

**Exploring the Relationship between Public Service Motivation,  
Prosocial Motivation, and Civil Servants' Organizational  
Citizenship Behavior:  
Findings from a Systematic Literature Review**

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## **Abstract**

Over the past few decades, scholars have devoted considerable time and energy to gaining insight into public sector organizational citizenship behavior (OCB) resulting from various motivations. To better serve the public, civil servants are frequently required to go above and beyond what is contractually required. When it comes to serving the public, the role of public service motivation (PSM) and related concepts, including prosocial motivation (PROSM), should be highlighted. According to previous research, because PSM and PROSM have a direct relationship with OCB, understanding how these concepts are related can help in finding answers to issues faced by public institutions. In addition, the lack of explicit consensus on the conceptual independence of PSM and PROSM and the scattered research on their relationship with OCB led the authors of this study to examine the relationship between them among public-sector's civil servants. This study explores the relationship between PSM, PROSM, and civil servants' OCBs. By conducting a systematic literature review (SLR) of 29 out of 458 studies, this study synthesizes 66 cases of empirical evidence on the relationships between the types and dimensions of these three concepts to reveal relationships between them. Of the examined 29 studies, 27 are on the relationship between PSM and OCB, and two are on the relationship between PROSM and OCB. This review revealed that the relationship between PSM and OCB is direct, moderating, mediating, moderated mediating, buffering, and indirect through other factors. In comparison, the relationship between PROSM and OCB is direct and indirect. The third question of this study (PSM-PROSM-OCB relationship) was left unanswered because of the unavailability of studies that simultaneously examine all three concepts, which is this study's most significant limitation.

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## **List of Abbreviations/Names**

APP	Attraction to Policymaking
CO-OCB	Change-Oriented Organizational Citizenship Behavior
COM	Compassion
COR	Conservation of Resources
CPI	Commitment to the Public Interest
CSR	Corporate Social Responsibility
HR	Human Resource
HRM	Human Resource manager
JS	Job Satisfaction
OCB	Organizational Citizenship Behavior
OCB-E	OCB toward the Environment
OCB-I	OCB toward Individuals
OCB-O	OCB toward the Organization
POS	Perceived Organizational Support
PROSM	Prosocial Motivation
PSM	Public Service Motivation
PSS	Perceived Supervisor Support
Sep.	September
SS	Self-Sacrifice
SLR	Systematic Literature Review
TPB	Theory of planned behavior
UK	United Kingdom
US	United States

# 1 Introduction

Human resources (HR) are one of the most crucial forms of an organization's capital (Hermawan et al., 2020). Research has demonstrated that all organizations want to know what drives their employees (Piatak & Holt, 2020), and scientists across disciplines have concluded that motivation plays an essential role in guiding employees (Chaman et al., 2021). Motivated employees advance their organization's performance (Anderfuhren-Biget et al., 2010; Houston, 2000). Various theories of motivation exist (Veličkovska, 2017), such as those of PSM, PROSM, and altruism, which have been proposed in the literature over several decades (Ahn & Campbell, 2022; Ritz et al., 2016; Schott et al., 2019). PSM is a feature of the public sector that explains an individual's desire to act for the benefit of society at large (Perry & Hondeghem, 2008; Schott et al., 2019). According to some researchers, in today's society, public services are motivated to focus more on employees' organizational commitment than on the benefits of higher salaries and rewards (Boukamcha, 2022). In addition to PSM, a discussion is ongoing regarding PROSM. PROSM may be selfish, when its ultimate goal being to increase personal well-being; by contrast, when the ultimate goal is to increase the well-being of others, this indicates altruism and a sense of humanity (Caprariello & Reis, 2021; Grant & Berg, 2011; Lishner & Stocks, 2017).

Scholars' interest in and research on PSM has significantly increased over the past decade (Bozeman & Su, 2015). Therefore, the fact that PSM is so popular makes it hard to understand because scholars constantly add new concepts and measures, rarely taking anything away (Bozeman & Su, 2015). In addition, Bozeman and Su (2015) stated that "service motivation," "altruism," "helping others," and "prosocial motives" are concepts related to PSM. Therefore, differentiating PSM from similar concepts is always challenging for scholars. In addition, the authors claimed the following: "If PSM research aims to make a distinctive contribution to social knowledge, then sharper boundaries are required" (p. 702). In response to Bozeman and Su's (2015) call for more efforts to improve the concept of PSM in association with related concepts, many articles have been published since then (e.g., Ritz et al., 2020; Schott et al., 2019).

The similarities and differences between PSM and PROSM are discussed as follows:

Wright et al. (2013) examined the advantages and disadvantages of global PSM measures compared with multidimensional PSM. They provided empirical evidence for global scales to test their concurrent validity. Since a five-item PSM measure and a four-item PROSM measure



were empirically identical, the authors regarded PSM and PROSM to be identical (Wright et al., 2013). Rainey and Steinbauer (1999, p. 23) defined PSM as “a general altruistic motivation with the ultimate goal of serving the welfare of a group of people, a state, a nation, or humanity as a whole” (Rainey & Steinbauer, 1999). Considering this definition, Andersen et al. (2018, p. 290) defined PROSM as “the desire to benefit other people and society.” Therefore, they regarded PSM as a specific type of PROSM linked to public service provision (Andersen et al., 2018). In addition, Ritz et al. (2020) used the term “two sides of the same coin” to explain the relationship between PSM and PROSM as well as the relationship between these “other-regarding” types of motivation with the behavioral outcomes of public employees. They found that PSM and PROSM are theoretically and practically different concepts, leading to different behavioral outcomes (Ritz et al., 2020). Thus, they explained their finding as follows: “If we flip a coin, it usually falls on one side. If it falls on the ‘public service motivation side’, different behavioral consequences can be expected than if it falls on the ‘prosocial motivation side’” (Ritz et al., 2020, p. 990).

According to Schott et al. (2019), the similarities and differences between PROSM and PSM can be delineated based on the following three critical criteria: the reference category of “beneficiaries,” the reference category of “temporal focus,” and the stages of human action (motivation versus behavior; Schott et al., 2019). As a result, numerous researchers have linked these concepts to behavioral outcomes for a deeper understanding, which is at the center of the present study’s attention.

If an organization’s employee, by personal choice, expends additional energy and time at work beyond simply completing their job’s written requirements (Bismala, 2019; Jahangir et al., 2004), this is referred to as OCB. More precisely, OCB is any voluntary efforts of employees in the work environment that increase productivity, efficiency, profitability, and innovation (Jha & Jha, 2010; Organ, 1988). Therefore, OCB is a prosocial workplace behavior that has attracted the interest of management and public administration researchers (Piatak & Holt, 2020).

Many articles have been written in this field over several decades (Lee et al., 2013; Podsakoff et al., 2009). For instance, Asmaryadi et al. (2020) investigated the effects of PSM on medical specialists’ OCB in hospitals and found a direct relationship between PSM and OCB. Specifically, doctors with high PSM levels also had high OCB levels (Asmaryadi et al., 2020). In addition, Arshad et al. (2021) explored the impact of PROSM on OCB and organizational commitment, including the mediating role of managerial support. They demonstrated that

managerial support as a mediator has a positive effect on the relationship between PROSM and outcomes, such as employees' organizational commitment and citizenship behavior (Arshad et al., 2021). Therefore, to achieve better outcomes, the advancement of managerial support is essential (Arshad et al., 2021). Furthermore, Campbell (2022) studied change-oriented OCB (CO-OCB) in public organizations and demonstrated that in the anti-change organizational context, employees with high levels of PSM tend to sacrifice for the public good and exhibit CO-OCB (Campbell, 2022).

On the other side, scholars who have investigated the antecedents of OCB have also focused on the relationship between PSM and/or PROSM with OCB.

For instance, Shim and Faerman (2017) focused on the antecedents of public employees' OCB. They gathered data from a field survey with public employees working for local government organizations in South Korea. They found that PSM is one of the critical antecedents of government employees' OCB (Shim & Faerman, 2017).

Consequently, PSM and PROSM are directly related to OCB (Arshad et al., 2021; Piatak & Holt, 2020), both in terms of OCB's antecedence and public service and PROSM's behavioral consequences. Therefore, the present authors decided to address this relationship in the current study.

## **1.1 Research purposes**

As discussed in the previous section, some studies have demonstrated conceptual equality between PSM and PROSM (e.g., Jensen & Andersen, 2015; Wright et al., 2013), while others have indicated that PSM is a specific type of PROSM (Andersen et al., 2018). Since OCB is a common behavioral consequence, it is ideal for distinguishing between the two motivation concepts (Chahal & Mehta, 2010). Furthermore, it is necessary to study OCB and its factors due to the importance of behaviors such as motivation for responding to multiple demands in environmental factors (Kao, 2017). Therefore, many studies have been conducted on the relationship between PSM, PROSM, and OCB in the literature. Thus, the present authors realized the need for a SLR on these relationships. As a result, the central focus of this study was on exploring the relationship between PSM, PROSM, and civil servants' OCB through conducting an SLR.

By conducting a SLR of the present scientific literature, this investigation aims to accomplish two specific goals.

First, it presents an overview and evaluation of the depth of academic knowledge from a focused perspective. More specifically, it identifies the concepts and variables that have been employed and identified by scholarship to this point.

Second, it systematically analyses empirical evidence from around the world to develop a more comprehensive explanation of the relationship between PSM and PROSM and how this affects OCB in public agencies.

This study aimed to identify the model of PSM and PROSM in the OCB of civil servants. Accordingly, the authors sought to answer the following three questions through the SLR:

Q1: What is the relationship between PSM and OCB?

Q2: What is the relationship between PROSM and OCB?

Q3: What is the relationship between PSM, PROSM, and OCB?

Since various conceptualizations also exist regarding PSM, PROSM, and OCB in the literature from the last few decades (Hoffman et al., 2007), obtaining conceptual clarity regarding the types of motivation should assist in understanding different behaviors (Ritz et al., 2020; Schott et al., 2019). Therefore, the authors first addressed the definitions of PSM, PROSM, and OCB to ensure a deep understanding of the relationships and the framework of the study.

Figure 1 presents a Venn diagram that visualizes the research questions:

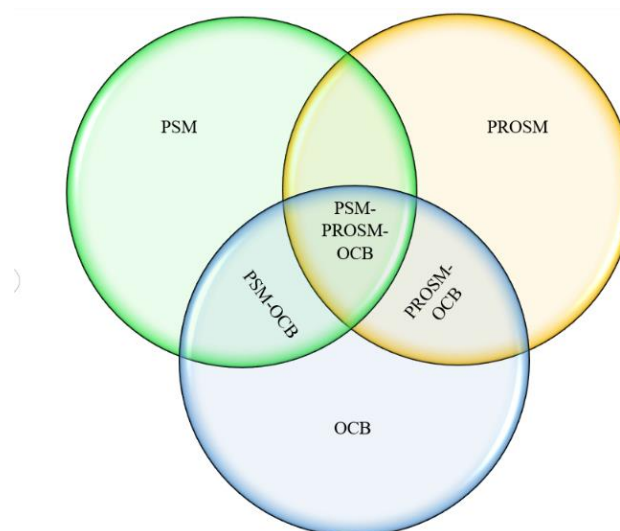


Figure 1: Expected connections between the concepts

Following the presentation of a clear conceptualization of the concept, the systematic search and coding procedure reveals a clearer relationship between them. Next, a summary of the results is presented, followed by a discussion of the results, as well as the limitations of the study and the implications for future research.

## **2 Theory**

In this section, definitions and conceptualizations of PSM, PROSM, and OCB are presented so that their respective structures and distinctions can be understood in greater depth.

### **2.1 Definition and Conceptualization of PSM**

When Rainey examined the research of Buchanan (1975) regarding the differences between public and private managers, he observed the following: In response to questions about public services, public managers give a higher rating than private managers (Rainey, 1982 as cited Vandenberg & Schott, 2020). Thus, in 1982, Rainey was the first to use the term “public service motivation” to explain this observation.

Later, Staats (1988, p. 601) defined PSM as “a concept, an attitude, a sense of duty – yes, even a sense of public morality” (Staats, 1988). In addition, Perry and Wise (1990, p. 368) formalized the concept of PSM, defining it as “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organization” (Perry & Wise, 1990, p. 368). Here, the term “motives” refers to the psychological needs and shortages that an individual wishes to solve (Perry & Wise, 1990). Since the original definition of PSM is ambiguous and intangible, many researchers have redefined it (Vandenberg et al., 2018).

According to Brewer and Selden (1998), the term “public service” has dual connotations. The first interpretation refers to working for the common welfare of society, whereas the second interpretation focuses on the workforce in the public sector. Based on the first interpretation, PSM is a universal characteristic that extends beyond the public sector. By contrast, based on the second interpretation, PSM has apparent consequences for the public sector (Brewer & Selden, 1998). The authors asserted that these ambiguities lead to confusion.

To solve this confusion, they redefined these two perspectives as follows: First, PSM is what drives people to do meaningful work for the public good; and second, PSM is common in public service, while many people equate public service with government service (Staats, 1988). Therefore, they claimed that the first definition demonstrates a link between PSM and altruistic motivation. In addition, Rainey and Steinbauer (1999, p. 23) explained that PSM can

be characterized as “a general altruistic motivation with the ultimate goal of serving the welfare of a group of people, a state, a nation, or humanity as a whole” (Rainey & Steinbauer, 1999). Therefore, the definition proposed by Brewer and Selden was confirmed by Rainey and Steinbauer (1999). Furthermore, PSM is one of the reasons that would make and keep employees interested in public sector work (Moynihan & Pandey, 2007a; Potipiroon & Ford, 2017).

Since PSM is directly related to working in the public sector (Steen & Rutgers, 2011), addressing the difference between *public service motivation* and *public sector motivation* is worthwhile, as highlighted by Perry and Hondeghem (2008). A wide variety of factors draw people to work for and in the public sector (Perry & Hondeghem, 2008). Therefore, extrinsic motivators are traditionally available in the public sector, which attracts people to work there (Perry & Hondeghem, 2008). Nevertheless, the aspect of PSM refers to the desire to serve the public interest (Perry & Hondeghem, 2008). In addition, they mentioned that PSM is a sort of motivation in the public sector; however, it does not encompass all public sector motivations. In contrast to public sector motivation, PSM can be observed both inside and outside of the public sector (Steen, 2008, as cited in Steen & Rutgers, 2011).

Moreover, PSM refers to the factors that drive an individual to engage in some kind of public service in which the individual and public service goals are congruent (Zubair et al., 2018). In a broader sense, PSM can be seen as a preference for internal rewards over external ones (Crewson, 1997; Houston, 2000). For instance, a person’s sense of accomplishment after successfully completing a task is an example of an intrinsic reward (Houston, 2000). By contrast, extrinsic rewards are those provided by a third party to an employee (Houston, 2000). For instance, a pay boost, a promotion, job security, and increases in status and prestige are extrinsic benefits (Houston, 2000). Since PSM has significant consequences for the public sector, motivational tools that are often used in the private sector may not work as well in the public sector (Houston, 2006). As a result, the intrinsic rewards that drive public service employees may be “crowded out” by private sector reward structures, which are frequently based on the primacy of extrinsic incentives (Houston, 2006). Specifically, rewarding expected performance with money when the performance is intrinsically motivated may reduce the likelihood that intrinsic rewards would motivate future conduct (Crewson, 1997).

Houston (2011) described intrinsic motivation as consisting of two forms: One form is enjoyment-based intrinsic motivation, which relates to the satisfaction obtained by participating in a work task. The other form is obligation-based or prosocial intrinsic

motivation, which describes work that is meaningful because of “the obligations of personal and social identities” (Osterloh & Frey, 2000, p. 539).

Scholars frequently assume that all intrinsic motivations are relevant to PSM because the difference between intrinsic motivations based on enjoyment and obligation is not understood (Houston, 2011). By contrast, obligation-based intrinsic motivation is relevant to PSM (Houston, 2011).

Therefore, the idea of PSM originated from the idea that public organizations provide special incentives that appeal to people driven toward the common good compared with the private sector (Perry & Ritz, 2022).

The PSM disposition can be seen as a unique feeling of dedication to “public service values,” which might be supported by many sorts of organizations (Anderfuhren-Biget et al., 2014). PSM refers to a mix of motivations that, regardless of whether the individual is employed in the public sector, push a person to take social responsibility, overcome selfishness, and work toward the betterment of society (Wang et al., 2020).

Public officials are committed public employees who care about the community (Houston, 2006). They use the formal authority that comes with their positions to work in the public’s best interest (Houston, 2006). Therefore, when it comes to providing public services, public employees do not only “talk the talk” but also “walk the walk” (Houston, 2006).

Vandenabeele (2007, p. 547) attempted to bring together the numerous definitions by defining PSM as “the belief, values and attitudes that go beyond self-interest and organizational interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate” (Vandenabeele, 2007).

In addition, Perry and Hondeghem (2008, p.vii) defined PSM as “an individual’s orientation to delivering services to people with a purpose to do good for others and society,” which is a specific form of prosocial motivation (Potipiroon & Ford, 2017).

According to Vandenabeele et al. (2018), all of the definitions share some common ground: first, PSM is a desire to engage in public and political processes, and second, PSM is a desire to put aside one’s own interests in doing so. The main idea is that a public servant puts his or her own needs aside because he or she sees it as their responsibility to serve the public (Horton, 2018, p.18). In addition, the aforementioned definitions indicate that PSM is linked to other concepts, including intrinsic motivation, altruism motivation, and PROSM. Therefore, a naive

perspective on PSM could lead to confusion between these related concepts. In light of this, it is essential to differentiate PSM from other related concepts.

### **2.1.1 The three motives of PSM**

Perry and Wise's (1990) pioneering study was one of the most significant advances in PSM because they presented a conceptually clear definition of PSM and an instrument for measuring it from related concepts (Bright, 2011; Perry & Wise, 1990). According to Perry and Wise, people with high levels of PSM are drawn to jobs in public services for different reasons, including their own self-interest, a strong ethical attitude, and strong emotional attachments (Bright, 2011; Perry & Wise, 1990). Accordingly, they divided PSM into three basic motives to clarify why people chose public service, namely rational, norm-based, and affectionate motives, which are described as follows:

**Rational motives:** If a person chooses public service to maximize their personal benefits, this suggests rational motives (Perry & Wise, 1990). In addition, Brewer et al. (2000) explained that rational motives "are operative when individuals want to participate in the policy process, are committed to a public program because of personal identification with it and serve as advocates for a special or private interest" (Brewer et al., 2000). For example, someone lured to the public sector to participate in policymaking may be doing so to meet personal demands while also serving the public interest (Perry & Wise, 1990).

**Norm-based motives:** PSM is frequently related to specific normative attitudes, such as social justice and allegiance to duty and the government (Perry & Wise, 1990). A desire to serve the public interest is merely one of the values that comprise the PSM construct (Perry & Wise, 1990).

**Affectionate motives:** If an individual's commitment to a particular program or service is rooted in their emotion (e.g., the "patriotism of benevolence"), this suggests affectionate motives (Perry & Wise, 1990). That is, a person's commitment to a particular program may stem from a genuine belief in its social importance (Perry & Wise, 1990). In addition, within political borders, all individuals' fundamental rights should be safeguarded (Steen & Rutgers, 2011). By contrast, the emotional aspects of PSM have been mostly ignored.

### **2.1.2 Measures of PSM**

Now that PSM's conceptual definitions have been provided, it is crucial to emphasize its dimensions, which might make PSM more tangible.

Perry (1996) developed a scale to measure PSM (rational, normative, and affective). He defined PSM as an interest in public policy, commitment to the public interest (CPI) and civic duty, compassion (COM), social justice, and dedication (Perry, 1996). Anderfuhren-Biget et al. (2014) examined the effect of the policy environment of public employees on their level of PSM. They described how each of PSM's four perspectives uniquely drives public employees, depending on the policy area they work in and the stage of their policy cycle. In addition, these four aspects can be classified under one of the following: rational, normative, or affective (Anderfuhren-Biget et al., 2014; Mihalcioiu, 2011; Perry, 1996).

