\alpha=0.869$
IG4	←	D2_IG	0.964			CR=0.929
IG5	←	D2_IG	0.898	12.269	0.000	AVE=0.868 $\alpha=0.930$
IG6	←	D3_IG	0.893			
IG7	←	D3_IG	0.918	14.582	0.000	CR=0.947
IG8	←	D3_IG	0.908	13.056	0.000	AVE=0.818 $\alpha=0.942$
IG9	←	D3_IG	0.898	12.777	0.000	
<b>Intelligence Dissemination (ID)</b>						
<b>Fit Measures: <math>\chi^2=2.036</math>, <math>p=0.844</math>, CFI=1.000, NFI=0.994, RMSEA=0.000</b>						
ID1	←	ID	0.850			
ID2	←	ID	0.525	5.975	0.000	CR=0.889
ID3	←	ID	0.831	10.756	0.000	AVE=0.623
ID4	←	ID	0.768	9.732	0.000	$\alpha=0.899$
ID5	←	ID	0.915	12.065	0.000	
<b>Responsiveness (R)</b>						
<b>Fit Measures: <math>\chi^2=51.003</math>, <math>p=0.003</math>, CFI=0.960, NFI=0.921, RMSEA=0.078</b>						
R1	←	R	0.884	10.546	0.000	
R2	←	R	0.575	6.345	0.000	
R3	←	R	0.549	6.427	0.000	
R4	←	R	0.810			CR=0.973
R5	←	R	0.859	10.237	0.000	AVE=0.589
R6	←	R	0.767	9.040	0.000	$\alpha=0.929$
R7	←	R	0.813	9.150	0.000	
R8	←	R	0.741	8.342	0.000	
R9	←	R	0.701	7.635	0.000	

The second stage of the validation process was to validate the donor orientation scale, using its dimensions as observed variables. To carry out this validation, we created a new variable for each dimension of donor orientation (IG, ID, and R). For this purpose, we used a weighted average of the scores given by the respondents to the items that made up each dimension, weighted by the regression weights of each item in the three previous CFA. These variables were labelled with the same name given to each dimension (IG, ID y R). The results of this validation (see Table 4) showed that the scale was valid. The fit model was satisfactory and the measurements of both individual reliability and internal consistency showed very satisfactory levels.

**Table 4** CFA for the scale of Donor Orientation

Relationships		Standardized Estimators	<i>t</i>	<i>p</i>	Internal Consistency	
<b>Fit Measures: <math>\chi^2=0.997</math>, <math>p=0.318</math>, CFI=1.000, NFI=0.995, RMSEA=0.000</b>						
Intelligence Generation (IG)	←	BDO	0.971		CR=0.977	
Intelligence Dissemination (ID)	←	BDO	0.923	15.612	0.000	AVE=0.907
Responsiveness (R)	←	BDO	0.933	15.695	0.000	$\alpha=0.951$



*Validation of the Scales Related to Employee Attitudes (JS and OC) and OCB*

The measurement models arising from JS, OC and OCB were one-dimensional and composed of three items (see Table 5). The results showed that the models, besides not being statistically significant ( $p > 0.01$ ), did present very satisfactory values for other indicators of global fit ( $CFI > 0.95$ ,  $NFI > 0.95$ ,  $RMSEA < 0.08$ ). Therefore, we could conclude that the specified models adequately reproduced the observed covariance matrices. The models showed satisfactory individual reliabilities, since the relationship between each item and its construct was statistically significant, with standardized regression weights greater than or closer to 0.7 and  $t$  statistic values also being significant. As for the measurements of internal consistency, the values of CR exceeded 0.70, and the values of AVE exceeded 0.5. The values of Cronbach's alpha corroborated those obtained for the composite reliabilities. These results therefore indicated that these three models were valid.