“Attraction to policymaking” is the first dimension of PSM, which is classified as rational motives (Mihalcioiu, 2011). Thus, employees who engage in the political arena to formulate policy display high levels of “attraction to policymaking” (Anderfuhren-Biget et al., 2014; Mihalcioiu, 2011). In addition, a person's perception of themselves as important might be bolstered by becoming involved in public policy formulation because the process can be thrilling and dramatic (Perry, 1996).

“Commitment to the public interest” (CPI) is the second dimension of PSM, which is classified as norm-based motives (Mihalcioiu, 2011; Perry, 1996). Thus, public employees' intentions for seeking the common good and serving the public interest are described by their CPI (Anderfuhren-Biget et al., 2014; Mihalcioiu, 2011).

“Compassion” (COM) is the third dimension of PSM, which is classified as affective motives (Mihalcioiu, 2011; Perry, 1996). COM is an extraordinary emotion characterized by sensitivity, empathy, understanding, and a desire to alleviate the suffering of others (Anderfuhren-Biget et al., 2014; Mihalcioiu, 2011).

Finally, “self-sacrifice” (SS) is the fourth dimension of PSM, which is classified as affective motives. Perry defined SS as the “willingness to substitute service to others for tangible personal rewards” (Anderfuhren-Biget et al., 2014; Perry, 1996, p. 6; Steen & Rutgers, 2011).

Since Perry's four dimensions for measuring PSM are increasingly being employed by scholars, doubts exist regarding their generalizability to other contexts (Kim et al., 2013). Therefore, based on the context, international scholars have offered different suggestions for completing, eliminating, or combining the developed dimensions in the United States (Kim et al., 2013). Kim et al. (2013) evaluated the different dimensions in 12 countries: COM and SS were retained, while the other two were rethought as a commitment to public values and an



attraction to public service (Kim et al., 2013). In addition, Giaque et al. suggested adding a new dimension called “Swiss democratic governance” (Giaque et al., 2011).

### **2.1.3 Process theory of PSM**

To investigate the relationship between the antecedents and outcomes of PSM, it is necessary to examine the process theory of PSM (Abdelmotaleb & Saha, 2018; Perry, 2000). Since OCB is a positive outcome of PSM and one of the main focuses of this study is the relationship between OCB and PSM, the authors focused on the process theory of PSM presented by Perry (2000).

Perry provided the four underlying assumptions regarding PSM (Camilleri, 2007; Perry, 2000):

First, he contended that one of the weaknesses of work motivation theory is its reliance on rational choice behavior, which ignores social norms and emotional responses to various social settings (Abdelmotaleb & Saha, 2018a; Perry, 2000). The rational choice motive does not accurately fit the circumstances commonly found in public sector, as the goals do not precisely determine in the public sector, and the attainment of goals is not linked to external benefits (Miao et al., 2019). As a result, rational, emotional, and social processes drive individuals (Camilleri, 2007; Perry, 2000).

Second, Perry contended that the driving force behind individuals is their self-concept; third, he suggested that the alternative theory of motivation should be based on endogenous preferences or values; and finally, he argued that social processes shape individuals' preferences and motivations.

Based on these assumptions, Perry created an alternative to rational choice theories that considers society and reflects institutional differences in the motivation process. He classified the vital factors that might impact PSM into the following four domains: sociohistorical context, motivational context, individual characteristics, and individual behavior (Abdelmotaleb & Saha, 2018; Camilleri, 2007; Perry, 2000).

Camilleri (2007) summarized Perry's definitions of these four domains as follows:

Sociohistorical context refers to the environmental factors that shape individual preferences and motivations. These factors include education, religion, and professional training. In addition, the events that have occurred in a person's life before and after work make up their sociohistorical context. Moreover, situational factors shape employees' behavior within the organization.

Motivational context refers to the situational factors that play a role in shaping employee behavior within the organization. These factors include organizational incentives, job characteristics, and work environment variables.

Individual characteristics are conceptualized as a collection of separate components. These components include the person's abilities and skills; their self-regulation, which refers to a person's ability to control him/herself through self-reaction, self-observation, judging, and self-monitoring; and their self-concept, which encompasses the person's identity as well as their values that create the motivation to react.

An individual's behavior could abide by either the logic of consequences or the logic of appropriateness, depending to the characteristics of the self-regulatory effect. The logic of consequences fits with the idea of rational choice, letting a person assess costs and benefits to maximize utility. Individuals may choose a specific activity, not because of the benefits or punishments but rather because it is the right thing to do.

## **2.2 Definition and Conceptualization of PROSM**

Motives were defined by Lewin (1951) as “goal-directed forces” and values as “drivers of motivational forces” that cause behavior or movement within the living space (Lewin, 1951, as cited in Batson et al., 2002). Therefore, studying the differences between ultimate goals, instrumental goals, and unintended consequences should help to understand motivation's importance rather than behavior (Batson et al., 2002).

According to Baston et al. (2002; 2008), ultimate goals mean the valued states that a person pursues to achieve (Batson et al., 2002, 2008). Here, the word “ultimate” does not indicate “cosmic” or “most important”; rather, it indicates the state or states that a person pursues at a particular point in time (Batson et al., 2002). Therefore, a person's ultimate goal characterizes a motivation; indeed, each motive has a particular goal that is prompted by a particular value (Batson et al., 2002).

In addition, Baston et al. described instrumental goals as “stepping-stones” to ultimate goals. Here, the term “stepping-stones” indicates that the instrumental goals will serve as alternative paths to reach ultimate goals when obstacles are encountered (Batson et al., 2002; Batson, 2010). Therefore, to differentiate between ultimate and instrumental goals, it is necessary to determine whether goals are pursued for their own sake or as a route to another aim (Batson et al., 2002). Moreover, pursuing instrumental or ultimate goals may lead to unintended negative or positive effects that are not goals themselves (Batson et al., 2002; Batson, 2010).

The motivation to make a “prosocial difference” is based on two psychological states, in which individuals pay attention to the outcome of their actions that affect others as well as care about making positive prosocial differences in others’ lives (Grant, 2007). Therefore, such motivation to make a social difference can also be identified as prosocial motivation. Indeed, assisting people in need, even lacking direct social or material benefits, defines a single psychological mechanism that leads to PROSM (Batson, 1989). Furthermore, Grant (2007) and Baston (1989) have demonstrated that connecting with people in need is essential because a prosocial personality is made up of traits such as “agreeableness,” “other-oriented empathy,” and “helpfulness,” which are always linked to a wide range of prosocial actions (Penner et al., 2005). Consequently, these traits when engaging with individuals in need can lead to PROSM. Therefore, according to Chaplin et al. (1988), traits and states are notions that people use to characterize and comprehend themselves and others (Chaplin et al., 1988). Moreover, Chaplin et al. demonstrated that traits and states play an essential role in predicting, explaining, and controlling social behavior by meeting people’s needs. They mentioned that a trait is caused internally and is stable in different situations and times because it reflects the person’s personality features. By contrast, a state is caused by external situational factors and is unstable in different situations and times (Chaplin et al., 1988).

Because of the distinction between traits and states, it is necessary to examine motivation at the three hierarchical levels.

Accordingly, Vallerand (1997) identified three hierarchical levels of generality that motivation acts on, namely global, contextual, and situational. First, he defined global-level motivation as a general tendency to engage with the environment in a manner that is either extrinsic, intrinsic, or amotivated. Thus, “global motivation” refers to individual distinctions in motivations that are mainly considered stable throughout time (Vallerand, 1997). In addition, it is essential to consider the individual’s motivation at the contextual level because, in contrast to global motivation, contextual motivation is more susceptible to change (Vallerand, 1997). Specifically, Vallerand explained that the motivational disposition of individuals might shift dramatically depending on the context in which they are behaving. Second, he defined contextual-level motivation as an individual’s typical motivation toward a particular setting. Lastly, he defined situational-level motivation as the motivation that individuals feel while actively participating in an activity (Vallerand, 1997). That is, it pertains to the present moment of motivation (Vallerand, 1997).

Finally, global motivation can be considered a trait-like term, whereas situational motivation corresponds to state-like terms (Chaplin et al., 1988; Grant & Berg, 2011).

Since PROSM is a specific form of intrinsic motivation (Deci & Ryan, 1985; Grant, 2008), it can also be divided into these three levels, like intrinsic motivation (Grant & Berg, 2011). Therefore, they created a model to comprehend prosocial motivation at work. According to Grant's definition, global prosocial motivation refers to an employee's disposition to defend and enhance the welfare of someone else in general (Bhaise, 2016; Grant & Berg, 2011). In addition, a desire to assist a specific group of people through a specific domain, career, or task is referred to as contextual prosocial motivation (Bhaise, 2016; Grant & Berg, 2011). For instance, in a teacher's motivation to teach students or a doctor's motivation to treat patients, students or patients appear as a specific group of people (Grant & Berg, 2011). Moreover, the desire to improve the well-being of a specific group of people in a particular circumstance illustrates situational prosocial motivation (Grant & Berg, 2011). In this definition, a particular circumstance is highlighted, which reflects the influential factors on motivation. For instance, a teacher's motivation to teach students in the 10th classroom in high school or a doctor's motivation to treat a patient in room 300, that students in the 10th classroom in high school or patient in room 300 refers to a particular circumstance (Grant & Berg, 2011).

In addition, Batson et al. (2002, 2008) identified four ultimate goals of acting in favor of others, namely "self-benefit (egoism)," "benefiting another individual (altruism)," "benefiting a group (collectivism)," and "upholding a moral principle (principlism)," which indicate four different types of prosocial motivation.

### **2.2.1 Self-benefit (egoism)**

Individuals' prosocial behaviors are motivated by self-interest (Batson, 1987; Batson et al., 2011). Individuals who aid others do it with the intention of gaining personal benefits. For instance, if people are supposed to be rewarded for their assistance, they will help for personal benefit, yet if they are not supposed to be rewarded, they will still help others because of self-rewards (Batson, 1987). Comte (1851) coined the term "egoism" for describing this type of PROSM, which is a pessimistic attitude toward helping others (Batson, 1987). Therefore, the authors defined egoism differently: Batson et al. (1981, p. 291) defined egoism as "egoistically motivated helping is directed toward the end state goal of increasing the helper's welfare."

A few decades later, Batson and Shaw (1991) provided a three-path model for facilitating a conceptual understanding of the numerous goals of helping, where the first two paths focused

on egoistic motivation. This model divides the first two paths into avoiding punishments, gaining rewards, and reducing aversive arousal. Realizing that others are in need is required for both paths, but for the first road, it is also essential to expect benefits for helping or/and punishment for not helping (Batson & Shaw, 1991). Consequently, in the first path, an individual anticipates rewards and punishments if they recognize the needs of others while simultaneously expecting to receive prizes or be subjected to penalties (Batson & Shaw, 1991). The rewards and punishment can be visible and explicit, such as cash rewards, praise, self-esteem, punishment, social castigation, personal guilt, or shame (Batson et al., 1981; Batson & Shaw, 1991). In the second path, realizing the needs of others elicits an internal response of aversive arousal, which can manifest as feelings of unease, worry, and distress (Batson & Shaw, 1991).

Moreover, acting in the interest of the common good can be based on several self-benefits, which can be the end-state goal (Batson et al., 2002). Thus, a helping act is egoistic when motivated by a desire for personal gain or to prevent personal suffering (Batson et al., 1981). Consequently, egoistically motivated behaviors that serve the public interest can occur if the behaviors are either instrumental to accomplishing the self-benefit as the ultimate goal or are unintentional consequences of accomplishing said goal. Thus, they highlighted that egoism is the most apparent reason for acting in the public interest.

Lee et al. (2019) defined egoism as “an egoistic motivation for giving help is elicited when a user believes that they can benefit from their helping behavior” (Lee et al., 2019, p. 182). According to Batson (2011), a form of egoism is defined as “helping because it is pleasurable to experience another’s joy when a need is met.” Specifically, if joy is the main ulterior motive, then egoism may motivate assisting behavior (Batson, 2011). Thus, these definitions refer to the first path of Batson and Shaw’s model discussed earlier.

On the other hand, helping others to reduce distress is defined as “a self-focused emotion evoked by perceiving the other as in need [...] likely to produce egoistic motivation to reduce one’s own distress” (Batson, 2011, as cited in Eisenberg et al., 2016). Following this definition, Eisenberg et al. (2016) argued that if a person does not have other options to relieve their own distress or to leave the situation, helping others can be perceived by the person as the easiest way to relieve one’s own distress (Eisenberg et al., 2016). Indeed, these definitions refer to the second path of Batson and Shaw’s model discussed earlier.

Consequently, each of the three types of egoistic motivation—anticipated reward, anticipated punishment, and unpleasant arousal—elicits its own unique response (Batson & Shaw, 1991). In addition, according to Batson and Shaw (1991), a person with these egoistic motives, before assisting, weighs the rewards against the cost. They also claimed that the benefit is the achievement of the objective. Thus, the strength of the motive depends on the magnitude of the benefit.

Psychological hedonism is also a form of egoism (Sober, 2013). It has two forms – namely strong and weak (Batson & Shaw, 1991). In the strong form of hedonism, the achievement of personal pleasure is always the aim, whereas in the weak form goal attainment always creates pleasure for the individual (Batson & Shaw, 1991). Therefore, the strong form alludes to egoism, while the weak form can also refer to altruism (Batson & Shaw, 1991).

According to hedonism, individuals' only ultimate goals are to experience pleasure and stay away from sorrow (Sober, 2013). Therefore, a concern with self-centered outcomes, such as personal profits, can be seen in hedonistic logic (Hao & Du, 2021). Consequently, hedonists make decisions based on what is most likely to make them feel good and prevent them from feeling bad (Sidgwick, 1922, as cited in Sober, 2013).

Egoism and altruism need to be considered together to achieve a deeper level of comprehension. Thus, altruism is discussed in the next subsection.

### **2.2.2 Benefiting another individual (altruism)**

Psychologists define altruism as “behavior carried out to benefit another without anticipation of rewards from external sources” (Macaulay & Berkowitz, 1970, p. 3). Indeed, this definition refers to altruism's motivational and behavioral perspectives (Rushton, 1982). For an enhanced understanding, this subsection separately examines the term “altruism” from the following two perspectives: (1) the behavioral perspective and (2) the motivational perspective. For the first perspective, behavioral outcomes such as the recipient's benefits and the helper's expenses are essential, while the second perspective emphasizes how and why the assisting behavior is established (Bar-Tal, 1986).

Altruism is examined from a behavioral perspective as follows: The term “helping” means an act performed to benefit others with no promise of external rewards (Bar-Tal, 1982). Therefore, all helping acts can be identified as altruistic acts. These acts can be performed for various reasons, including compensation, desire, debt, commitment, compliance, threat, and the anticipation of future rewards (Bar-Tal, 1982, 1986). In addition, the quality of helping actions

varies, which leads to the classification of the actions (Bar-Tal, 1982). The information provided reveals that an altruistic act is a helping act of high quality (Bar-Tal, 1982).

Therefore, altruism has been defined by authors differently: From Midlarsky's point of view, altruism is defined as "a subcategory of aiding, referring to helpful actions which incur some cost to the individual but bring either very little or nothing by way of gain, relative to the magnitude of the investment" (Midlarsky, 1968, p. 229). Sociobiologist Wilson defined altruism as "self-destructive behavior performed for the benefit of others" (Wilson, 1975, p.576). Rushton defined altruism as "social behavior carried out to achieve positive outcomes for another rather than for the self" (Rushton, 1980, p. 8). In addition, Bar-Tal defined an altruistic act as "voluntary and intentional behavior carried out for its own end to benefit a person, as a result of moral conviction in justice, and without expectations for external rewards" (Bar-Tal, 1982, p. 102).

Swap (1991) defined altruism from the point of view of a "naive observer" as

[b]ehavior intended to, and resulting in, benefit to a needy recipient unrelated to the actor; that does not intentionally benefit the actor or, especially, that involves some sacrifice by the actor; and that occurs outside of a normal helping, or despite a role that inhibits helping (Swap, 1991, p. 156).

Bar-Tal (1982, 1986) mentioned that almost all authors (e.g., Berkowitz, 1972; Leeds, 1963; Rushton, 1980) who have dealt with altruistic behavior have presented the following common features of altruism: First, the aid should be provided for the benefit of another; second, for a helping act to be regarded as altruistic, it must not be done with the intention of *quid pro quo*; rather, it must be done for the sake of the act itself; third, altruistic behavior should be conducted voluntarily and not in reaction to coercion or as a condition of compliance; fourth, to consider a behavior as altruistic, the received actions must be interpreted as good actions; and lastly, the act must not be motivated by the hope of receiving external rewards; instead, it can be motivated by internal rewards such as self-satisfaction or raised self-esteem.

In this subsection, the authors focus on the motivation underlying helping acts, since the provided definitions have ignored the motivation underlying helping acts. Therefore, altruism is examined from a motivational perspective as follows:

When the ultimate goal of assisting others is to improve their well-being, the second sort of prosocial drive emerges (Batson, 1987; Batson et al., 2011). Comte (1851) coined the term

“altruism” to describe this type of prosocial drive, which is a positive attitude toward helping others (Batson, 1987).

Karylowski (1982) introduced two types of altruistic motivation: endocentric and exocentric (Schwartz & Howard, 1984). Endocentric refers to the desire to adhere to one’s own norms and values and preserve or boost self-esteem, whereas exocentric refers to the direct concern for the well-being of others, which is derived from values such as COM and equality. Consequently, assistance driven through value affirmation can be exocentric or endocentric, and the distinction between them disappears if value affirmation is the basis of altruistic motivation (Schwartz & Howard, 1984). For example, COM is an exocentric value because it focuses on others, but at the same time, such values drive our actions because they are such a significant factor in self-evaluation (endocentric; Schwartz & Howard, 1984). Conversely, self-respect is an endocentric value because it focuses on self-standard, while such values support assisting others only if the person links the well-being of others to her/his own self-evaluation (exocentric; Schwartz & Howard, 1984).

As discussed earlier, according to Batson and Shaw’s (1991) three-path model, the third path focuses on altruistic motivation. On this path, understanding others in need based on either prior similar experiences or attachment would elicit a unique internal response, which includes empathy (Batson & Shaw, 1991). Therefore, they defined altruistic motivation based on empathy as “empathy evokes altruistic motivation directed toward the ultimate goal of reducing the needy persons suffering” (Batson & Shaw, 1991, p. 114).

In addition, according to Batson (2011, p. 11), altruistic motivation is founded on empathy, which is described as an “other-oriented emotion elicited by and congruent with the perceived welfare of someone in need.” Here, the word “congruent” refers to the valence of the emotion rather than its exact content (Batson, 2011). It is positive when the other’s welfare is judged to be positive and negative when it is judged to be negative (Batson, 2011; Batson et al., 2015). Pity, COM, tenderness, and sympathy are a few of the numerous names for other-oriented emotions (Batson et al., 2015). According to the empathy-altruism hypothesis, the strength of the altruistic motivation elicited by empathy directly depends on the strength of the empathic emotion (Batson & Shaw, 1991).

Due to their empathetic concern, people demonstrate various forms of prosocial action and motivation concerning blood relations and strangers (Maner & Gailliot, 2007). As a result, the link between helping and empathetic concern (as a presumed trigger of altruistic conduct) arises



more frequently in intimate and relative relationships than in the case of strangers (Maner & Gailliot, 2007). Therefore, this phenomenon is due to attachment based on love, feeling close, bonding, and caring toward close relationships (Batson & Shaw, 1991).

Consequently, empathy results in a selfless rather than egoistic drive to assist (Batson et al., 1981). Thus, altruism is the opposite of egoism.