**Table 5** CFA for JS, OC and OCB

Relationships		Standardized Estimators	$t$	$p$	Internal Consistency
<b>Job Satisfaction (JS)</b>					
<b>Fit Measures: <math>\chi^2=1.449</math>, <math>p=0.229</math>, <math>CFI=0.998</math>, <math>NFI=0.994</math>, <math>RMSEA=0.055</math></b>					
SAT1	←	SATISF	0.814		CR=0.881
SAT2	←	SATISF	0.929	12.577	0.000 AVE=0.712
SAT3	←	SATISF	0.781	10.562	0.000 $\alpha=0.882$
<b>Organizational Commitment (OC)</b>					
<b>Fit Measures: <math>\chi^2=0.570</math>, <math>p=0.450</math>, <math>CFI=1.000</math>, <math>NFI=0.998</math>, <math>RMSEA=0.000</math></b>					
COM1	←	ORGC0M	0.873		CR=0.913
COM2	←	ORGC0M	0.865	13.938	0.000 AVE=0.778
COM3	←	ORGC0M	0.907	15.084	0.000 $\alpha=0.915$
<b>Organizational Citizenship Behavior (OCB)</b>					
<b>Fit Measures: <math>\chi^2=0.008</math>, <math>p=0.927</math>, <math>CFI=1.000</math>, <math>NFI=1.000</math>, <math>RMSEA=0.000</math></b>					
OCB1	←	OCB	0.752		CR=0.808
OCB2	←	OCB	0.860	8.902	0.000 AVE=0.586
OCB3	←	OCB	0.673	7.611	0.000 $\alpha=0.796$

Meanwhile, the discriminant validity of the four constructs was tested-for. There is discriminant validity if the correlations between the constructs are lower than the square root of the AVE of each one. Table 6 shows the results of the analyses undertaken to this end. It can be seen that the square roots of all the AVE were greater than the elements not on the diagonal. Therefore, it could be affirmed that the scales also possessed discriminant validity. The mean values collected in this table suggest that BTCS staff had satisfactory mean levels of JS, OC

and OCB. These mean values corresponded to the means of the items pertaining to each construct, which were weighted with the standardized estimators obtained from the CFA. With regard to DO, a similar procedure was used, albeit based on its dimensions. Its mean value was not satisfactory ( $M=4.32$ ). In this sense, the data indicated that mean values for each of the three dimensions were not greater than 5, with Intelligence Generation being the lowest ( $M=3.82$ ), followed by Dissemination ( $M=4.32$ ) and finally Responsiveness ( $M=4.84$ ). However, the three dimensions were highly correlated, with values between 0.873 and 0.887, which indicated that they were converging to a common construct (DO), supporting the convergent validity of the scale.

**Table 6** Evaluation of the discriminant validity

Constructs	Mean	SD	1	2	3	4
<b>DO (1)</b>	4.32	1.60	0.952	---	---	---
<b>JS (2)</b>	5.82	1.33	0.592***	0.844	---	---
<b>OC (3)</b>	6.14	1.54	0.626***	0.511***	0.882	---
<b>OCB (4)</b>	5.53	1.33	0.405***	0.370***	0.177**	0.766

Note: The values on the diagonal correspond to the square root of the average variance extracted (AVE) for each construct

\*\*\*  $p \leq 0.01$

\*\*  $p \leq 0.05$

### *Hypotheses Testing*

To test the hypotheses, SEM was applied, using the variance-covariance matrix as input data. The results of the proposed model showed a good goodness-of-fit [ $\chi^2=90.107$ ,  $p=0.000$ ; CFI=0.963; NFI=0.922, RMSEA=0.074], because CFI value was higher than 0.95 and RMSEA value was lower than 0.08. These results, shown in Figure 2, demonstrated that (1) DO was a direct antecedent of JS and OC ( $\beta=0.616$ ,  $p=0.000$  and  $\beta=0.223$ ,  $p=0.023$ ), thus accepting H1 and H2; (2) JS was a direct antecedent of OC ( $\beta=0.641$ ,  $p=0.000$ ), thus accepting H3; (3) OC was a direct antecedent of OCB ( $\beta=0.607$ ,  $p=0.000$ ), thus accepting H4; and (4) the proposed model explained 37.9% of JS, 63.8% of OC and 36.9% of OCB.

[Insert Fig2.pdf here]

On the other hand, and in order to provide further support for future research, it was deemed appropriate to adjust three new models, one for each dimension of DO. Each of the three dimensions were included in the corresponding model as latent variables, and not as observed variables. Although it would have been appropriate to adjust a single model with the three dimensions as latent variables, as well as to analyze their relationships with the other constructs (JS, OC and OCB), the limitations derived from the sample size in terms of the number of parameters to estimate did not advise this way of proceeding. The results of these three models are shown in Figure 3. As seen, the direct effect of the three dimensions of DO on JS was significant, the most relevant being the effect of IG and R ( $\beta=0.608$ ,  $p=0.000$  and  $\beta=0.560$ ,  $p=0.000$ ). In fact, the model is able to explain more than 30% of the JS (37.0% y 31.3%, respectively). Regarding the influence of the three dimensions of DO on the OC,

results show differences among them. There was no direct and significant effect of IG on OC ( $\beta=0.177, p=0.106$ ) and R had a higher direct effect on OC than the ID ( $\beta=0.221, p=0.006$  and  $\beta=0.189, p=0.013$ , respectively).