### **2.2.3 Benefiting a group (collectivism)**

Both egoism and altruism are concerned with the well-being of individuals, while they are not the best motivators for meeting many communities' needs, such as the conditions of the homeless and the provision of public services, that do not directly benefit the people one cares about or oneself (Batson et al., 2002). These kinds of community needs are called social dilemmas, and they can be satisfied by enhancing the group's well-being as a whole (Batson et al., 2002).

When the ultimate goal is to improve a group's well-being as a whole, the third form of prosocial drive emerges (Batson et al., 2002, 2011). In this definition, a group can consist of two or millions of people who share a common characteristic, such as race, gender, and political party (Batson et al., 2002). Therefore, the group's well-being is the ultimate goal, not one's own well-being or the well-being of the individuals who benefit (Batson, 2010). As Dawes, van de Kragt, and Orbell put it – "Not me or thee but us" (Dawes et al., 1988, p. 83, as cited in Batson, 2010).

There are two different points of view regarding the motivation of collectivism based on group identity. Both points of view are explored in the following paragraphs:

Turner (1987) explained that group identity leads to collectivist motivation (Turner, 1987, as cited in Batson, 2010). Thus, they defined group identity as self-definition at the group level using the self-categorization theory (Turner, 1987, as cited in Batson, 1994). Specifically, an individual views themselves as a partner, a member of a team, or a European, for example (Batson, 1994). Consequently, this perspective indicates that collectivism may be a form of egoism for the benefit of the collective (Batson, 1994).

On the other hand, if someone cares about the well-being of a group, even if they do not see themselves as part of it, and that well-being is threatened or can be improved in some way, they may be led to collectivist motivation (Batson, 1994); here, membership of the group is not required for a person whose ultimate goal is to improve the group's welfare (Batson, 1994). For instance, a person who acts to improve the welfare of a racial or ethnic minority, the

homeless, or gays and lesbians does not belong to any of these groups (Batson, 1994). This perspective indicates that collectivism can be interpreted as a form of altruism for the benefit of the collective.

#### **2.2.4 Upholding a moral principle (principlism)**

Moral philosophers have rejected collectivist appeals because they believe them to be constrained to a collective (Batson, 1994). In addition, they have opposed the idea of altruism based on emotions like empathy, sympathy, and COM because they believe these feelings to be unstable (Batson, 1994).

Therefore, due to the changeable feelings of altruism and the limited scope of collectivism, philosophers defined the fourth form of prosocial motivation as principlism (Batson et al., 2002). The fourth form of prosocial drive emerges when the ultimate goal is to maintain universal and impartial moral principlism (Batson et al., 2002). For example, the utilitarian principle is the greatest good for the greatest number, which is one of the universal and impartial morals. It states that one should not prioritize one's own interests over the well-being of others (Mill, 1861, 1987, as cited in Batson, 1994). These principles can provide a reason to act for the common good that goes beyond self-interest and concern for the well-being of other individuals or groups (Batson et al., 2002). On the other hand, for Batson (1994), it was a question of whether acting only to maintain a moral value is conceivable.

On the one hand, Eisenberg (2022) concurred that occasionally people might help others merely to uphold a concept. On the other hand, he claimed that the content of a principle is not always distinguishable from the motivation of altruism or collectivism. As he explained, upholding principles and enhancing the well-being of individuals and groups are inextricably linked by universally held principles that elicit empathy and altruistic motives (Eisenberg, 2022).

In addition, according to Hoffman (1990), care and responsibility for others and distributive justice are two of the most critical moral principles in Western society, and both are linked to empathy. Moreover, when considering how society's resources should be dispersed, an individual may choose to concentrate on the benefits for him/herself or others (Hoffman, 1990). If someone is motivated by their own self-benefit, they may choose justice principles that match their situation, while if they are motivated by another's benefit, they may choose justice principles that match the other's situation (Hoffman, 1990).

Therefore, it is possible that upholding moral principles may merely be an instrumental objective undertaken to obtain the social and self-rewards based on being moral – or at least not immoral. Under this condition, principle-based motivation becomes egoism and altruism (Batson, 2010; Batson et al., 2002, 2011).

### **2.3 Definition and Conceptualization of OCB**

Barnard conducted the first study about organizations' formal and informal forms (Barnard, 1938; Khan et al., 2017). Two forms of structure exist in organizations – the informal form completes the formal form of organizations (Barnard, 1938; Blau & Scott, 1962; Shafritz et al., 2015). Considering the informal form of organizations is essential for understanding the formal form (Barnard, 1938; Blau & Scott, 1962; Shafritz et al., 2015). Barnard (1938) named the informal form “extra-role behaviors” and the formal form “in-role behaviors.” The formal form of organization refers to the official rules in organizations, while the members of the organizations develop their values, norms, and social relationships while working together (Blau & Scott, 1962; Khan et al., 2017; Shafritz et al., 2015). Thus, these developments refer to the informal form of organization. Therefore, an organization's planning is not able to account for every contingency that may arise inside its operations, predict with complete precision every change in the surrounding environment, or precisely control every variable that may arise from human behavior (Katz, 1964). Katz (1964) claimed that there are many instances of cooperation inside every work group in organizations, without which the system would collapse. Thus, the unofficial values advance the regulated performance and efficiency (Blau & Scott, 1962; Shafritz et al., 2015).

Since people's abilities to devise new ideas, act in ways that are both protective and creative, and work together spontaneously are essential to the survival of an organization; thus, it should be possible to provide a sufficient number of innovative or somewhat spontaneous actions in an organization (Katz, 1964). As a result, a social system that is entirely dependent on its blueprints of mandated behavior is a very weak one (Katz, 1964).

The unofficial norms are now known as OCB. Smith et al. and Organ (1983; 1988) were the first to explicitly expand OCBs. According to Smith et al. (1983), there are two types of OCB, namely altruism and generalized compliance. These two dimensions indicate different aspects of OCB (C. Smith et al., 1983).

Later in 1988, Organ defined OCB as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the

effective functioning of the organization” (Organ, 1988, p. 4). This definition refers to the following three essential features of OCB: (1) This behavior is a voluntary behavior, which is not defined in the job description; (2) there is no reward or punishment in doing or not doing these behaviors; and (3) these behaviors lead to an effective upgrade of the organization’s performance in reaching its goals (Organ, 1988). In addition, Organ developed a variety of OCBs into five types, namely altruism, conscientiousness, civic virtue, courtesy, and sportsmanship.

Williams and Anderson (1991) provided two directions of OCB – stating that OCB should be examined in terms of how it affects people (OCB-I) and how it affects the organization (OCB-O). OCB-O behaviors are beneficial to the organization in general, such as helping absent coworkers, paying attention to coworkers, while OCB-I behaviors are directly beneficial to specific individuals and improve the organization indirectly, such as notifying one’s boss while absent and following informal rules to maintain order (Williams & Anderson, 1991).

Organ (1997, p.91) redefined OCB as “contributions to the maintenance and enhancement of the social and psychological context that supports task performance,” which indicated that the likelihood of OCB being regarded as an obligatory job requirement is lower (Organ, 1997). In addition, it indicated a lower probability that the performer would view OCB as a path that can yield rewards (Organ, 1997). As a result, he highlighted that OCB is indeed distinguished from task performance.

Moreover, Organ (1997) defined OCB from an operational point of view as follows: “[S]upervisors like for you to do, even though they cannot make you do it and cannot guarantee any reward for it beyond their appreciation and perhaps an occasional extra kindness or two” (Organ, 1997, p. 93).

Podsakoff et al. (2000) identified approximately 30 distinct patterns of citizenship behavior that overlap in terms of concepts. These patterns are categorized into the following seven common dimensions: Helping Behavior, Organizational Compliance, Individual Initiative, Organizational Loyalty, Civic Virtue, Sportsmanship, and Self Development (Podsakoff et al., 2000). The next section provides an overview of these dimensions.

### **2.3.1 Dimension of OCB**

The commonly recognized dimensions of OCB are described in the following paragraphs:

#### **Altruism**

The first dimension of OCB is altruism. As the authors addressed altruistic motivation in general in the previous section, they only address altruistic behavior in the workplace here. Organ et al. (1983) defined it as an individual's tendency to demonstrate helpful behaviors toward specific people and groups when prompted by a situation (C. Smith et al., 1983). Later, Organ (1988) defined altruism as a voluntary act of assisting other coworkers in completing duties and fixing work-related challenges (Organ, 1988 as cited in Romaiha et al., 2019). In addition, Podsakoff et al. (2000) defined helping behavior as a measure for avoiding difficulties that occur at work.

The work system is made more efficient when an employee uses his or her spare time to assist another employee with a more pressing duty (Yen & Niehoff, 2004). Yen and Niehoff (2004) believed that this kind of help can be offered out of a sense of altruism or just because aiding another is the right thing to do. Moreover, altruism encompasses offering assistance to coworkers who are overburdened with work and/or orienting new employees to the job's duties (Chahal & Mehta, 2010; Tambe, 2014). Indeed, this help is voluntary or offered even when not directly requested (Chahal & Mehta, 2010; Yadav & Punia, 2013).

#### **Sportsmanship**

The second dimension is sportsmanship, which Organ defined as "a willingness to tolerate the inevitable inconveniences and impositions of work without complaining" (Organ, 1990, p. 96). In addition, sportsmanship is defined as "[t]olerating any negative thing" (Ehtiyar et al., 2010, p. 51). Therefore, the term "sportsmanship" refers to a set of behaviors, the most important of which are the desire to make personal sacrifices for the sake of one's team and the ability to inspire and encourage one's teammates in the face of adversity (Veličkovska, 2017). In addition, it involves not having any issues with the team shooting down individual ideas (Veličkovska, 2017). Being optimistic and tolerant in the face of problems encountered in the workplace is an integral part of sportsmanship (Tambe, 2014). This means not making unwarranted complaints about the challenges encountered there. Therefore, the ability to moderate the environment and identify solutions is a sign of valor in practically every organization when problems exist (Ehtiyar et al., 2010). A "good sport" is a person who does not grumble when things do not go his/her way, is not upset when others do not follow her/his

advice, is prepared to sacrifice her/his own interests for the greater good of the team, and does not pursue her/his own ideas personally (Podsakoff et al., 2000). Accordingly, respecting what other people want and need is an act of courtesy that stops problems from occurring (Yadav & Punia, 2013).

### **Civic virtue**

Civic virtue is the third dimension of OCB, and it is demonstrated when an individual not only endorses but also supports the policies of an organization and actively participates in its operations (Organ, 1988 as cited in Romaiha et al., 2019). It denotes dedication to interest in the organization at a macro level (Ehtiyar et al., 2010; Tambe, 2014) and the ability to act responsibly (Hermawan et al., 2020). Thus, civic virtue refers to connecting an individual to an organization and safeguarding its interests in every context (Veličkovska, 2017). Constructive engagement in the organization's political process is possible through participating in meetings, exchanging ideas with colleagues, and reading internal communications (e.g., emails; Tambe, 2014). Employees will behave with civic virtue when they believe that their company has met or exceeded its commitments, and they will refrain from acting civically when they believe that those obligations have not been met sufficiently or have been broken (Robinson & Morrison, 1995). Therefore, employer–employee obligations are essential for demonstrating civic virtue (Robinson & Morrison, 1995).

### **Conscientiousness**

The fourth dimension is conscientiousness, which Tambe (2014, p.69) defined as “a prototype of going well beyond minimally required levels of attendance, punctuality, and housekeeping, penchant towards conserving resources, and overall giving an impression of being a responsible citizen of the organization.” In addition, Organ (1988) defined it as “[t]he care of employees towards the rules and regulations of the organization for the genuine benefit of the organization” (Organ, 1988 as cited in Khan et al., 2017). Therefore, a conscientious person goes voluntarily beyond the minimum requirements of their position, such as answering phone calls from the home office promptly and never deviating from the regulations (MacKenzie et al., 1993). Furthermore, a conscientious person acts correctly for their own sake instead of acting for the benefit of a particular individual (Jahangir et al., 2004). Therefore, the actions of members in an organization go beyond mandatory minimum requirements (Jahangir et al., 2004). Obeying rules, taking breaks at the appropriate times, being punctual, and other similar

behaviors all demonstrate conscientiousness (Chahal & Mehta, 2010), and also suggest that employees embrace and follow company policies (Emami et al., 2012).

### **Courtesy**

Courtesy, the fifth dimension, refers to individuals' voluntary actions for avoiding work-related conflicts with others (Chahal & Mehta, 2010). Organ (1988) defined courtesy as the “[p]olite behavior of employees enabling them to avoid conflicts and interpersonal work-related problems” (Organ, 1988 as cited in Khan et al., 2017).

In addition, courteous workers warn others about changes that could directly or indirectly influence their work, thereby preparing other workers for change-related issues that they might have to deal with in the future (Romainha et al., 2019; Shanker, 2014). Then, employees should avoid engaging in activities that make others' jobs more complicated, and if an employee must add to another's workload, he/she should provide them with an adequate warning so that they can make adequate preparations (Organ et al., 2005).

### **Organizational loyalty**

The sixth dimension is loyalty, which Graham (1991) defined as having a strong sense of belonging to an organization and identifying with the organization's leaders and its mission as a whole, going beyond the interests of a particular group or department. Organizational loyalty is a term that describes representative behaviors, including defending the organization against possible risks, contributing to its positive reputation, and working with others to promote the interests of the whole (Graham, 1991). Therefore, when employees of a company “talk up” their company with people who may be interested in working there in the future, they deflect negative comments made by members of the public and emphasize positive aspects (Organ et al., 2005). Fundamentally, organizational loyalty means promoting the organization to outsiders, safeguarding and defending it from external risks, and being committed to the organization despite difficult circumstances (Podsakoff et al., 2000).

### **Self-development**

Another dimension of behavior beyond the call of obligation is when employees train themselves to do their jobs better and educate themselves to take on more responsibility (Katz, 1964). Organ et al. (2005) defined “self-development” as the voluntary actions that people take to increase their knowledge and abilities in areas critical to their work. These actions might include formal studies, such as company-sponsored training courses, and also informal studies (Organ et al., 2005). Regardless of the development activity, it stands out because it goes above

and beyond what is expected and could help the organization (George & Brief, 1992). For instance, if good managers are lacking in the organization, a worker who takes a training course at her own cost has prepared for a promotion to a management position, which benefits the organization (George & Brief, 1992). Thus, self-development refers to fostering one's own growth and development (Veličkovska, 2017)

### **Individual initiative**

Individual initiative is another form of OCB. It is an extra role solely in the sense that it entails participating in task-related activities to an extent that goes far beyond what is minimally required or the usually expected levels, such that it takes on the character of a voluntary act (Podsakoff et al., 2000; Veličkovska, 2017). These behaviors consist of voluntarily engaging in creative and innovative activities to enhance one's own performance or that of the organization (Podsakoff et al., 2000). Examples are persevering in completing one's work, being willing to take on additional tasks, and motivating others in the organization (Podsakoff et al., 2000). According to Organ (1988), this type of conduct is one of the most difficult to differentiate from in-role behavior since the two are more related to a degree than they are too kind (Organ, 1988 as cited in Podsakoff et al., 2000). For this reason, various researchers have omitted this dimension from their investigations of OCB (Podsakoff et al., 2000; Veličkovska, 2017).

### **Compliance**

Generalized compliance as another OCB dimension. It means doing the right thing due to "the impersonal sort of conscientiousness," which is more in the system's interest than that of a particular group (C. Smith et al., 1983). It is more of a "good soldier" or "good citizen" mentality, where individuals perform actions that are "right and proper" (C. Smith et al., 1983).

In addition, this dimension describes a person's internalization and adoption of the applicable regulations, rules, and protocols, resulting in obedience even when no one sees or monitors compliance (Podsakoff et al., 2000; Veličkovska, 2017). Unfortunately, most workers do not adhere to the rules, regulations, and procedures, despite everyone being obligated to do so (Podsakoff et al., 2000).

Therefore, people vary in their propensity to contribute to the "cooperative system," which cannot be described by individual disparities in ability (Thiruvankadam & Durairaj, 2017).



According to the reviewed literature, motivation, job satisfaction (JS), organizational commitment, individual disposition, fairness perceptions, role perception, and leadership are all critical antecedents of OCB (e.g., Bismala, 2019; Jahangir et al., 2004; Lok et al., 2007).

### **2.3.2 Antecedents of OCB**

Since OCBs impact organizational performance, it is vital to investigate the factors that contribute to these behaviors' rise in organizational contexts (Osman et al., 2019; Podsakoff et al., 2009). Therefore, this section provides an overview of factors that have been identified as antecedents to OCBs, of which there are four major categories: organizational characteristics, task characteristics, leadership behaviors, and employee characteristics.

#### **Organizational characteristics**

No significant relationship exists between organizational characteristics – which include organizational formalization, organizational inflexibility, advisory support, staff support, and the spatial distance between employers and employees – and OCBs (Podsakoff et al., 2000). By contrast, a significant relationship exists between other organizational characteristics and OCB, including perceived organizational support (POS) and group cohesiveness. Therefore, Podsakoff et al. discovered that POS was significantly correlated with altruism and that group cohesion was positively associated with OCB's dimensions, including altruism, courtesy, conscientiousness, sportsmanship, and civic virtue (Podsakoff et al., 2000).

#### **Task characteristics**

A significant relationship exists between task characteristics – including routinization, feedback, and intrinsic satisfaction – and OCB dimensions such as altruism, sportsmanship, conscientiousness, courtesy, and civic virtue (Emami et al., 2012; Podsakoff et al., 2000). Therefore, task routinization negatively affects OCB, while intrinsic satisfaction and feedback on tasks positively affect OCB (Emami et al., 2012; Podsakoff et al., 2000).

#### **Leadership behaviors**

Leadership seems to substantially impact an employee's OCB participation (Chahal & Mehta, 2010; Jahangir et al., 2004). Leadership behaviors are classified into the following four types: transactional leadership behavior, transformational leadership behavior, behaviors that concern the path-goal theory of leadership, and behaviors that concern leader–member exchange theory (Emami et al., 2012; Podsakoff et al., 2000).

Two behaviors exemplify the transactional leadership style, namely contingent reward behavior and noncontingent punishment (Emami et al., 2012; Podsakoff et al., 2000). Moreover, these behaviors respectively have positive and negative correlations with dimensions of OCB (Emami et al., 2012; Podsakoff et al., 2000).

In addition, significant positive associations exist between transformational leadership behaviors and OCB's dimensions, such as altruism, courtesy, conscientiousness, civic virtue, and sportsmanship (Emami et al., 2012; Podsakoff et al., 2000). Therefore, transformational leadership behaviors such as presenting a vision and an acceptable model to employees, promoting the acceptance of collective goals, while simultaneously providing intellectual stimulation and high performance expectations, improve and change employees' behaviors (Emami et al., 2012; Podsakoff et al., 2000). Therefore, transformational leadership behaviors create an excellent organizational climate, leading to individual change-oriented OCB behaviors in the organization (Kao, 2017; Osman et al., 2019). Kao (2017) stated that these behaviors significantly positively influence the organizational climate.

Moreover, the path-goal theory of leadership includes supportive leadership and leader role clarification features, which are also positively linked to OCB (Emami et al., 2012; Podsakoff et al., 2000). Leadership supportiveness leads to employees' JS, indirectly improving OCB's altruism dimension (C. Smith et al., 1983).

By contrast, leadership supportiveness directly affects generalized compliance (Smith et al., 1983).

Finally, leader-member exchange has been positively associated with altruism and an overall composite measure of OCB (Emami et al., 2012; Jahangir et al., 2004; Podsakoff et al., 2000).

### **Employee characteristics**

Employee characteristics have been examined by studies from two aspects. First, numerous dispositional traits related to the workplace, such as conscientiousness, agreeableness, and positive and negative affectivity, incline people toward specific orientations to coworkers and supervisors in the workplace (Chahal & Mehta, 2010; Organ & Ryan, 1995; Podsakoff et al., 2000). Therefore, these factors play a significant role in determining OCBs. For instance, conscientiousness and agreeableness are highly correlated with altruism and generalized compliance, while positive affectivity is highly correlated with altruism (Organ & Ryan, 1995; Podsakoff et al., 2000).