[Insert Fig3.pdf here]

## **Conclusions**

### ***Discussion of results and managerial implications***

This research allows us to conclude that organizational practices and systems at the public sector contribute to explain employees' positive attitudes and behaviors. Specifically, their satisfaction and commitment can be improved and it would likely lead to an extra-role behavior when a market (donor) orientation is implemented. MO of BTCS has shown to enhance both directly and indirectly (through JS) the level of OC and ultimately OCB. Thus, results obtained contribute to the new public management literature by clarifying the doubts of the public managers in relation to whether MO is good or bad for organizational performance. This is an important finding for the public healthcare context, where managers constantly seek new ways to stimulate employee commitment and satisfaction as drivers of organizational performance.

Moreover, our results provide evidence that support the line of arguments stating that, in order to explain public sector employee satisfaction and commitment, it is needed to go beyond the individual characteristics and look at the organizational culture, systems and practices (e.g. Austen and Zacny 2015). One of the most important paradigms that have been considered to explain individuals' behavior in public organizations has been their public service motivation, and it has been abundant the research in this field that has focused on determining its sociodemographic antecedents (e.g. age, gender or educational level). However, organizational variables have been barely considered among those antecedents (Austen and Zacny 2015). This research shows that certain elements of the organizational context, such as being oriented to the main stakeholders, may contribute to accurately predict employee attitudes and behavior.

This study provides some managerial implications for BTCS. Firstly, it is necessary to allocate human, economic and technical resources to implement a DO in BTCS. Without these resources it is not possible to create an information system that supports the generation of useful, complete and updated information on blood donors

and non-donors, which should be shared and discussed within the organization to design an appropriate action plan. The implementation of this management philosophy is fundamental given the positive and direct effects it has on satisfaction and commitment of BTCS's employees. Specifically, this work shows that employee satisfaction is reinforced by this culture as a whole. Thus, satisfaction increases when employees feel involved in the information generation, if they have access to such information, and when they perceive that their organizations are proactive in designing actions aimed at improving donor satisfaction. Therefore, it is important to allow periodic meetings among employees of the different BTCS to capture and disseminate information, as well as to share the results of certain actions and developed practices.

Likewise, results show that proactive planning of actions, aimed at responding to donors' needs is essential to increase employee commitment to BTCS. Therefore, BTCS might reinforce employee commitment by avoiding to be reactive to donors' claims; that is, to offer them only "ad hoc" answers when they manifest to be neglected by the system. These improvised answers to donors would negatively affect both employee satisfaction and commitment.

All of the above highlight the importance of the leadership behavior of the BTCS's managers in order to develop a DO in their organizations. Therefore, leaders in these NPOs should act as "marketing champions" (Noble 2005) with a strong personal commitment to the organization's goals, and also well developed interpersonal skills which influence their employees to behave according to these principles. Also, attention should be given to new models of public management and their associated values, the ways in which work environments support or neglect such values, and how these values are conveyed to and understood by employees. While positive values such as higher responsiveness or innovativeness implicit to the MO have many advantages, they may be counterproductive unless they fit comfortably with the employees' values, that is, unless employees identify with the emerging goals and values of the broader organization (Vigoda-Gadot and Meiri 2008). Therefore, adequate human resources practices in terms of selection, training and communication should be performed in order to enhance the needed fit between the organizational culture and employee attitudes and behavior.

Therefore, NPO cannot ignore benefits of MO in terms of employee attitudes and behaviors believing that this orientation is important to attract new donors only (Padanyi and Gainer 2004). NPOs should determine their own capability of being market-oriented by sharing the importance of being market-oriented among all employees.

Perhaps administrative works and governmental support of NPO might be the main reasons for not doing so. However, the main cause of not being market-oriented among NPOs may be the management style. Still, the dominant style is traditional management, which focuses on outcomes, disregarding beneficiaries' or customers' needs. Being market-oriented starts to change managers' mentality and style (Alanazi 2018).

### ***Limitations and Directions for Future Research***

Some limitations of this research should be taken into account, which can open avenues for new research. First of all, this study is contextualized to the Spanish national culture. Since previous research has shown that organizational climate variables vary across nations depending on cross-national cultural differences and contextual differences in civil service systems (e.g. Chordiya et al. 2017), new research could be carried out that replicate this one and allows to compare its results with those obtained at different cultural settings.

Secondly, as it was explained previously, the Spanish donation system is composed by non-profit organizations which offer no payments to blood donors. However, the context in other countries may include different kinds of organizations such as non-profit blood centers, for-profit blood centers, transfusion institutes, and public and private hospitals (e.g. Boenigk et al. 2011). In these cases, where there is competition for the donor, future research could try to analyze, for example, whether a good donor service experience based on positive employee attitudes and behavior could constitute an incentive that could compensate the lack of payment in public non-profit BTCS. Also, it would be interesting to compare how the concept of market (stakeholder) orientation differs between these different types of blood donation organizations, and whether the attitudes and behavior of their employees are influenced by these different ways of understanding the "market". Theoretically, and similarly to public NPOs, private NPOs would require an integrated management by which the organization shows a sensible attitude, mainly towards beneficiaries and resource(monetary and non-monetary) donors, with whom it must establish and maintain valuable and satisfactory relationships (Álvarez-González et al. 2002). Specifically, in the case of donations, the effective attraction of a donor would require somewhat more than providing the sensation of collaborating in a fair cause (Gallagher and Weinberg 1991). Specifically, this attraction demands a strategic orientation that helps the donor to see the benefits that will be generated in the long term thanks to their current collaboration. In short, the NPO must satisfy the reasons which motivated donations to a higher degree than the different alternatives available (Álvarez-González et al. 2002). Additional research comparing the concept of market (stakeholder) orientation between different types of blood donation

organizations would allow to retest previous research on successful NPOs in terms of whether organizations focused on determining and satisfying donors' needs might obtain a more successful performance than those that mainly focus on simply reacting to competitors actions (Alanazi 2018; Kohli and Jaworski 1990; Narver and Slater 1990).

Thirdly, and in relation to the measures of the dependent variables in the study, we have used a measured JS based on intrinsic aspects. However, there is evidence that certain extrinsic aspects of work, such as the level of bureaucratic red tape, can influence the level of OC (e.g. Stazyk et al. 2011). Also, apart from the affective dimension, other dimensions of commitment such as the normative and the continuance ones has been considered as also influencing public organizations work environment (e.g. Sobral et al. 2017). Therefore, future research could measure these other dimensions of JS and OC to test their effect both in building the whole concepts of JS and OC and in explaining the relationship between these two constructs and between OC and OCB. Also, the extent to which MO influences JS and OC, and even each of their dimensions, when those extrinsic and non-affective dimensions are included in the analysis could be tested. Finally, it is known that an MO is built on an implicit value of responsiveness, and we have sustained that employees' pride in the organization that defends this value would likely improve their satisfaction in their jobs. However, future research should explicitly explore the congruence between individuals and organizations in values attributed to modern reforms in public management such as those underlying to MO. This is important because if individuals are operating with old codes of behavior and conservative perceptions of the public work place, it may be reflected in their actions toward the stakeholders' demands and needs of the public organization (Vigoda-Gadot and Meiri 2008). Therefore, a specific and explicit analysis of this value congruence between the organization and their employees is needed.