Second, the factors that form employees' morale, such as perceptions of fairness, employee satisfaction, organizational commitment, and perceptions of leader supportiveness, play a significant role in determining OCBs (Organ & Ryan, 1995; Podsakoff et al., 2000). For instance, the reaction of an employee to their work and the environment in which they perform it is known as JS (Lee et al., 2013). This response is generated when an employee's needs are met in their place of employment (Lee et al., 2013). As employees who are satisfied with their jobs are more likely to participate in OCB, they are less likely to look for other work (Yadav & Punia, 2013). According to Mohammad et al. (2011), JS consists of intrinsic and extrinsic factors, both of which are positively related to OCB (Mohammad et al., 2011; Yadav & Punia, 2013). Therefore, intrinsic and extrinsic factors should be highlighted to motivate employees to be more flexible and eager to attain organizational objectives even if they go beyond their formal duties and obligations (Mohammad et al., 2011).

### **Role perceptions**

Role ambiguity and role conflict are both significantly negatively connected to OCB's dimensions, such as altruism, courtesy, and sportsmanship, while role facilitation and role clarity are both significantly positively connected (Chahal & Mehta, 2010; Podsakoff et al., 2000).

**Fairness perceptions:** According to Cropanzano (1993), the fairness and moral treatment of employees within an organization is known as organizational justice (Cropanzano, 1993, as cited in Davoud et al., 2012). Fairness perceptions are divided into procedural justice and distributive justice. If employees believe that organizational decisions are made not with bias but equitably, this is referred to as procedural justice (Chahal & Mehta, 2010; Jahangir et al., 2004). Therefore, "procedural justice" describes employees' perceptions of the impartiality of organizational decision-making (Chahal & Mehta, 2010; Jahangir et al., 2004).

By contrast, the term "distributive justice" describes an organization's practice of compensating its employees fairly, considering factors like experience, educational level, and their amount of labor (Chahal & Mehta, 2010; Jahangir et al., 2004). Chahal and Mehta (2010) emphasized that both procedural and distributive justice positively affect OCB. However, a study determined that procedural justice has a more significant impact on OCB than distributive justice (Lee et al., 2013). Therefore, fairness perception and OCB have a significant positive relationship (Davoud et al., 2012).

### 3 Materials and Methods

This section covers the planning, implementation, and reporting of the research questions. Since the 1990s, the SLR has been a popular research methodology in health care (Babar & Zhang, 2009), and it has also become increasingly important in other disciplines.

An SLR is a method for discovering, analyzing, and interpreting all available research pertinent to a specific research question and topic area (Keele, 2007). Thus, an SLR is a qualitative research method that allows the researcher to combine research comprehensively, reproducibly, transparently, and systematically (Parris & Peachey, 2013). To make the search replicable by other researchers, the search strategy should also be thoroughly documented (Cheung & Vijayakumar, 2016). The phrase “replicable by other researchers” means that when other researchers use the same search strategy, they should achieve the same output.

Thus, primary studies are the individual studies that contribute to an SLR, while an SLR is a type of secondary study (Keele, 2007).

Higgins et al. (2019, p. xxiii) defined the key characteristics of an SLR as follows:

- “[A] clearly stated set of objectives with predefined eligibility criteria for studies;
- An explicit, reproducible methodology;
- A systematic search that attempts to identify all studies that would meet the eligibility criteria;
- An assessment of the validity of the findings of the included studies, such as through the assessment of risk of bias; and
- A systematic presentation and synthesis of the characteristics and findings of the included studies.”

In addition, Babar and Zhang (2009) defined the following main reasons for conducting an SLR: to present an overview of the evidence already available around a specific topic; to seek to reduce bias in ad-hoc literature surveys; to provide a background and framework for future research; and to identify gaps in studies around a specific topic that will help to identify any potential new possibility for future research (Babar & Zhang, 2009).

Therefore, derived from the study of Babar and Zhang (2009), the present authors conducted this SLR for four reasons. The first reason was to present an overview of the evidence already available on the relationship between PSM and /or PROSM with OCB in the public sector. The second reason was to provide a background and framework for future interested researchers in

the field of public policy and administration. The third reason was to identify gaps in studies about the relationship between PSM and /or PROSM with OCB in the public sector, which should help to identify any potential new possibility for future research. The fourth and final reason was that no SLR had been conducted to explore the relationship between PSM, PROSM, and civil servants' OCB.

An SLR is divided into three main steps: planning, implementation, and reporting (Keele, 2007). These steps of the present study are respectively described in the following sections.

### **3.1 Planning**

Confirming the need for an SLR is an essential step before beginning the review process (Keele, 2007). Such a need is driven by the necessity for researchers to thoroughly and objectively summarize all available information regarding a particular issue (Keele, 2007). According to the growing number of studies examining the relationships between PSM and/or PROSM with OCB in the public sector, it is necessary to synthesize the findings to provide a comprehensive picture of the subject and avoid wasting time. Therefore, an SLR is an appropriate tool in these circumstances. In this study, the authors conducted an SLR under the following heading: "Exploring the Relationship between Public Service Motivation, Prosocial Motivation, and Civil Servants' Organizational Citizenship Behavior."

The whole SLR method is based on review questions (Keele, 2007). Thus, formulating clear research questions is critical. The authors formulated the following research questions:

- What is the relationship between PSM and OCB?
- What is the relationship between PROSM and OCB?
- What is the relationship between PSM, PROSM, and OCB?

Dempster (2011, p. 15) defined an SLR as

"a comprehensive review of literature which differs from a traditional literature review in that it is conducted in a methodical (or systematic) manner, according to a pre-specified protocol to minimise bias, with the aim of synthesising the retrieved information" (Dempster, 2011).

As Dempster's definition highlights, a pre-established protocol is required to minimize the likelihood of researcher bias in SLRs. Therefore, a review protocol describes the steps to be followed to conduct a given SLR (Keele, 2007). The PRISMA guidelines were used to guide

the present SLR, especially for the research questions, identification of journals, search strategy and databases, inclusion and exclusion criteria, data collection instruments and methods, and criteria for analyzing the findings (Moher et al., 2010).

### **3.2 Implementation**

It is essential to establish and implement a search strategy. An SLR uses an unbiased search strategy to identify as many primary studies as are pertinent to the research topic. Keywords, journals, subject headers, titles, abstracts, phrases, and Boolean searches were all considered in this study. The authors proceeded as follows:

First, they generated a list of synonyms, abbreviations, and alternative spellings by examining subject headers in journals, keywords, titles, and abstracts of other studies.

Second, they used Boolean ANDs and ORs to create sophisticated search phrases. Considering Appendix 1., the keywords from columns 1 OR 2 were combined with column 3 as well as all three columns (1, 2, AND 3) together by Boolean ANDs to create the essential sophisticated search phrases.

Examples are provided as follows:

- Combining columns 1 with column 3: “public service motivation AND organizational citizenship behavior”;
- Combining column 2 with column 3: “egoism AND organizational citizenship behavior” OR “self-oriented AND organizational citizenship behavior”;
- Combining columns 1, 2, and 3: “public service motivation AND Altruism AND organizational citizenship behavior”.

Third, the authors developed the phrases made in the second step by combining column 3 with terms from column 4, such as “Egoism AND Civil Servants’ organizational citizenship behavior” OR “Egoism AND public managements’ organizational citizenship behavior.”

In addition, the authors used the abbreviations OCB and PSM (“organizational citizenship behavior” and “public service motivation,” respectively) in the search phrases. Since the term PROSM is sometimes written with and sometimes without a hyphen, the authors used both forms in the search phrases (i.e., “prosocial motivation” and “pro-social motivation”).

As a result, searches were conducted with a variety of combinations of search phrases derived from the research questions. Thus, the final employed keywords for the present study are listed in Appendix 3.

Since Cheung and Vijayakumar (2016) recommended using multiple databases to reduce selection bias, the articles for this study were gathered from two different sources. The first was the Web of Science database, which is the largest and most relevant online database to the study subject. The second was the top 15 public policy and administration journals<sup>1</sup>(snowballing approach).

Selection criteria should be determined during the protocol definition phase to limit the likelihood of bias, although they may be redefined during the search phase (Keele, 2007). Thus, the next section addresses the inclusion and exclusion criteria.

### **3.2.1 Inclusion/exclusion criteria**

To select the primary research studies that offer direct evidence for the research questions, study selection criteria must be used. The authors started by determining the time frame of the review. Perry and Wise (1990) first defined PSM formally in 1990, Batson first defined PROSM in 1987, and Bernard first defined OCB in 1938. Since the researchers' intention was to find all literature that has addressed the relationship between PSM and/or PROSM with OCB, they determined 1990 as the start date for the article search. However, articles published up until the current calendar year (2022) were chosen for inclusion. Therefore, this study covered the time period through September (Sep.) 2022. Second, the authors determined the type of literature that they would include in the review. They decided to include only articles that have been published and easily achieved peer review to maintain quality standards (Rothstein & Hopewell, 2009; Ritz et al., 2016). Chapters of books, conference papers, and unpublished literature (gray literature) were excluded, despite the fact that excluding gray literature can lead to selection bias through publication bias. Publishing studies with statistically nonsignificant or null findings is a challenge and can lead to publication bias (Hopewell et al., 2005).

Third, the authors addressed the language of the articles. Hopewell et al. (2005) mentioned that studies with statistically significant findings are more likely to be published in English. Therefore, only English articles were included in the study and non-English articles were excluded.

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<sup>1</sup> This list is accessible via the following link.:  
[https://scholar.google.com/citations?view\\_op=top\\_venues&hl=en&vq=soc\\_publicpolicyadministration](https://scholar.google.com/citations?view_op=top_venues&hl=en&vq=soc_publicpolicyadministration)

Finally, the sector was crucial to this study. Since Perry and Wise (1990) defined PSM as a person's tendency to respond to incentives rooted mostly or exclusively in public institutions and organizations, the authors limited the study to the public sector, meaning that the private sector was excluded.

Table 1 lists the inclusion and exclusion criteria:

Table 1: Inclusion and exclusion criteria

<b>Criteria</b>	<b>Inclusion</b>	<b>Exclusion</b>
<b>Literature Type</b>	Peer-reviewed article	Book chapter, gray literature
<b>Language</b>	English	Non-English
<b>Timeline</b>	1990 – 30 Sep. 2022	After Sep. 2022
<b>Sector</b>	Public sector	Private sector
<b>Literature Intention</b>	Relationship between PSM and/or PROSM with OCB	No relationship between PSM and/or PROSM with OCB

### 3.2.2 Study search process

The search strategy combined three topical clusters, such as two different types of motivation, organizational discretionary behavior, and public administration, with each other. To find relevant studies for the first, second, and third research questions, the following steps were taken (see Appendix 3. and Figure 2.):

First, the results of the PSM search yielded 172,446 studies, and second, the results of the OCB search yielded 490,269 studies. A total of 2,259 studies were produced as a result of the intersection of these two clusters, which were connected to both motivation and behavior. Third, keywords that were specific to the public sector resulted in 72,524 items. According to the confluence of the clusters of PSM, OCB, and public administration, a total of 499 studies were obtained.



Fourth, the PROSM search obtained 31,515 results. As a result of the confluence of the clusters of PROSM and OCB, a total of 19,399 studies were obtained. According to the confluence of the clusters of PROSM, OCB, and public administration, a total of 133 studies were obtained.

Fifth, the results of the PROSM and PSM search yielded 751 studies. When two different types of motivation (PSM, or PROSM) and OCB came together, a total of 528 studies were obtained.

A total of 64 studies were obtained based on the intersection of the clusters of PROSM, PSM, OCB, and public administration. Therefore, the initial set contained a total of 696 studies on PROSM, PSM, OCB, and public administration.

Next, the authors applied language, publication years, and document type filters to the intersection of the clusters. After applying a filter to the intersection of the distinct motivations, discretionary behavior, and public administration clusters, the total number of studies was reduced from 499 to 396, from 133 to 123, and from 64 to 60. To avoid duplicating efforts, the authors merged all of the studies they had chosen to use in the next step. After the papers were merged, 458 studies were exported from the Web of Science platform to Excel. The next section addresses the selection process from the exported study.

### **3.2.3 Study selection process**

Choosing a study is a process with several steps (Keele, 2007). In the first step, the first author investigated the titles and abstracts of the papers based on a screening diagram (see Appendix 2.) and then selected the studies that not only met the inclusion requirements but also contained the keywords and keyword abbreviations of this study. That is, OCB as a fixed element combined with PSM or PROSM (or both) was required to be present in the titles and abstracts of the studies. Here it is important to mention that the authors of the present study considered both extra-role behavior and OCB to be same unless the studies reviewed distinguished between them.

In addition, following the first author, the second author investigated the abstracts and titles (Lamé, 2019). After first screening the titles and abstracts of 458 papers, 408 were eliminated; finally, 50 articles were selected for a full screening based on their potential relevance to the study's principal topic. In the second step, the two authors reviewed the full texts of the articles that were included. Then, articles irrelevant to the study question were excluded. After a thorough content analysis and topic screening to ensure that each article fully met the inclusion criteria, a total of 29 studies were included in the SLR.

In light of Hoon's suggested procedures (2013), any inconsistencies that arise throughout the process of coding should be meticulously documented on the coding form, and then resolved through talks and additional rereading of the original studies (Hoon, 2013; Linneberg & Korsgaard, 2019). This is done to guarantee that the reviewers were consistent with one another (Hoon, 2013; Linneberg & Korsgaard, 2019). Therefore, since the initial and second screening was performed separately by two authors, the articles included by the two authors in every step were compared with each other. Then, any disagreements between the authors were resolved through consensus. As a result, the researchers reviewed studies critically in both stages to distinguish and select relevant studies that could ultimately answer clearly formulated research questions (Moher et al., 2009).

The following PRISMA diagram in Figure 2 documents the results of the screening process (Moher et al., 2009):

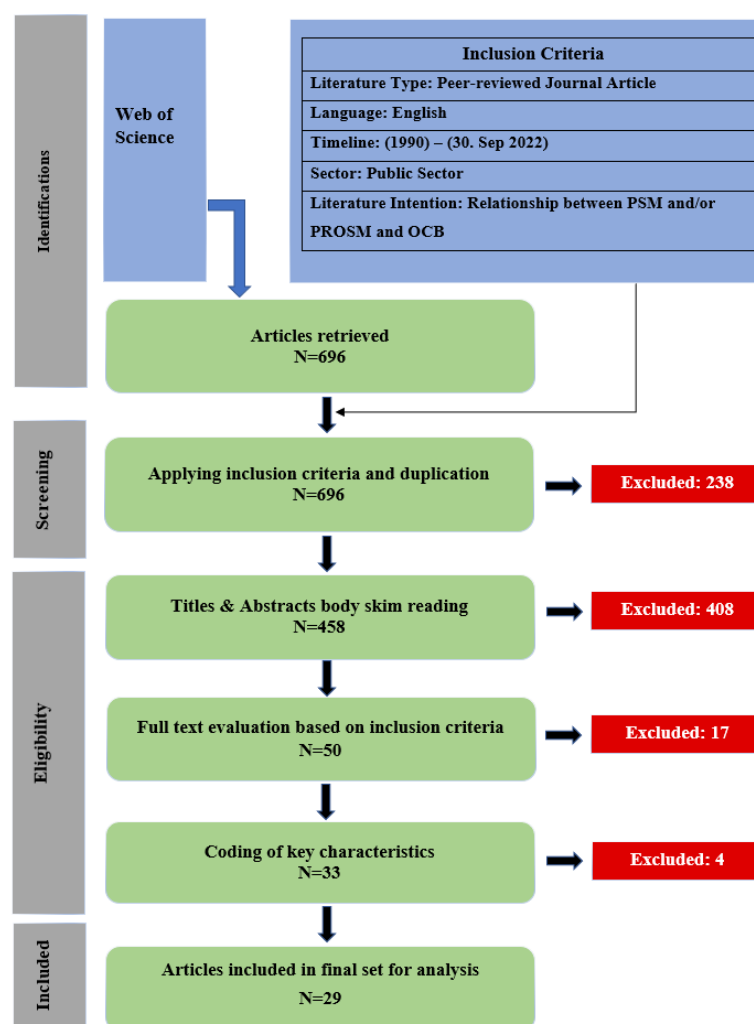


Figure 2: PRISMA diagram

### 3.2.4 Coding

The authors adopted a combined inductive and deductive coding approach, which is known as a blended approach (Linneberg & Korsgaard, 2019). In this method, the inclusion of structural and theoretically relevant factors is guaranteed from the very beginning through deductive coding, while an inductive examination of the deductive codes can be performed later in the process (Linneberg & Korsgaard, 2019).

Therefore, switching from a deductive to an inductive coding procedure brings one closer to the data, but at the cost of losing theoretical concentration, and vice versa (Linneberg & Korsgaard, 2019). As a result, the combination of these two approaches removes the potential weaknesses of each individual approach.

In the first coding phase, the authors used deductive coding, which was performed on the final set of included papers. This study employed a meta-synthetic approach to code the literature's content. This approach enables the inductive investigation of themes and ideas to be conducted in a manner that is more hermeneutic, thus paving the way for the improvement of new theories and information (Finfgeld-Connett, 2010; Finlayson & Dixon, 2008; Leary & Walker, 2018).

Therefore, to answer the research questions, the authors conducted an inductive review of previous studies that have addressed the relationship between PROSM and/or PSM with OCB in the public sector. The two authors reviewed the final included studies again to obtain the following descriptive details: author, year, journal, title, country, method, sample size, and main findings. These details are presented in Appendix 4.

In the second round of coding, the key findings gathered from each study's content were broken down into specific relationships and effects between dimension(s) of PSM and/or PROSM with type(s) and dimension(s) of OCB.

This part of the inductive analysis led to the decoding of the empirical data from the 29 studies into a total of 66 separate empirical relationships (35 items) and effects (31 items). This is because some studies provided insights into various types and/or dimensions of OCB, PSM, and PROSM (see Table 7).

To arrange and make clear the complexity and diversity of the empirical data offered by each study included in this SLR, it was crucial to disentangle the empirical evidence in this manner.

In the third round of coding, the discovered effects and relationship were arranged into topical clusters according to the variables previously identified inductively (see Table 7). This was

done to arrange the evidence recovered from the final set, which ultimately led to complete and integrated categories.

### **3.3 Reporting**

The final phase of a systematic review involves writing down the results and disseminating them to potentially interested parties (Keele, 2007).

According to Tranfield et al. (2003), a two-stage report can be created within management research. In the first stage, the researchers must provide a comprehensive “descriptive analysis” of the inputs, classifying details into simple categories using extraction forms (Tranfield et al., 2003). For instance, the following questions are examined: What is the time frame of the studies? How many studies are from Europe and how many are from the USA? Who are the authors? Can the studies be broken into sectors or by gender? (Tranfield et al., 2003). Therefore, the “descriptive analysis” of this study was performed based on country, journal, methods, and sample characteristics. After tabulating the gathered inputs, a comprehensive and detailed description of the topic was provided (Tranfield et al., 2003). In addition, to support the conclusions (provided description), the authors provided specific examples and an audit trail (Tranfield et al., 2003).

In the second stage, the researchers provide the results of a thematic analysis, regardless of the gathering technique (aggregative or interpretive; Tranfield et al., 2003). Thus, they outline what is previously known and established from the data extraction to form the fundamental inputs (Tranfield et al., 2003). To validate and ground their conclusions, they should again perform a full audit that goes back to the primary inputs (Tranfield et al., 2003). The reporting process includes, wherever feasible, connecting topics from different main inputs and emphasizing those connections (Tranfield et al., 2003).

## 4 Result

The following section presents a descriptive analysis of the reviewed studies, classifying their details into simple categories using their extraction forms and thematic analysis of them by through answering the research Questions.