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Figure 1

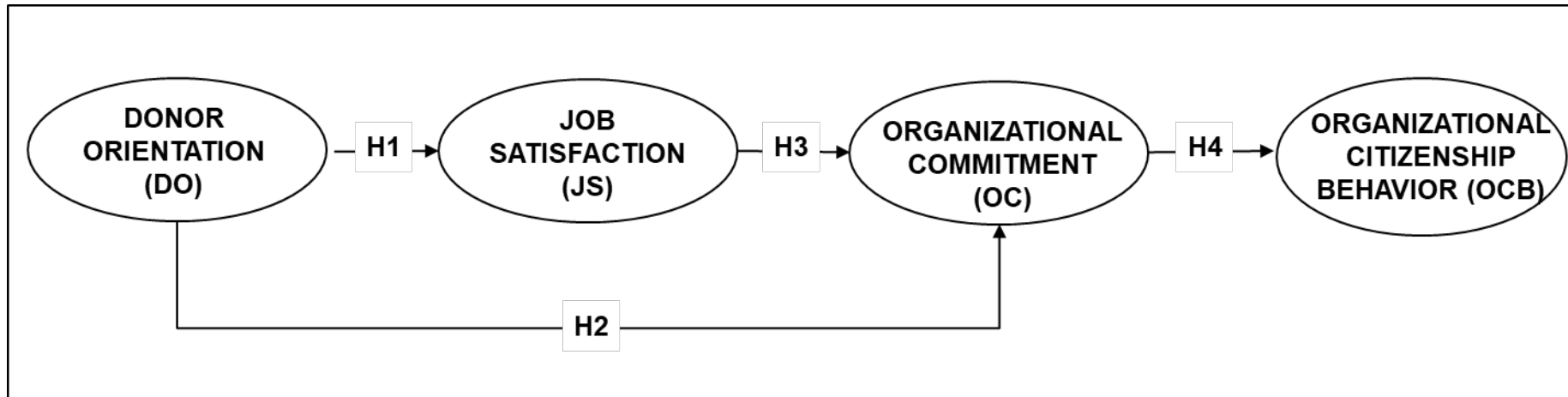


Figure 2