### 4.1 Descriptive Results

This section provides a descriptive analysis of the studies reviewed by annual publication, country of publication, journal, discipline, data collection methods, organizational respondents, and measurement scales used for each concept.

#### 4.1.1 Annual publication

The studies selected for the SLR were published between 1990 and September 2022. As depicted in Figure 3, the relationship between PSM or/and PROSM with OCB was not the subject of any studies in the public sector between 1990 and 2004.

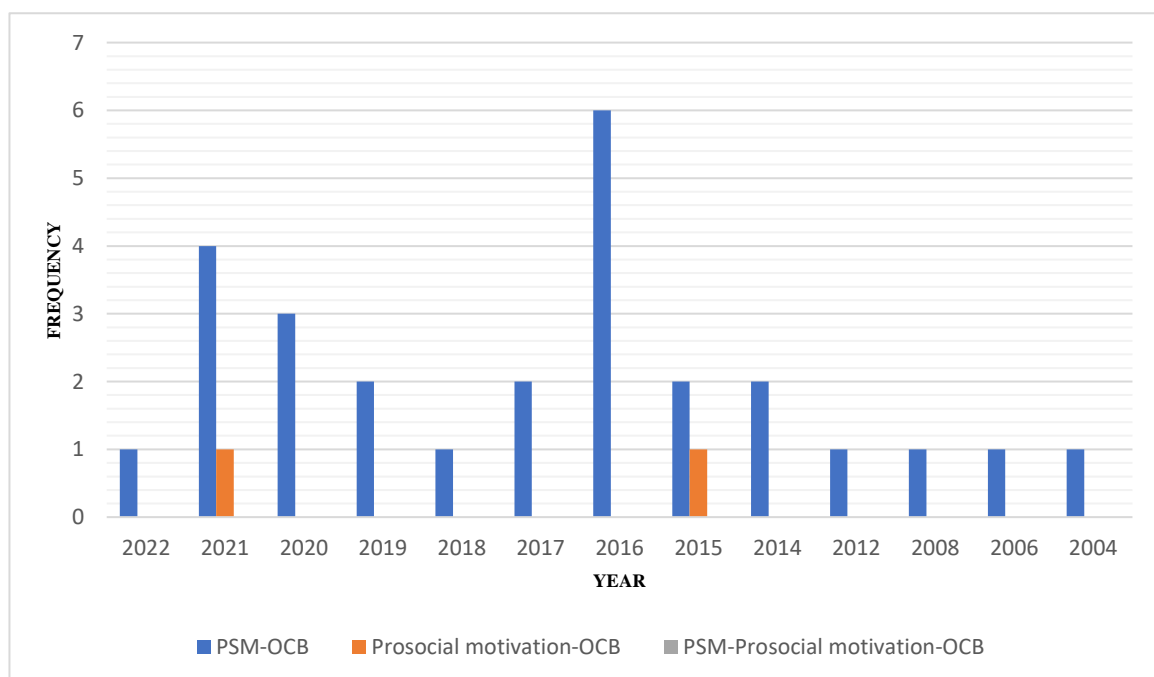


Figure 3: Summary of studies reviewed by year of publication

In the following paragraphs, the authors first discuss PSM–OCB, then PROSM–OCB, and finally PSM–PROSM–OCB.

**PSM–OCB:** Although the first research on PSM was conducted in 1990 by Perry and Wise and that on OCB was conducted in 1938 by Barnard, no studies were conducted on the relationship between PSM and OCB that met the criteria of this study until 2004.

By 2014, only one research study had been published on the issue in each of the years 2004, 2006, 2008, and 2012. The year 2014 saw an increase to two studies from the previous years. This trend was constant until 2015. The number of publications regarding PSM and OCB finally reached its highest point in 2016 ( $n = 6$ ). It can be argued that the publication volume of each year may be an indicator of researchers' interest in the relationship of PSM or/and PROSM with OCB in the public sector. PSM, on the one hand, was a fast-expanding research area that reached its peak in 2014 (Ritz et al., 2016). On the other hand, OCB studies have increased dramatically since 2011 and have become a popular topic (de Geus et al., 2020). Therefore, these findings may justify the expansion of studies related to PSM–OCB in 2016.

In 2017, the number of studies suddenly decreased from six to just two, which was an unexpected fall. Moreover, the declining trend in study numbers continued until 2018. Since 2018, the number of studies started to gradually increase again, and by 2021 it reached four.

A new downward trend in the number of studies related to PSM–OCB has been observed since 2021, and this trend persisted until the number of studies reached one in 2022.

**PROSM–OCB:** Although the first research on PROSM was conducted in 2002 by Batson et al., no studies were conducted on the relationship between PROSM and OCB that met the criteria of this study until 2015. In other words, a PROSM–OCB-related study was not performed until 2015. Only one study on this issue was published in 2015, and no more studies were observed until 2021. A study on the topic was published once again in 2021, but no other studies were observed after that.

**PSM–PROSM–OCB:** Surprisingly, no PROSM–PSM–OCB-related studies were found between 1990 and 2022.

#### 4.1.2 Publication country

The authors explored the geographical provenance of empirical data used in studies by identifying the countries where the data were collected (Figures 4).

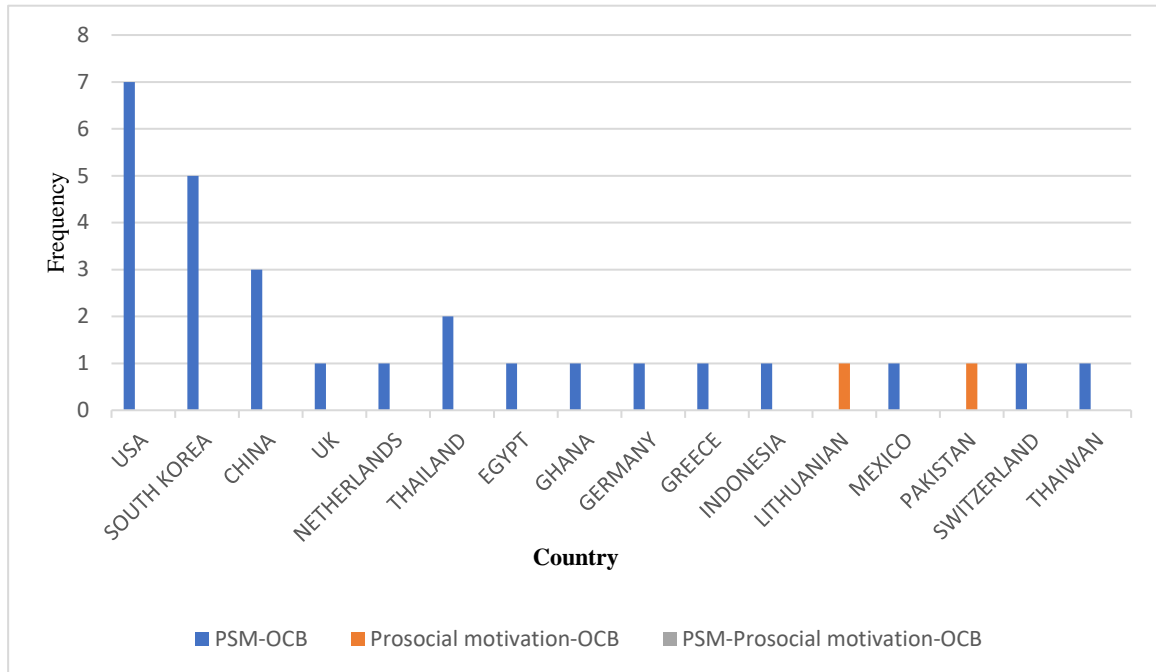


Figure 4: Distribution of the origins of empirical data used in the studies

The majority of studies have concentrated on countries located in Asia ( $n = 13$ ; 44.8%), the Americas ( $n = 8$ ; 27.8%), and Europe ( $n = 6$ ; 20.7%). The number of papers that have focused on African countries is remarkably low ( $n = 2$ ; 6.9%), which highlights the need for more investigations in this area. An examination of the frequency of studies revealed that they have been conducted in 16 different countries. South Korea was the location of five of the 13 studies conducted in Asia, followed by China with three, Thailand with two, and Indonesia, Taiwan, and Pakistan with a single study each. Seven of the eight studies conducted on the American continent are from the United States, while one is from Mexico. There was just one study conducted in each of the following six European countries: Switzerland, Germany, the Netherlands, the United Kingdom, Greece, and Lithuania. The two African studies were conducted in Ghana and Egypt. Surprisingly, the focus of the majority of countries ( $n = 27$ ; 93.1%) was on the relationship between PSM and civil servants' OCB, except for in Pakistan and Lithuania ( $n = 2$ ; 6.9%), where the relationship between PROSM and OCB was studied. In addition, the relationship between both motivations and OCB among civil servants has not been studied in any of the countries. All studies ( $n = 29$ ; 100%) have used data from just one country. This indicates that future studies should compare data from various countries (i.e., in

cross-country comparisons) to determine how PSM or PROSM is related to OCB in different administrative traditions and countries' cultures.

Studies by Ritz et al. (2016) and de Geus et al. (2020) have demonstrated that PSM and OCB are global concepts, although most studies have been performed in specific countries. Ritz et al. (2016) found that PSM is a popular topic in Europe (DK, CH, NL, D, etc.), <sup>2</sup>America (US, CA, etc.), and Asia (CN, KR, TW, etc.), while de Geus et al. (2020) found that OCB is a popular topic in America (US, etc.), Asia (CN, KR, TW, etc.), and Europe (UK, etc.). In terms of countries (US, KR, CN), the findings of this study are consistent with the findings of earlier studies; nevertheless, in terms of continents, the findings indicate that Asia is the pioneer. The authors predict that due to the huge interest in both concepts (PSM, OCB) in these countries, scholars may become willing to investigate the connection between them.

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<sup>2</sup> To identify the countries, the ISO code was used.



### 4.1.3 Journal

Table 2 presents the journal distribution of the studies included in this SLR. As the table indicates, the 29 investigations were published as articles in 20 different journals.

Table 2: Journal distribution of the studies

Journal Name	Number	% of 29	ABCD Ranking
PUBLIC PERFORMANCE MANAGEMENT REVIEW	3	10.34%	A
REVIEW OF PUBLIC PERSONNEL ADMINISTRATION	3	10.34%	A
INTERNATIONAL PUBLIC MANAGEMENT JOURNAL	3	10.34%	A
AMERICAN REVIEW OF PUBLIC ADMINISTRATION	2	6.89%	A
INTERNATIONAL JOURNAL OF PUBLIC ADMINISTRATION	2	6.89%	A
PUBLIC MANAGEMENT REVIEW	2	6.89%	A
PUBLIC PERSONNEL MANAGEMENT	1	3.45%	A
BALTIC JOURNAL OF MANAGEMENT	1	3.45%	A
BRITISH JOURNAL OF MANAGEMENT	1	3.45%	A
CHINESE MANAGEMENT STUDIES	1	3.45%	A
INFORMATION RESOURCES MANAGEMENT JOURNAL	1	3.45%	A
INTERNATIONAL JOURNAL OF MANPOWER	1	3.45%	A
INTERNATIONAL JOURNAL OF PUBLIC SECTOR MANAGEMENT	1	3.45%	A

JOURNAL OF PUBLIC ADMINISTRATION RESEARCH AND THEORY	1	3.45%	A
PUBLIC ADMINISTRATION	1	3.45%	A
PUBLIC MONEY MANAGEMENT	1	3.45%	A
SOCIAL BEHAVIOR AND PERSONALITY	1	3.45%	A
VOPROSY GOSUDARSTVENNOGO I MUNITSIPALNOGO UPRAVLENIYA PUBLIC ADMINISTRATION ISSUES	1	3.45%	A
EUROPEAN JOURNAL OF INVESTIGATION IN HEALTH PSYCHOLOGY AND EDUCATION	1	3.45%	C
PROCEEDINGS OF 2014 INTERNATIONAL CONFERENCE ON PUBLIC ADMINISTRATION 10TH VOL I	1	3.45%	-

The vast majority of the journals have published just one article ( $n = 14$ ). The highest number of studies have been published in *Public Performance Management Review*, *Review of Public Personnel Administration*, and the *International Public Management Journal* ( $n = 3$ ; 10.34% each). In addition, the authors identified three journals that had each published two articles: *American Review of Public Administration*, the *International Journal of Public Administration*, and *Public Management Review*. This underlines how dispersed the discourse on the relationship between PSM and/or PROSM with OCB is. The Australian Business Deans Council (ABDC) <sup>3</sup>provides an A score to 90% of the journals that were considered for the study; 5% of the journals had a ranking of C; while 5% had no ranking.

<sup>3</sup> This is a journal quality ranking provided by the ABDC.

#### 4.1.4 Discipline

Table 3 displays the discipline distribution of the studies included in this SLR. As the table indicates, the authors identified five disciplines that have investigated the relationship of PSM and/or PROSM with OCB. Public Administration (n = 22) and Business Economics (n = 9) are the two disciplines that account for the largest number of studies. The next most popular fields are Government Law and Psychology, both with two publications. After that comes Information Science Library Science (n = 1).

Table 3: Discipline distribution of the publications

Academic Discipline	Number	% of 36
Public Administration	22	61.11%
Business Economics	9	25.00%
Government Law	2	5.56%
Psychology	2	5.56%
Information Science Library Science	1	2.78%
<b>Total</b>	<b>36</b>	<b>100%</b>

The number of studies indicate that some investigations are multidisciplinary; that is, some studies cover more than one discipline. Since employee motivation and behavior are so crucial in various disciplines, investigations into these issues have been found in a wide number of fields (Word & Carpenter, 2013). As Rasheed et al. (2013) and Wright et al. (2013) have remarked, PSM and OCB have both gained a foothold in a large variety of fields (Rasheed et al., 2013; Wright et al., 2013). Therefore, this study confirms the previous finding. Although the largest number of studies were found to have been published in the discipline of Public Administration, the presence of traces from other disciplines demonstrates that PSM is no

longer studied exclusively in said field, as Ritz et al. (2016) previously highlighted. Therefore, PROSM and OCB have engaged with in a diverse range of disciplines.

#### 4.1.5 Data Collection Methods

Since the research process is summarized in the methodology (Chilisa & Kawulich, 2012), Figure 5 presents the choices of research methodology made by scholars when studying the relationship of PSM and/or PROSM with OCB. Thus, the figure displays the set's distribution by study methodology.

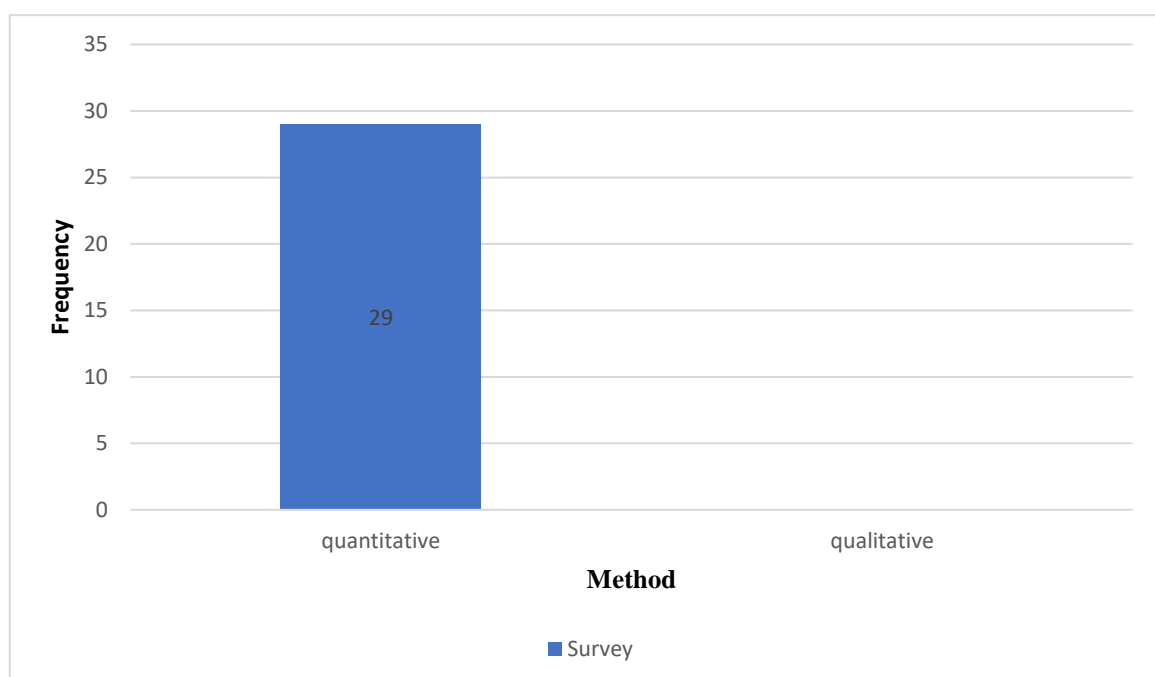


Figure 5: Methodological summary of the reviewed studies

All of the investigations have used a quantitative approach ( $N = 29$ ; 100%), while one of the studies (Campbell & Im, 2016) referred to using face to face-interviews, indicating a qualitative approach. After reviewing this study's measures and analysis section, the present authors found that the Campbell and Im had posed closed-ended questions to the participants. They only included one question about JS in the text, which was as follows: "All things considered, how satisfied are you with your current job?" (Campbell & Im, 2016). This seems to be an open-ended question. Since this concept was not the primary focus of this study, the measurement was restricted to a single item (Campbell & Im, 2016); consequently, the open-ended question was converted into a closed-ended question. All of the included studies used surveys to collect data.

#### 4.1.6 Research strategies

Table 4 presents the measurement scales used in the surveys. The vast majority of the data were collected from employees (self-reported;  $n = 26$ ; 89.661%). In addition, three studies used a mix of data from both the employees and their supervisors (mix;  $n = 3$ ; 10.34%).

Table 4: Type of organizational respondent

Factors Measured Using:	Number	% of 29
Self-reported	26	89.66%
Mix (self-reported & supervisor)	3	10.34%
<b>Total</b>	<b>29</b>	<b>100%</b>

Since common method biases can have massive implications for studies' results, it is critical to understand their sources and when they are most likely to be a problem (Podsakoff et al., 2003). The same responder providing the measurement of both the predictor and the criterion variable can lead to certain method effects (Podsakoff et al., 2003). This kind of self-report bias is caused by any artifactual covariance between the predictor and criterion variables, which stems from the fact that the same respondent measured both variables (Podsakoff et al., 2003). Given the large number of studies that relied on self-reporting, it was vital to understand how these studies managed to minimize bias. Therefore, how the studies minimized this bias is addressed as follows:

The authors of the studies that relied on self-reported data used a multi-wave period (a two- or three-wave period) to mitigate the impact of common method variance (CMV; see Abdelmotaleb & Saha, 2018; Arshad et al., 2021; Chen et al., 2021; Cho & Song, 2021; Ingrams, 2020). For example, Cheng et al. (2020) compiled the data separately based on the results of two distinct stages: PSM was evaluated in the first stage, and one month later, OCB was evaluated in the second stage (see Cheng et al., 2020). Several authors have also used data from more than one source, such as surveys filled out by both employees and supervisors, to mitigate this bias (see Potipiroon & Faerman, 2016, 2020). In addition, these authors have

proposed collecting data from colleagues for future research as well because some behaviors that may not be observable to supervisors (Lazauskaite-Zabielske et al., 2015; Potipiroon & Faerman, 2020).

Moreover, some studies provided the possibility for respondents to remain hidden, which helped to reduce the possibility of bias. Additionally, respondents could choose whether they wanted to answer questions regarding their performance, which ensured that they did not feel pressured to provide an answer that would please the researchers (see Van Loon et al., 2017). Furthermore, it was made clear to those who participated in the survey that there was no correct or incorrect response to any of the questions (see Campbell & Im, 2016). Several studies employed cross-sectional data, where it was impossible to obtain data from multiple sources or to evaluate the independent and dependent variables at different points in time (see Tsai et al., 2016). First, cross-sectional data may result in CMV. Therefore, the authors believed that by gathering data as a third party or as an external organization, they might more effectively secure anonymity and minimize assessment fear, which can result in method effects caused by social desirability, acquiescence, leniency, and consistency in responses (see Pandey et al., 2008; Ritz et al., 2014; Tsai et al., 2016). Second, the surveys' cross-sectional design made it impossible to establish causality (see Caillier, 2015; Kim, 2006; Pandey et al., 2008; Tsai et al., 2016b). In several studies, the questionnaires were distributed at random to avoid method bias caused by questioning the same employees about their impression of the variables (see Cun, 2012). Lazauskaite-Zabielske et al. (2015) mentioned that the daily diary method could be useful in future studies for quantifying motivation and estimating its within-individual heterogeneity (see Lazauskaite-Zabielske et al., 2015). The vast majority of investigations used Harmon's single factor as a post-hoc test to determine whether CMV was still present in the data after taking all of these measures. Therefore, they followed Podsakoff et al.'s (2003) guidelines to take these all of these precautions (Podsakoff et al., 2003).

#### 4.1.7 Measurement scales

Table 5 provides an overview of the PSM measurement scales employed in the studies included in this SLR:

Table 5: Types of PSM measurement scales used

Scale Author(s)	Number	% of 29
Perry (1996)	26	89.66%
Kim et al. (2013)	3	10.34%
<b>Total</b>	<b>29</b>	<b>100%</b>

PSM was measured using Perry's (1996) scale in the majority of the investigations, which accounted for  $n = 26$  and 89.66% of the total. Perry (1996) introduced a scale to measure PSM that was a 40-item survey based on six dimensions (APM, CPI, COM, SS, civic duty, and social justice). The original model, which consisted of six dimensions, was reduced to four dimensions using confirmatory factor analysis (Perry, 1996). In addition, the 40 items were reduced to 24 items that measure the four dimensions (APM, CPI [or civic duty], COM, and SS; Perry, 1996). The vast majority of studies ( $n = 15$  of 26) used a modified version of Perry's (1996) 24-item scale to measure PSM, which consisted of only five items (Abdelmotaleb & Saha, 2018; Caillier, 2015, 2016; Campbell & Im, 2016; Cheng et al., 2020; Kim, 2006; Koumenta, 2015; Pandey et al., 2008; Potipiroon & Faerman, 2016, 2020; Stritch & Christensen, 2016; Sun, 2021; Tsai et al., 2016).

Two of the questions on these five-item survey scales concerned SS, and one question concerned each of the following: social justice, public interest, and COM. Therefore, CPI, COM, and SS are the three dimensions of PSM highlighted by these items. The items were as follows: "I am often reminded by daily events about how dependent we are on one another"; "Meaningful public service is very important to me"; "Making a difference in society means more to me than personal achievements"; "I am not afraid to go to bat for the rights of others even if it means I will be ridiculed"; and "I am prepared to make enormous sacrifices for the good of society"(Perry, 1996).

In addition, Karolidis and Fotis Vouzas (2019) added two more items to this current set of five items to measure PSM ( $n = 1$  of 25). These two items – “I consider public service my civic duty” and “I unselfishly contribute to my community” – were adapted from Perry (1996; see Cun, 2012).

Moreover, one study employed three items based on one dimension (CPI/civic duty) from Perry’s (1997) PSM measure (see Shim & Faerman, 2017). These three items were “I consider public service my civic duty”; “Meaningful public service is very important to me”; and “I unselfishly contribute to my community.” Since Perry’s 1997 study used the same dimensions as his 1996 study and examined several postulated antecedents of PSM, the authors classified the study in the table under Perry (1996). In one of the investigations, there were 16 items based on three dimensions (Cun, 2012), while in the other there were 14 items based on four dimensions (see Ritz et al., 2014). Consequently, most studies that employed Perry’s measure omitted the policy-making attraction dimension, while only one study omitted the SS dimension (see Bottomley et al., 2016).

According to Perry and Wise (1990), the dimensions of PSM can be associated with three distinct types of motives. Attraction to policymaking (APP) and CPI are respectively based on rational and norm-based motives, while COM and SS are based on affective motives. Thus, these dimensions reveal various aspects of PSM. Therefore, the authors proposed the use of these four dimensions for future research as they can have different effects on organizational behavior.

In three of the investigations, PSM was measured using the updated 16-item scale developed by Kim et al. (2013; see Alanazi, 2021; Gnankob et al., 2022; Van Loon et al., 2017). Kim et al. (2013) suggested numerous modifications to the multidimensional measure of PSM of Perry and Wise (1990) and Perry (1996) to facilitate the creation of a more internationally applicable measure (Kim et al., 2013).

Kroll and Vogel (2014) selected the COM dimension to measure PSM. They mentioned that its German translation considers the nuances of the ‘Germanic’ public administration (Kroll & Vogel, 2014). Therefore, the meaning of the dimension might vary depending on the context. In addition, they mentioned that the term “patriotism” could have a negative meaning because of German history. Furthermore, Hammerschmid et al. (2009) suggested that surveys in German-speaking countries use a different translation of this item (Hammerschmid et al. 2009,



as cited in Kroll & Vogel, 2014). Thus, an international standard for measuring PSM is weak because of cultural variations.

Table 6 presents an overview of the OCB measurement scales employed in the studies included in this SLR:

Table 6: Types of OCB measurement scales used

Scale Author(s)	Number	% of 30
Smith et al. (1983)	7	23.33%
Podsakoff et al. (1990)	5	16.67%
Williams and Anderson (1991)	5	16.67%
Lee and Allen (2002)	3	10%
Van Dyne et al. (1994)	2	6.67%
Morrison and Phelps (1999)	2	6.67%
Mayer and Frantz (2004)	2	6.67%
Morman and Blakely (1995)	1	3.33%
Tsui, Pearce, Porter, and Tripoli (1997)	1	3.33%
Bolino and Turnley (2005)	1	3.33%
Unclear	1	3.33%
<b>Total</b>	<b>30</b>	<b>100%</b>

In seven studies, OCB was measured using the original scale developed by Smith et al (1983). This original scale comprises 16 items – seven of which reflect altruism while nine reflect generalized compliance (C. Smith et al., 1983). They defined altruism as behavior that is directly and purposefully oriented toward helping specific individuals, while they defined generalized compliance as doing the right thing more in the system’s interest than a specific

group's interest. In two of the seven studies, the authors combined Smith's 1983 scale with other scales (see Karolidis & Vouzas, 2019; Ritz et al., 2014). In addition, Kim (2004, 2006) reported using all seven altruism items and just two of the nine generalized compliance items (see Kim, 2004, 2006). They claimed that some of the generalized compliance items were not applicable in Korean contexts, and that others were duplicated. Therefore, they omitted seven of the nine items. Arshad et al. (2021) reported using just eight of the 16 items.

In addition, extra-role behaviors were measured in the studies of Caillier (2015, 2016) using three items, which were used in the study of Balfour and Wechsler (1996). These items were as follows: "I volunteer for tasks that are not required"; "I make suggestions to improve the organization"; and "I am willing to put in a great deal of effort beyond what is normally expected to help the organization be successful" (Balfour & Wechsler, 1996). Since these items conformed with items developed by Smith et al. (1983), the authors categorized these studies using Smith et al.'s (1983) scale.

Later, Podsakoff et al. (1990) developed a scale based on Organ's 1988 original five dimensions of OCB (altruism, sportsmanship, conscientiousness, civic virtue, and courtesy; Podsakoff et al., 1990). Table 6 indicates that Podsakoff's scale was used in a total of six studies (Gnankob et al., 2022; Karolidis & Vouzas, 2019; Lazauskaite-Zabielske et al., 2015; Potipiroon & Faerman, 2016; Zainal, 2019). Two of the five studies (see Potipiroon & Faerman, 2016; Zainal, 2019) employed items adapted from Niehoff and Moorman (1993). Since these items are identical to those developed by Podsakoff et al (1990), these three studies were classified in Table 7 under Podsakoff et al. (1990).

In five of the studies (Cho & Song, 2021; Pandey et al., 2008; Potipiroon & Faerman, 2016; Ritz et al., 2014; Van Loon et al., 2017), the authors used a scale developed by Williams and Anderson (1991). Williams and Anderson developed the scale to measure both in-role and extra-role behavior because previous studies had not proved that extra-role behavior can be differentiated empirically from in-role behavior (Williams & Anderson, 1991). In addition, their scale was used to determine the difference between OCB-I and OCB-O.

OCB-O refers to behaviors that are useful to the organization overall, such as helping absent coworkers, whereas OCB-I refers to behaviors that are useful to specific individuals and develop the organization indirectly, such as notifying one's boss when absent. In fact, these definitions of OCB-I and OCB-O correspond to the definitions of altruism and generalized compliance proposed by Smith et al. (1983).

Potipiroon and Faerman (2016) measured OCB-I with six of the seven items. In the study of Van Loon et al. (2017), both in-role and extra-role behaviors were measured using Williams and Anderson's scale with individual orientation. They employed two items for extra-role behavior, namely "I help colleagues if they have a too high work pressure" and "I help new colleagues even if it is not expected of me." In the study of Ritz et al. (2014), OCB was measured with both individual and organizational orientation. In addition, Cho and Song (2021) employed the same items as Stumpf et al. (2013), who employed items that included "I help my colleagues who are absent or have lots of workloads"; "I listen to my colleagues' problems and concerns"; and "I help my boss even if he or she does not ask" (Stumpf et al., 2013). Since these items were originally developed by Williams and Anderson, the study of Cho and Song (2021) was placed in Table 6 under the scale of Williams and Anderson.

Previous scales were improved by Lee and Allen by concentrating on behaviors that are obviously advantageous for both the individual and the organization. This was done to avoid the possibility of overlap with other behaviors that occur in the workplace (Lee & Allen, 2002). As a result, they eliminated behaviors such as time spent on personal phone conversations. Bottomley et al. (2016) measured OCB-O and OCB-I with a set of eight items developed by Lee and Allen, while Cheng et al. (2020) employed 16 items from Lee and Allen's scale.

Van Dyne et al. (1994) developed a new measurement of OCB driven by political philosophy. They claimed that this scale could be suitable when change and innovation are important due to pressures from the external environment or competitors (Graham, 1994; Van Dyne et al., 1994). The scale of Van Dyne et al. (1994) was used in two studies (Koumenta, 2015; Lazauskaite-Zabielske et al., 2015).

Chen et al. (2021) and Shim and Faerman (2017) measured change-oriented OCB using the original scale developed by Morrison and Phelps (1999). Chen et al. (2021) used nine-items and Shim and Faerman (2017) used four-items. The four common items between the two studies were "I try to change work processes in order to increase efficiency"; "I try to make suggestions in order to improve the operations of the organization"; "I try to fix unnecessary or faulty procedures"; and "I try to introduce new processes in order to increase organizational effectiveness" (Morrison & Phelps, 1999).

Mayer and Frantz (2004) developed a new scale for measuring people's characteristic degrees of emotional connection to the natural environment. This scale was developed to discover how "connected" an employee is to nature, not simply what they think about the importance of

nature, which could lead to answers that are socially desirable (Mayer & Frantz, 2004). 12 items of this scale were employed in two included studies (see Stritch & Christensen, 2016; Tsai et al., 2016).

Moorman and Blakely (1995) developed new scale with 19 items to explain the four dimensions of interpersonal helping, individual initiative, personal industry, and loyal boosterism (Moorman & Blakely, 1995). Their scale was observed in two studies (see Lazauskaite-Zabielske et al., 2015; Shim & Faerman, 2017). Shim and Faerman (2017) employed Moorman and Blakely's (1995) interpersonal helping items to measure OCB, namely "I go out of my way to help new employees;"; "I assist my supervisor with his/her work when not asked"; and "I help others who have heavy work loads." These items were developed by Smith et al (1983) and Williams and Anderson's (1991) OCB-I scale and did not conform with Moorman and Blakely's (1995) scale. Thus, Shim and Faerman's (2017) study was classified as unclear in the table. As a result, the number of studies that have employed Moorman and Blakely's (1995) scale was reduced to a single study.

Potipiroon and Faerman (2016) employed three items from Tsui et al.'s (1997) scale to measure OCB-O. The three items were as follows: "This employee makes suggestions to improve organization"; "This employee is willing to speak up when policy does not contribute to goal achievement of the organization"; and "This employee suggests revisions in work to achieve organizational objectives" (Tsui et al., 1997).

Traditional measures of the individual initiative are usually short and concentrate on behaviors that are most pertinent to blue-collar workers (Bolino & Turnley, 2005). Bolino and Turnley (2005) developed a 15-item scale that referred to working overtime. Only Potipiroon and Faerman (2020) employed seven items from this scale to measure working overtime.

The PROSM measurement scales employed in the studies included in this SLR are as follows: PROSM was measured in one study using the Eisenberg et al. (1995) scale, and in another using the Ryan and Connell (1989) scale.

Arshad et al. (2021) employed five items developed by Eisenberg et al. (1995). Two examples are as follows: "I do my best when I am working on a task that contributes to the well-being of others" and "I like to work on tasks that have a potential to benefit others."

Lazauskaite-Zabielske et al. (2015) employed four items from Grant's (2008) study to measure PROSM. Indeed, Grant (2008) employed items developed by Ryan and Connell (1989) to measure PROSM and intrinsic motivation. The introductory question was "Why are you

motivated to do your work?” (Grant, 2008). In addition, four potential answers were dedicated to measuring each type of PROSM, namely “Because I care about benefiting others through my work”; “Because I want to help others through my work”; “Because I want to have positive impact on others”; and “Because it is important to me to do good for others through my work” (Grant, 2008; Ryan & Connell, 1989).

Due to the fact that just two studies have focused on PROSM, the authors were unable to obtain more information regarding the measurement scale for PROSM. A total of 29 studies were included in the review. Among them, 27 were focused on PSM, two on PROSM, and all 29 on OCB as a constant factor. Table 6 reveal that the number of applied measures does not equal the number of included studies, because several of the studies employed more than one scale. Moreover, several of the included studies cited the studies that employed the scales rather than the scale’s original developer. Hence, the present authors attempted to identify the scale’s original developer by pursuing the references.

#### **4.1.8 Answering the Research Questions**

In total, 29 studies were included in the SLR. Inductive analysis (see the methods in Chapter 3) was used to evaluate each of the 29 papers based on the explicit empirical relationships discovered in these studies. Using this approach,  $n = 66$  precise and empirically validated relationships were found (see Table 7). Thus, these discovered empirical relationships were classified based on the types, roles, and dimensions of OCB, PSM, and PROSM (see Table 7). In addition, these clear relationships between the evaluated variables as well as the empirical valences are presented in Table 7— in other words, whether the variable’s relationship (PSM or PROSM) with OCB was positive, nonsignificant, or negative. In addition, relationships between PSM (or PROSM) and OCB were detected respectively as direct and indirect due to the moderator and mediation roles of the other factors; these relationships were also indicated by a positive and negative value, respectively.

[Table 7 here]

The empirical evidence regarding these relationships was slanted toward the types of OCB ( $n = 26$ ; 39.39%) and general OCB ( $n = 23$ ; 34.85%). This demonstrates that the dimensions of OCB ( $n = 17$ ; 25.76 %) and the role of OCB ( $n = 1$ ; 1.79%) are less investigated.

Figure 6 demonstrates the relationship between the variables of this study, the role of other variables in these relationships, and their valences. Mapping the discourse's status quo revealed a relationship between motivations and OCB, which should be generalized to the effect of other

variables on motivations and the effect of motivations on other variables in the OCB direction. Civil servants' likelihood of exhibiting OCB is derived from their attitudes toward it, which is dependent on factors related to ethical principles as well as the moral identities internalized by the civil servants. Therefore, an individual's attitude toward public value can be affected by a variety of variables, or an individual's attitude based on public value can influence these variables, which helps to facilitate OCB. This review revealed that the relationship between PSM and OCB is direct, moderating, mediating, moderated mediating, buffering, and indirect through other factors. In comparison, the relationship between PROSM and OCB is direct and indirect. In the following subsections, these results are synthesized. Table 7 provide a summary of the result, while Figure 6 provides a general overview.

[Figure 7 here]

### **1. What is the relationship between PSM and OCB?**

The first research question addressed which types and dimensions of OCB have been studied in the literature in terms of their relationship with PSM and its dimensions. Among the 29 studies, 27 were focused on the relationship between OCB and PSM.

The empirical evidence regarding these relationships is slanted toward general PSM ( $n = 35$ ; 53.03%) and the role of PSM ( $n = 14$ ; 21.21%), demonstrating that the dimensions of PSM ( $n = 5$ ; 7.58 %) are less investigated.

#### **Direct relationship between PSM and OCB**

The reviewed set revealed  $n = 27$  (40.91%) cases of empirical evidence concerning the direct relationship between PSM and OCB.

Therefore, positive direct relationships were found between PSM and extra-role behaviors (Caillier, 2015, 2016; Kroll & Vogel, 2014; Van Loon et al., 2017), OCB (Abdelmotaleb & Saha, 2018; Alanazi, 2021; Cho & Song, 2021; Gnankob et al., 2022; Ingrams, 2020; Karolidis & Vouzas, 2019; Kim, 2004, 2006; Koumenta, 2015; Ritz et al., 2014; Shim & Faerman, 2017), OCB-I, OCB-O (Bottomley et al., 2016), ICB (Pandey et al., 2008), change-oriented OCB (CO-OCB; Campbell & Im, 2016; Sun, 2021), and OCB-E (Stritch & Christensen, 2016; Tsai et al., 2016). In the vast majority of studies, the rational aspect of PSM has been neglected. The reason for this could be that it is perceived to be incompatible with the nature of OCB because it refers to maximizing personal benefit through public service (Perry & Wise, 1990).

To be more precise, Cun (2012) and Zainal (2019) considered affective and normative aspects of PSM. Cun (2012) revealed that PSM based on normative drivers had a significant effect on the altruistic dimension of OCB (Cun, 2012). That is, an employee exhibits OCB when he or she is motivated by specific normative attitudes. Furthermore, PSM based on affective drivers had a significant effect on general OCB (Cun, 2012) and civic virtue (Zainal, 2019). That is, an employee exhibits OCB when he or she is emotionally committed to a particular public service. As a result of these explanations, normative and affective aspects of PSM are consistent with the nature of altruistic and civic virtue dimensions of OCB, respectively (Zainal, 2019).

Among these studies, only Cheng et al. (2020) investigated the relationship between both factors in detail. Indeed, they considered all dimensions of PSM, including APP, CPI, COM, and SS, with three OCB directions, which were directed to individuals (I), groups (G), and organizations (O). They revealed that COM and SS had direct effects on OCB-I; CPI had a direct effect on OCB-G; and APP had a direct effect on OCB-O, while they had no direct or indirect effect on OCB-G. These findings demonstrate that different orientations of OCB can be encouraged by different dimensions of PSM. That is, OCB is more likely to occur when certain dimensions of PSM are present.

Up to this point, the presence of a relationship between PSM and OCB has been explored. How this relationship is generated is discussed in the following subsection.

### **Moderator role of other factors in the direct PSM–OCB relationship**

The reviewed set revealed  $n = 6$  (9.09%) cases of empirical evidence concerning the role of other factors, such as JS, organizational support, affective commitment to change, transformational leadership styles, and autonomy as moderators of the relationship between PSM and OCB.

Karolidis and Vouzas (2019) found that JS moderates the relationship between PSM and helping behavior in public sector employees. In other words, motivated, job-satisfied public sector employees are more inclined to display helping behavior (Karolidis & Vouzas, 2019). JS depends on what employees want, need, and expect from their jobs (Karolidis & Vouzas, 2019). This belief is intensified in the public sector because a civil servant's desire to help others and make a positive difference in society is satisfied by his or her job. Thus, JS in public organizations links motivation to altruistic behavior by greatly valuing organizational objectives (Karolidis & Vouzas, 2019).