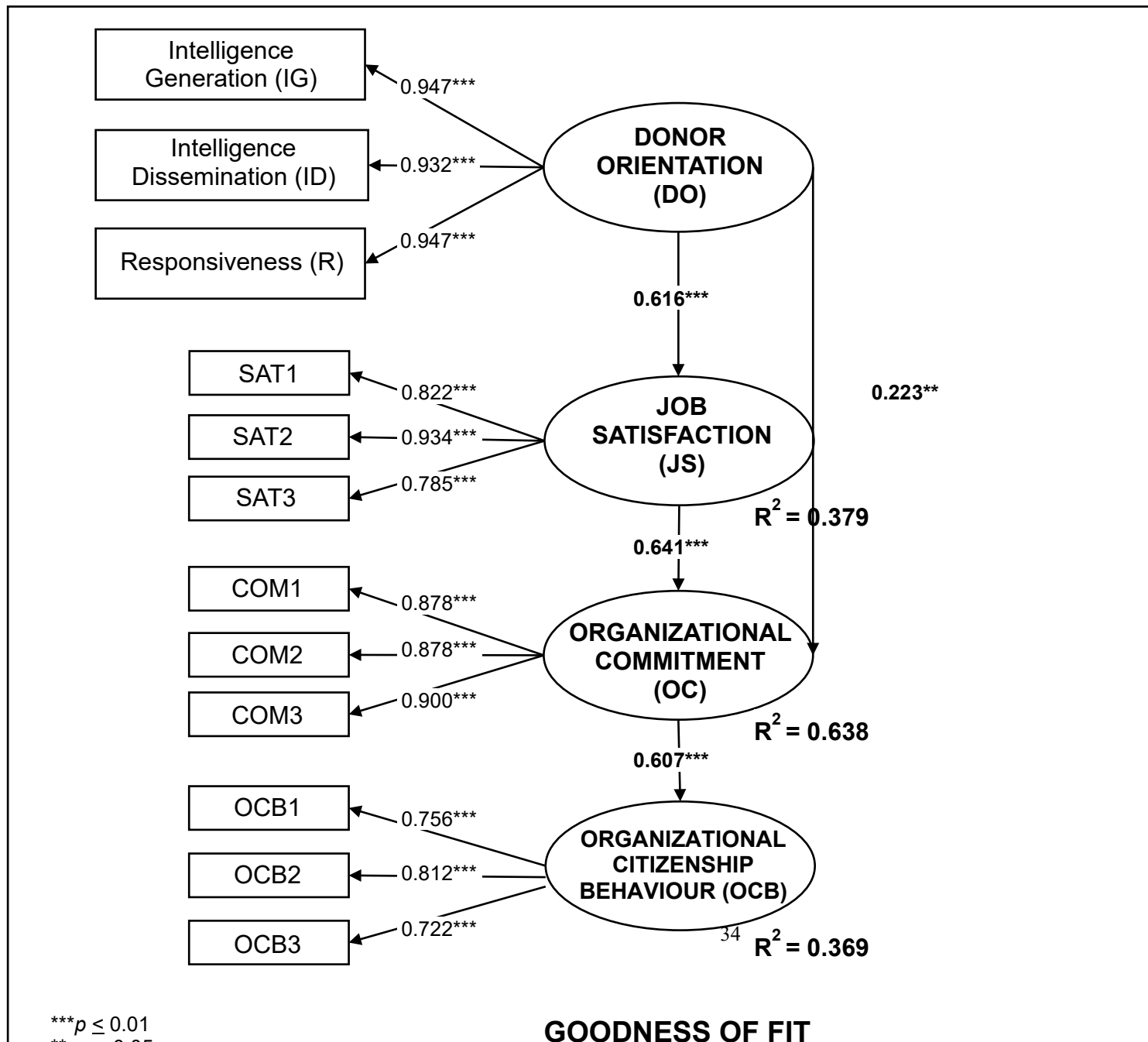
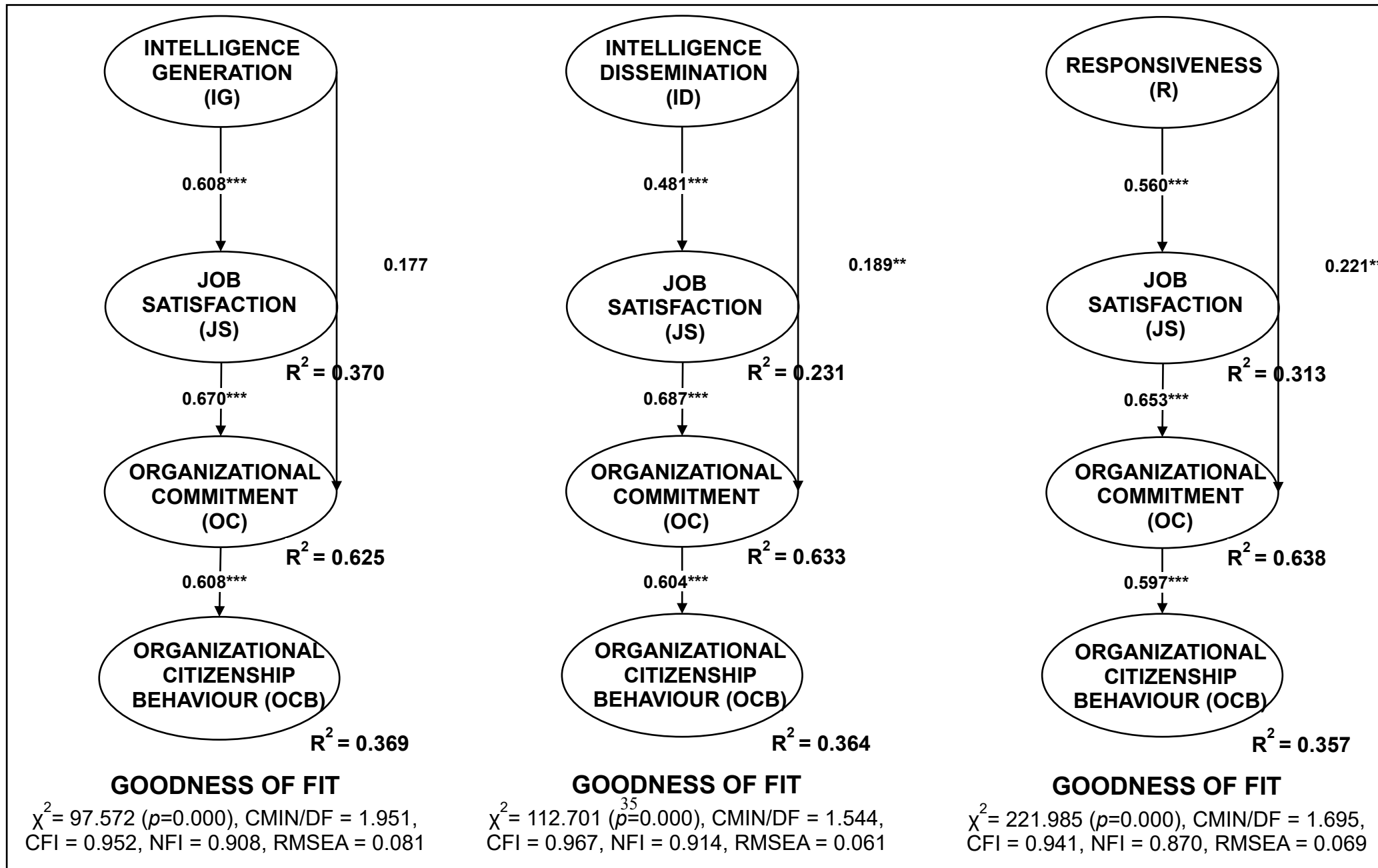


Figure 3



\*\*\* $p < 0.01$