In line with employee satisfaction, organizational and supervisory support should also be considered. Cho and Song (2021) found that civil servants with high levels of PSM under deficient organizational support are more likely to engage in OCB. Thus, unsupportive work environments moderate the relationship between PSM on OCB (Cho & Song, 2021). In addition, they mentioned that supportive work environments negatively moderate this relationship. This is because employees with a high level of PSM are more focused on overcoming organizational restrictions caused by unsupportive environments, such as a lack of a system for supporting a work–family balance (Cho & Song, 2021). These findings could reflect employees' desire to make a change due to their conviction in its inherent advantages (Herold et al., 2008). However, Sun (2021) revealed that affective commitment to change did not significantly moderate the influence of PSM on change-related proactive behavioral responses. In addition to the aforementioned variables, Kroll and Vogel (2014) found that transformational leadership skills also moderate the relationship between PSM and extra-role behavior (performance information use). In other words, the ability of a supervisor to exercise transformational leadership styles has a positive moderating effect on this relationship (Kroll & Vogel, 2014). Therefore, PSM-driven managers who work for transformational leaders are more likely to use performance data than managers who do not (Kroll & Vogel, 2014). The reason is that this leadership style meets the requirements of PSM-oriented civil servants better than others, since they are able to integrate the prosocial principles of followers into the mission and ethos of their organization (Kroll & Vogel, 2014). Moreover, employees with a high level of PSM are more involved in OCB if they are granted sufficient autonomy by their leaders (Cho & Song, 2021). Therefore, this finding confirms that of Kroll and Vogel (2014) regarding the role of leaders.

In summary, the relationship between PSM and OCB is significantly moderated by factors JS, lack of organizational support, transformational leadership styles, and autonomy but not significantly moderated by affective commitment to change factor.



### **Moderating role of PSM**

The reviewed set revealed  $n = 3$  (4.54%) cases of empirical evidence concerning the moderating role of PSM in the relationship between other factors (e.g., transformational leadership, interpersonal justice, and organizational commitment) and OCB.

To complete the discussion of Kroll and Vogel (2014), Bottomley et al. (2016) reported that the motivational impacts of transformational leadership were weaker for public sector followers with higher PSM than for those with lower PSM, because employees' values converge with those of their organizations. In other words, they are already motivated and do not require encouragement from a leader. Kroll and Vogel (2014) pointed to the existence of PSM, while Bottomley et al. (2016) pointed to the level of PSM.

In contrast to Cho and Song (2021), Potipiroon and Faerman (2016) considered two directions of OCB – namely OCB-I and OCB-O. OCB-I exerts a direct effect on individuals but an indirect effect on the organization (Williams & Anderson, 1991). OCB-O refers to those OCBs directed toward organization as a whole (Brief & Motowidlo, 1986; Williams & Anderson, 1991). They indicated that PSM worked as a moderator in the relationship between interpersonal justices (treating employees with courtesy, consideration, and fairness) and OCB-O. Thus, those with lower PSM have a greater response to the quality of interpersonal treatment than those with higher PSM. Therefore, employees with high PSM are likely to continue making valuable voluntary contributions to the organization even if they are subjected to unfair treatment. As a result of these explanations, their commitment to the public value is stronger than that to the organization. In line with this, the authors considered the study of Stritch and Christensen (2016), who demonstrated the moderating role of PSM in the relationship between organizational commitment and eco-initiative (OCB-E). That is, when PSM is low, the impact of organizational commitment on eco-initiative participation increases, whereas when PSM is high, the impact of organizational commitment decreases (Stritch & Christensen, 2016). The reason is that for employees with high PSM, the benefit of society takes priority over the benefit of the organization (Stritch & Christensen, 2016). Therefore, employees' PSM surpasses the motive of their commitment to the organization. This suggests PSM's potential as an alternative to commitment to the organization for certain employees (Stritch & Christensen, 2016). In other words, certain employees with low organizational commitment but high PSM will have roughly the same level of participation in eco-initiatives as those with high PSM and organizational commitment (Stritch & Christensen, 2016). Briefly, even if an employee is not committed to his/her organization but is motivated from a larger political or social entity, he/she

will engage more in eco-initiatives. As a result, PSM conditions the impact of organizational commitment on eco-initiatives for certain types of employees.

In summary, PSM negatively moderates the direct transformational leadership–OCB, interpersonal justice–OCB–O, and organizational commitment–eco initiative relationships.

### **Buffering role of PSM**

The reviewed set revealed  $n = 2$  (3.03%) cases of empirical evidence concerning the buffering role of PSM in the relationship between other factors (e.g., lack of organizational support and emotional exhaustion) and OCB.

Cho and Song (2021) discovered that PSM buffers the negative effect of a lack of organizational support. Thus, employees with high PSM are more engaged in overcoming organizational deficits resulting from unsupportive settings. Since OCB is compatible with their role identity (high PSM), they are more likely to participate in OCB under such situations. The question that arises here is whether the lack of organizational or /and supervisor support results in emotional exhaustion derived from OCB. Indeed, Potipiroon and Faerman (2020) shed light on the role of PSM in the relationship between OCB and OCB's outcome, namely the interaction between PSM, perceived supervisor support (PSS), and emotional exhaustion, which derive from individual initiative (e.g., working after normal office hours). They demonstrated that when PSM was low, individual initiative increased emotional exhaustion significantly, but when PSM was high, there was no significant change in the level of emotional exhaustion. However, when PSM and PSS were simultaneously high, the effect of individual initiative on emotional exhaustion was significantly more negative than the previous interaction (Potipiroon & Faerman, 2020).

If employees are treated well at work, they will think they are important to the organization, while if their PSM level is high, they will feel that performing beyond what is written in the employment contract is compatible with their role identity (high PSM; Potipiroon & Faerman, 2020). Therefore, employees will not experience pressure and despair in such a situation. (Potipiroon & Faerman, 2020). Thus, PSM and PSS synchronously buffer the negative impact of individual initiative (Potipiroon & Faerman, 2020).

In summary, PSM buffers the lack of organizational support–OCB and individual initiative–emotional exhaustion.

### **Mediator role of PSM**

The reviewed set revealed  $n = 6$  (9.09%) cases of empirical evidence concerning the mediator role of PSM in the relationship between other factors (e.g., corporate social responsibility [CSR], transformational leadership, servant leadership, goal clarity, and gender) and OCB.

In previous findings, the role of employees' perceptions of CSR has been highlighted. Abdelmotaleb and Saha's (2018) study on the mediating role of PSM on the relationship between employees' perceptions of CSR and OCB offered a precise perspective. Turker (2009) split CSR into two parts – internal and external. Internal CSR is a company's responsibility toward its own employees, while external CSR is a company's responsibility toward society (Turker, 2009 as a cited in Abdelmotaleb & Saha, 2018). They revealed that PSM could partially mediate the relationship between internal CSR and OCB (Abdelmotaleb & Saha, 2018). That is, if employees believe that they are well treated in their organization, they are more likely to demonstrate OCBs that support the organization in moving toward society (Abdelmotaleb & Saha, 2018). On the other hand, they found that the relationship between external CSR perceptions and OCB is fully mediated through PSM (Abdelmotaleb & Saha, 2018). In fact, employees' perceptions of the company's responsibility toward society could evoke workers' desire to serve society's well-being, thereby boosting their OCB (Abdelmotaleb & Saha, 2018).

Therefore, the factors that could play a vital role in this regard should be considered. For example, the role of leadership may be critical in shaping employees' perceptions of CSR. In light of this, the interaction between leadership role and style with PSM and their effect on OCB were determined from the studies of Ritz et al. (2014) and Gnankob et al. (2022).

They found that PSM mediates not only the relationship between transformational leadership and OCB (Ritz et al., 2014) but also that between servant leadership and OCB (Gnankob et al., 2022). Therefore, leadership plays a vital role in the performance of discretionary behaviors in organizations (Gnankob et al., 2022). Two leadership styles—servant and transformative—were defined in the studies as follows: Leaders with a servant leadership style serve others first and then lead them (Gnankob et al., 2022; Greenleaf, 1979, 2002). When servant leaders care about their employees' well-being, seek their progress, and provide them with autonomy (supervisor support), they receive extra-role behavior in return (Gnankob et al., 2022). Moreover, since public servants consider their supervisor to be role models, their actions inspire employees to adhere to civic duty and to work for society (Bandura & Walters, 1977;

Gnankob et al., 2022). As a result, such leaders are not only able to develop employees' PSM but are also compatible with employees' role identity (high PSM), which stimulates their extra-role behaviors.

By contrast, leaders with a transformative leadership style motivate public servants to uphold public service principles (Ritz et al., 2014). In line with this definition, such leaders in public sector organizations develop an organizational culture based on public values and encourage employees to pursue these visions (Ritz et al., 2014). In other words, the fundamental responsibility of transformative leaders is to raise the incentives for followers to perform above the call of duty (Bass, 1997 as cited in Ritz et al., 2014). Therefore, this style is able to develop employees' PSM, which stimulates their extra-role behaviors (Ritz et al., 2014). In contrast to the study of Kroll and Vogel (2014), which accepted maintaining employees' existing PSM as a stimulator of extra-role behavior, Ritz et al. (2014) argued that extra-role activity increases when public service attitudes and organization objectives are cultivated as a result of transformative leadership behavior. Briefly, these empirical findings indicate a significant indirect relationship between leadership and employee behaviors through public values (Gnankob et al., 2022; Ritz et al., 2014).

In addition to these factors, the importance of goal clarity in organizations was also considered by Caillier (2016). He discovered that extra-role behaviors were partially affected by goal clarity in a positive way through PSM. In other words, employees are encouraged to devote more time to responsibilities that align with their public values when their responsibilities are clarified (Caillier, 2016). Thus, their altruistic motivations are stimulated, and they are more connected to their responsibilities, and therefore, they demonstrate more OCB.

According to Alanazi (2021), PSM also plays a mediator role in the relationship between gender and OCB. Their results indicated that an employee's gender is a predictor of his or her OCB and PSM levels. Due to the direct relationship between gender and OCB, men were discovered to have higher OCB levels than women. When PSM was used to mediate the relationship between gender and OCB, a different result emerged: Women had higher OCB levels than men (Alanazi, 2021), as women are more motivated to work in public organizations than men (Alanazi, 2021). Indeed, they also have higher PSM levels than men (Alanazi, 2021). Consequently, the degree of PSM predicts variation in the OCB level for both men and women.

In summary, while partially mediating the effect of internal CSR, and goal clarity on OCB PSM significantly mediates the effect of external CSR, transformational leadership, servant leadership, and gender on OCB.

### **Mediator role of CO-OCB**

The reviewed set revealed just  $n = 1$  (1.51%) case of empirical evidence concerning the mediator role of CO-OCB in the relationship between PSM and turnover intention.

Campbell and Im found that CO-OCB mediates the relationship between PSM and turnover intention. That is, higher levels of PSM make it more likely that the employee will accomplish change-oriented efforts, and thus, such an employee would be less likely to quit his or her job (Campbell, 2022). Here, it is crucial to emphasize the study of Sun (2021), who investigated the interaction effect between PSM, affective commitment to change, and employment relationships on change-related turnover intention among employees. She found that the integration of employees into the organization (person–organization [P–O] fit) plays a critical role in this moderation. To be more precise, permanent employees have a stronger link with their organization than temporary employees (Sun, 2021). Therefore, temporary employees with high PSM and low affective commitment to change would have lower emotional links to the organization; thus, they may seek a safer workplace to satisfy their PSM (Sun, 2021). As a result, the positive effect of PSM is restricted by how employees value their insider position (e.g., permanent employees; Sun, 2021).

In summary, the relationship between PSM and turnover intention is significantly mediated by CO-OCB.

### **Mediator role of OCB-I**

The reviewed set revealed just  $n = 1$  (1.51%) case of empirical evidence concerning the mediator role of OCB-I in the relationship between SS and OCB-G.

Cheng et al. (2020) found that OCB-I mediates the relationship between SS and OCB-G. That is, higher levels of SS make it more likely that the employee will engage in OCB. It demonstrated that SS was oriented toward the individual, not collectivism.

In summary, the relationship between SS and OCB-G is significantly mediated by OCB-I.

### **Indirect relationship between PSM and OCB**

The reviewed set revealed  $n = 5$  (7.58%) cases of empirical evidence concerning the indirect effect of PSM on the OCB.

Caillier (2015) focused on the mediating role of mission valance in the relationship between PSM and extra-role behavior. They found that the relationship between PSM and extra-role behaviors was partially mediated by employees' feelings about the organization's mission valance (Caillier, 2015). Furthermore, Pandey et al. (2008) found partial support for the indirect influence of PSM on interpersonal citizenship behavior (ICB) in public organizations via mission valence and organizational commitment. Specifically, when an organization's mission becomes more prominent and alluring to its employees, they are likely to exert voluntary effort for the organization (Caillier, 2015). That is, employees with PSM care about serving society, which is the organization's purpose, which leads to the attractiveness of the organization's mission increasing and, in turn, extra-role behavior (Caillier, 2015). In light of this finding, it is worth considering Karolidis and Vouzas's (2019) study, which identified organizational identification as a mediator in the relationship between PSM and OCB. They explained that public sector employees are more likely to identify with their organization if they are highly driven by a public ethos (Karolidis & Vouzas, 2019). This attitude of oneness with public organizations encourages employees to display extra-role behavior (Karolidis & Vouzas, 2019). In other words, if employees with PSM perceive organizational missions to be meaningful because their goals and values are similar, they will exhibit more extra-role behavior (Caillier, 2015). Thus, organizational identification mediates the relationship between PSM and helping behavior in public sector employees. Indeed, both organizational identification and the attractiveness of organization's mission valance refer to the P-O fit.

In addition to these findings, Van Loon et al. (2017) studied the mediator role of the P-O or person-job (P-J) fit in the relationship between PSM and extra-role behavior. In contrast to the previous findings, they found no significant correlation between P-O or P-J fit and extra-role conduct. Therefore, these fits could not mediate the relationship between PSM and extra-role behavior.

In summary, the relationship between PSM and OCB is significantly mediated by factor organizational identification but not significantly mediated by factors mission valence and organizational commitment. Furthermore, this relationship is not mediated by factors P-O or P-J.

### **Moderator-mediator role of PSM**

The reviewed set revealed  $n = 3$  (4.54%) cases of empirical evidence concerning the moderator-mediator role of PSM.

Leaders with an empowering leadership style empower and motivate employees by giving them responsibilities and autonomy (Chen et al., 2021). Chen et al. (2021) found that employees with a high level of PSM increase the significantly positive impact of empowering leadership on job crafting and CO-OCB. Specifically, PSM facilitates the indirect impact of empowering leadership on CO-OCB through job crafting. Job crafting refers to employees adjusting their task or relational limits physically and cognitively (Bakker et al., 2012). Adjustments in the form, complexity, or number of job responsibilities or workplace relationships are called “physical changes,” while changes in how an employee perceives his/her job are called “cognitive changes” (Bakker et al., 2012). Since employees with a low level of PSM are not highly motivated to actively change their task or relational limits physically and cognitively, even if they have authority and autonomy from leaders, it is difficult for them to exhibit a high level of change-oriented OCB (Chen et al., 2021).

On the other side, Potipiroon and Faerman (2016) revealed that when PSM was low, the conditional indirect effects of ethical leadership (Potipiroon & Faerman, 2016) via interpersonal justice perceptions on OCB-I and OCB-O were all significant, while they were nonsignificant when PSM was high. Ethical leaders influence employees’ sense of fairness, which affects their personal commitments to supervisors, coworkers, and the organization (Potipiroon & Faerman, 2016). Employees who have high PSM will be less affected by their perceptions of injustice, whereas those with low PSM will be more likely to restrict their contributions when they experience interpersonal injustice (Potipiroon & Faerman, 2016). Therefore, PSM could be a buffer against unfair supervisors and other bad things that occur in an organization (Potipiroon & Faerman, 2016). When leaders behave in a manner consistent with generally held principles, their employees will perceive them as interpersonally fair (Potipiroon & Faerman, 2016). This will drive employees to participate in a broad variety of positive work behaviors. The norm of reciprocity is unnecessary for employees with high PSM, whose behaviors would be driven through their own motives and COM for others (Potipiroon & Faerman, 2016). It is also feasible that they would consider their efforts to be part of their public service responsibilities.

In summary, PSM negatively moderates the conditional indirect effects of ethical leadership via interpersonal justice perceptions on OCB-I and OCB-O, while positively moderating the conditional indirect effects of empowering leadership via job crafting on CO-OCB.

## **2. What is the relationship between PROSM and OCB?**

The second research question addressed which types and dimensions of OCB have been studied in the literature in terms of their relationship with PROSM and its dimensions. Among the 29 studies, two focused on the relationship between OCB and prosocial motivation.

The empirical evidence regarding these relationships is slanted toward general PROSM ( $n = 12$ ; 18.18%), demonstrating that the dimensions and role of PROSM have not been investigated. Indeed, the authors did not find enough papers to answer this question in detail.

### **Direct relationship between PROSM and OCB**

The reviewed set revealed  $n = 6$  (9.09%) cases of empirical evidence concerning the direct relationship between PROSM, OCB, and its dimensions.

Lazauskaite-Zabielske et al. (2015) demonstrated that PROSM is a significant cause of OCB. In other words, altruism, courtesy, civic virtue, conscientiousness, initiative, and general OCB are all similarly significantly caused by employees' PROSM. To be more precise, when employees are motivated to accomplish their work because they worry about benefiting others, they are more likely to aid others, obey organizational rules, exhibit initiative, and behave with respect (Lazauskaite-Zabielske et al., 2015). In summary, PROSM has a direct relationship with OCB.

### **Moderator role of other factors between PROSM and OCB**

The reviewed set revealed only  $n = 5$  (7.58 %) cases of empirical evidence for the moderating effect of intrinsic motivation in the relationship between PROSM and OCB.

Lazauskaite-Zabielske et al. (2015) studied the interaction between PROSM, intrinsic motivation, and OCB and its dimensions. They found that the association between PROSM and OCB and its dimensions was moderated by intrinsic motivation. To understand the moderator role of intrinsic motivation, it is important to first focus on how they defined low and high levels of intrinsic motivation in their study: A low level of intrinsic motivation meant that employees do not take pleasure in their work but push themselves to help others to alleviate guilt or boost self-esteem (Lazauskaite-Zabielske et al., 2015). They defined a high level of intrinsic motivation as employees personally preferring to help others and taking pleasure in



working in this manner (Lazauskaite-Zabielske et al., 2015). In light of these definitions, prosocially motivated employees are more likely to display OCB when their intrinsic motivation is high (i.e., she/he enjoys helping others; Lazauskaite-Zabielske et al., 2015). By contrast, prosocially motivated employees are less likely to display OCB when their intrinsic motivation is low (i.e., It is not enjoyable for her/his to help others; Lazauskaite-Zabielske et al., 2015).

Thus, the relationship between PROSM, OCB, and its four dimensions of altruism, courtesy, conscientiousness, and initiative is strengthened by intrinsic motivation (Lazauskaite-Zabielske et al., 2015). Briefly, once employees are driven both prosocially and intrinsically, they are more likely to demonstrate OCB. As stated in the theory chapter (Chapter 2), PROSM is a multi-dimensional form of motivation, whose two dimensions are altruism and egoism. Egoism is defined as assisting others in exchange for a reward (e.g., cash rewards) or avoiding punishment (e.g., self-esteem and personal guilt; Batson et al., 2011), while altruism is defined as assisting others without any expectations (Batson et al., 2011).

Considering these definitions, since the nature of intrinsic motivation overlaps with the nature of altruism, it can overcome the effect of the egoism dimension, thereby increasing OCB. These explanations could be a reason for the moderating role of intrinsic motivation in this relationship. In summary, the relationship between PROSM and OCB is significantly moderated by factor intrinsic motivation.

### **Indirect relationship between PROSM and OCB**

The reviewed set revealed only  $n = 1$  (1.51%) case of empirical evidence concerning the indirect effect of PROSM on the OCB.

Lazauskaite-Zabielske et al. (2015) explained that if employees perceive the organization atmosphere as friendly, supportive, and less controlling, they would enjoy their work, thereby displaying more OCB. Given this claim, it is worthwhile focusing on the study of Arshad et al. (2021), who investigated the interaction between PROSM, OCB, and managerial support at work. They revealed that the relationship between PROSM and OCB is mediated by managerial support.

Managerial support could not only increase but also sustain employees' PROSM (Arshad et al., 2021). This finding confirms the claim of Lazauskaite-Zabielske et al. (2015) about supportive organizational environments. In summary, the relationship between PROSM and OCB is significantly mediated by managerial support.

### **3. What is the relationship between PSM, PROSM, and OCB?**

The third research question addressed which types and dimensions of OCB have been studied in the literature in terms of their relationship with both PROSM and PSM.

Surprisingly, between 1990 and 2022, no PROSM–PSM–OCB-related papers met the inclusion criteria of this SLR. As a result, it was impossible to answer the third research question due to a lack of relevant studies.

## 5 Discussion

The purpose of this SLR was to explore the relationships between PSM, PROSM, and civil servants' OCB by synthesizing the current discourse on how these relationships are generated in the public sector. This SLR identified 66 cases of empirical evidence in 29 relevant studies on the relationship between motivations (PSM, PROSM) and discretionary behaviors (OCB) in the public sector. These studies cover both public administration discourse and scholarship from other research fields, thereby synthesizing an enormous amount of empirical evidence. OCB refers to voluntary behavior performed by employees that is to the advantage of an organization. These behaviors are driven by the employees' internal need for a sense of accomplishment, connection, or affiliation to the organization. A growing amount of scholarly attention has been paid to the motivational factors that determine why some civil servants engage in OCB. This SLR marks an important step forward not only for PSM and PROSM but also for OCB research. Prior SLR have focused only on PSM (see Ritz et al., 2016) or OCB, not the connection between these variables (de Geus et al., 2020). In comparison, this SLR identified concepts and variables in existing scholarship that influence the relationships between PSM and/or PROSM, and OCB. Thus, the current review fills this gap in knowledge, which has substantial consequences for theory and practice. In addition to what is summarized in Figure 6, this review also highlights some gaps in the current state of the literature.

First, the dimensions of PSM and the orientations of OCB have received very limited attention in previous scholarship. The vast majority of studies have only focused on PSM and OCB generally. Only Cheng et al. (2020) investigated all PSM dimensions (i.e., APP, CPI, COM, and SS) and three OCB orientations (i.e., individuals, groups, and organizations). According to their findings, distinct dimensions of PSM can stimulate different orientations of OCB. Thus, the likelihood of OCB occurring increases when particular dimensions of PSM are present. In light of this study, future researchers could consider further examining the link between the dimensions of PSM and the orientations of OCB.

According to the Figure 6, the identified interaction between PSM, OCB, and other variables is considerable from two different points of view: the antecedents of PSM and OCB as well as the outcomes of PSM and OCB.

Second, the reviewed studies do not cover the effects of a wide range of desirable and undesirable PSM antecedents in their PSM-OCB investigations. Variables identified in the reviewed studies, including gender, perceived CSR, transformational leadership, and servant

leadership, are predictors of PSM, and PSM is in turn a predictor of OCB. In other words, all factors that affect PSM are expected to have the same effect on OCB through PSM. The findings of the present study demonstrate that only a limited range of desirable antecedents are considered in the reviewed studies. Because the literature contains a wide range of PSM antecedents, including religiousness and political attitude (see Ritz et al., 2016), future researchers could consider other PSM antecedents that act as predictors of OCB through the mediator role of PSM. In addition, red tape as a famous concept for the public sector was not addressed in the PSM-OCB relationship investigations. Although previous research (Moynihan & Pandey, 2007b; Scott & Pandey, 2005) has found a correlation between PSM and red tape, this was ignored in the PSM-OCB relationship investigations, which is surprising. Thus, future researchers could consider OCB as a buffer in the PSM-red tape relationship or red tape as a moderator in the PSM-OCB relationship. In addition, identified variables such as mission valence, organizational commitment, and organizational identification are both PSM outcomes and OCB antecedents. Thus, figure 6 show that if PSM outcomes overlap OCB antecedents, PSM is related to the OCB. As a result, future researchers could consider person-organization, person-job, or person-team fits as a mediator in the relationship between PSM and OCB. However, research by Van Loon et al. (2017) has revealed that person-organization and person-job fits do not mediate the PSM-OCB relationship, but additional consideration of the mediating effect of these fits on this relationship is still needed.

Third, motivations close to the nature of PSM (i.e., selfless motivation and other oriented motivation) were not addressed in the PSM-OCB relationship investigations. Since different motivations with varying weights are at the root of each behavior, understanding the power of motivations plays a vital role. In light of this, PSM is the strongest compared to other organizational motivations that arise from organizational commitment and interpersonal justice because it goes beyond the organization to society. As a result of the moderating effect of PSM, the role of other stimuli based on rational choice in the emergence of OCB is reduced. As Stritch and Christensen (2016) mention, PSM acts as a substitute for other drivers, such as organizational commitment, because of its power. In addition, Lazauskaite-Zabielske et al. (2015) mention that intrinsic motivation increases the effect of PROSM on OCB. In light of these findings, because PSM consists of three dimensions (i.e., rational, norm-based, and affectionate), it is possible that motivations with the same nature may influence some of its dimensions in a positive or negative way. As a result, the question that arises is how PSM will influence the relationship between OCB and other motivations, which are based on social

norms and emotional responses to various social settings (e.g., intrinsic motivation, PROSM, and altruism).

Fourth, the dark sides of PSM and OCB have received very limited attention in previous scholarship. The vast majority of the reviewed studies address only the positive effects of PSM on OCB, and only one study addresses the buffering effect of PSM on OCB's dark side (emotional exhaustion). In addition, only one study addresses the mediating effect of the CO-OCB relationship on PSM's dark side (turnover intention). Therefore, future research could consider further examining the effects of the dark sides of PSM, such as work-life conflict, over-engagement, and burnout (Kinman & Jones, 2008; Schott & Ritz, 2018), on OCB and vice versa.

In the following, the existing gaps in the relationships between PROSM, PSM, and OCB will be discussed.

Within the inclusion criteria of this thesis, only two existing studies have examined the relationship between PROSM and OCB. As such, it is not possible to obtain detailed information about this relationship. However, these two studies show that PROSM has a positive relationship with OCB. The identical behavior outcome resulting from prosocial motivation and PSM might be interpreted as evidence of similarities between these two concepts. To confirm this interpretation, additional research should be conducted on the relationship between PROSM and OCB. Furthermore, additional studies should compare the relationships between PROSM and OCB with the relationship between PSM and OCB, particularly when they are influenced by other variables. Surprisingly, despite Bozeman and Su's (2015) call to enhance understanding of PSM in relation to similar concepts, no research has been undertaken on the interaction between PSM, prosocial motivation, and OCB. It is often difficult for scholars to distinguish PSM from identical concepts, such as PROSM. However, a consideration of OCB as an outcome derived from these two motivations can help to create sharper boundaries between them.

The findings of the present study have both practical and theoretical implications.

PSM partially mediates internal perceived CSR-OCB and goal clarity-OCB relationships (Abdelmotaleb & Saha, 2018; Caillier, 2016) and instead fully mediates external perceived CSR-OCB relationship (Abdelmotaleb & Saha, 2018). Furthermore, PSM performs as a substitute for organizational commitment (Stritch & Christensen, 2016). These findings support Perry's (2000) process theory which demonstrates that rational, emotional, and social processes

drive individuals and one-dimensional motivations are weak (Camilleri, 2007; Perry, 2000). As a result, these findings reflect institutional differences in the motivation processes that should be considered by both public sector managers and human resources managers. From a practical standpoint, the usual methods for boosting motivation in the public sector have mainly depended on external rewards (Perry, Engbers, and Jun 2009). However, the public sector cannot fully use external rewards to change or encourage employees to exhibit positive behavior such as OCB, identifying the PSM dimensions makes it clear that instead, it can use other options such as “norm building” and “organizational atmosphere cultivation” (Cun, 2012).

The results of the present study suggest that leadership styles in an organization that has employees with high motivation to serve the public cannot make a significant difference in the organizational environment (Chen et al., 2021; Bottomley, 2016; Potipiroon & Faerman, 2016; Kroll & Vogel, 2014). That is, in such a situation, leaders are not the source of motivation, but rather the keepers of employee motivation. In other words, if a leader is aware of the employees that are motivated and the ones that need to be motivated, he or she may experience less stress at work (Kroll & Vogel, 2014). Thus, HRMs should make an attempt to employ employees with high PSM so that they can observe OCB in the organization with low cost and effort. The authors of present study claim that the expectation of a direct relationship between leadership style and behavior is naive, as behavior derives from motivation. Thus, leadership styles contribute to motivation, which in turn results in behavior.

## **5.1 Recommendations for Future Research**

In the following, the authors of the present study address some of the methodological shortcomings along with recommendations for future studies.

### **First shortcoming**

All of the reviewed studies use cross-sectional design. However, cross-sectional design cannot clearly indicate the orientations of correlations among study variables. To prove a cause-and-effect link, future studies could use more appropriate data and methods, such as longitudinal design.

### **Second shortcoming**

All of the reviewed studies use data from a single country, and most were conducted in developed countries. Here, it is worth focusing on the study of Abdelmotaleb and Saha

(2018). In contrast to previous studies (e.g., Lamm et al., 2015; Stites & Michael, 2011), this study was conducted in a developing country (Egypt) and found that external CSR perceptions had an indirect relationship with employee OCB through PSM. In other words, the study claims that employees in developing countries are motivated by meeting their basic requirements and that external CSR is not a core concern for them. It is anticipated that the mediator role of PSM could derive from the country's developing nature. Thus, future studies could compare data from various countries (cross-country comparisons) to determine how PSM and /or PROSM are related to OCB in different administrative traditions and country cultures. In addition, self-reporting is used for the vast majority of surveys, which might result in responses that are biased (Podsakoff et al., 2003). Although the studies employed various methods to control this bias, but it would be helpful for data to also be gathered from the perspectives of colleagues or supervisors.

### **Third shortcoming**

Only the public sector was considered in the present study. However, Sharma et al.'s (2011) study demonstrates the distinction between the degree of OCB among public and private sector employees. In light of this finding, future studies could use cross-sectoral designs to provide deeper comprehension of this topic, as there are fewer studies on PSM and its connection to OCB in the private sector than in the public sector (Ingrams, 2020).

### **Forth shortcoming**

In addition, all of the examined studies use a quantitative methodology. As Chilisa and Kawulich (2012) point out, choosing the research paradigm that will guide a study is the first step in choosing a method. To gain a deeper comprehension of method selection, the authors of the present study decided to concentrate on the distinctions between various paradigms in this section. Therefore, they compared positivists and post-positivists with constructivists or interpretivists.

Both positivists and post-positivists hold the belief that reality is something that can be known and that is objective (Chilisa & Kawulich, 2012). This type of research is value-neutral and is founded on the accurate observation and reliable measurement of phenomena (Chilisa & Kawulich, 2012). However, constructivists or interpretivists assume that reality is made by society and that there are various types of realities (Chilisa & Kawulich, 2012). Therefore, truth is context-dependent, knowledge is subjective, and both are open to personal interpretation (Chilisa & Kawulich, 2012). This paradigm is also based on values and shows that people's

values affect how they think and behave (Chilisa & Kawulich, 2012). Each paradigm may be more conducive to the use of certain methods. Positivists and post-positivists frequently use a quantitative method, whereas constructivist or interpretative perspectives frequently use a qualitative approach (Chilisa & Kawulich, 2012). These explanations and the statistics of the present study made it feasible to detect methodological gaps, and the constraints connected with each paradigm contributed to a general improvement in the understanding of potential gaps (Chilisa & Kawulich, 2012). For example, employees' experiences regarding OCB in the workplace can be better understood by qualitative methods, such as interviews, because they allow researchers to go beyond simply looking at direct effects and understand how different types of motivation affect behavior. Consequently, future researchers could consider concentrating on either the constructivist or interpretivist paradigm.



## 6 Limitations of the Research

This study had some limitations. This SLR was subject to the same limitations as any other SLR with regard to methodological decisions and judgments regarding article selection and coding, from the initial phase of search term selection through study identification and selection to the coding process.

The authors discovered that the current discourse on PSM and PROSM is a dispersed field of study in which precise agreement on the independence of each notion is frequently lacking. Finding a “natural” beginning point presents a challenge for performing an SLR. We attempted to mitigate this difficulty by defining each idea beforehand. These definitions enabled us to analyze both motivations as distinct concepts and to comprehend their relationship with OCB. Specifically, this study is the first step in examining the relationship of PSM and PROSM with OCB by highlighting and criticizing an often-accepted theoretical tangle of concepts and terminology. Therefore, we encourage future research on PSM and prosocial motivation to explicitly and succinctly consider the (implicit) normativity inherent in the concept of motivation as well as to further investigate the relationship between the dimensions of PSM and prosocial motivation with OCB in the public sector workforce.

The authors opted to only consider PSM and PROSM from among the motivations and OCBs of public sector officials, omitting other types of motivation such as altruism and intrinsic motivation and other forms of behavior such as extra-role behavior. Therefore, future research might focus on integrating other forms of motivation with OCB or other forms of behavior with motives that exist among public civil servants. Moreover, the authors could not locate any study that has demonstrated the relationship between PSM, PROSM, and OCB.

Another drawback of this SLR was the scarcity of studies on the relationships between PROSM and OCB. One reason for the few studies described here could be the lack of consensus on the independence of each concept (PSM and PROSM); research in the domain of PROSM and OCB is extremely restricted compared with the relationship between PSM and OCB in the public sector.

The issue of publication bias states that research with statistically significant results is more likely to be published than studies with nonsignificant outcomes (Rothstein & Bushman, 2012); in addition, according to Smith and Noble (2014), biases are difficult to eliminate in all study and research designs (J. Smith & Noble, 2014). Therefore, the authors chose only English-language articles, which may have introduced some bias as they could have found relevant

material in non-English publications. They also selected only peer-reviewed studies because they may have lost data in non-peer-reviewed articles, which could have induced bias. Accordingly, excluding non-English and unpublished articles from this study may have led to bias since additional research may have been conducted on the topics that were not covered in this synthesis.

Gray literature, which was also excluded from the SLR, is an example of a type of information that could have been overlooked by removing unpublished material and books. Including only publications published in this review may also influence future scholars' efforts to synthesize subfield findings based on the articles supplied in this SLR.

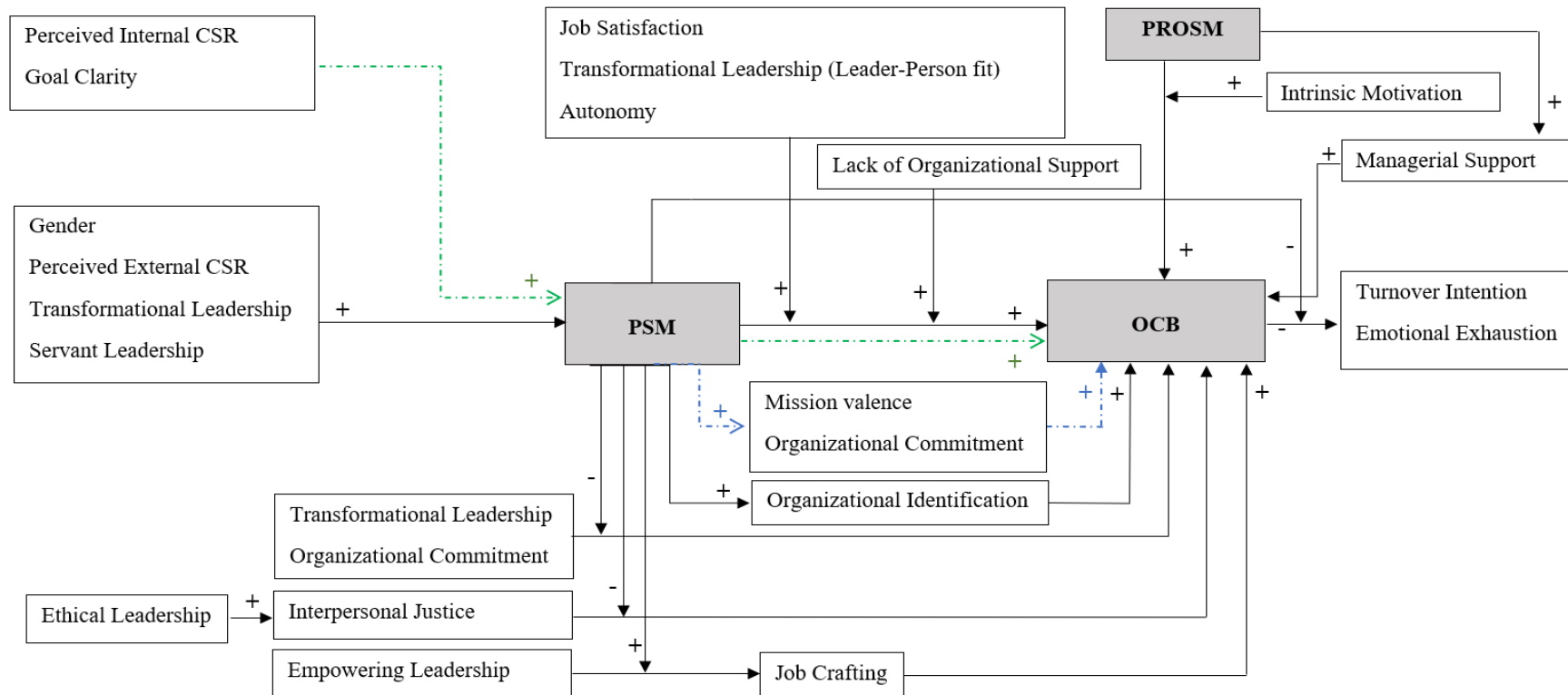
A further restriction of this study was that the authors wished to delve much deeper into the studies' details. However, due to time constraints, the work had to be delivered by a specific date, preventing them from diving into minor details. Therefore, they suggest that upcoming scholars devote considerably more time when conducting studies like this one to obtain a deeper comprehension of the relationship between PSM and PROSM with OCB and to investigate the topic in greater depth. Furthermore, the authors chose only to examine the public sector; therefore, this study did not compare the relationship between the public and private sectors. Understanding the relationship between PSM, PROSM, and OCB among people in different fields could provide additional information on their connection. Therefore, the authors hope that future scholars will consider this, attempt to examine the relationship between these concepts, and compare the public and private sectors. In conclusion, the authors emphasize that conducting this work was an enriching experience. They have provided profound insights and relevant experience in connection with scientific work, from which they can undoubtedly draw a great deal for their future projects.

Table 7: Summary of relationships between factors and types

Relationship between Factors (1& 2)	Factor (1) (Motivation)	PSM																PROSM	Frequency									
		General	Role of PSM								Dimension of PSM								n	%								
		PSM	Moderator		Mediator		Moderator mediator		Buffer		COM		CPI		SS		APP											
Factor (2) (Behavior)	+ . s .	n . s .	-	+ . s .	n . s .	-	+ . s .	n . s .	-	+ . s .	n . s .	-	+ . s .	n . s .	-	+ . s .	n . s .	-	+ . s .	n . s .	-	2	1	49	74.24 %			
General	OCB	1 3		2		1	2	1					1										2			1		
Types of OCB	OCB-O					1				1								1										
	OCB-I									1				1														
	OCB-I-Mediate													1														
	OCB-G												1															
	ICB		1																									
	CO-OCB	2	1							1																		
	CO-OCB-Mediator	1	1																									
Extra-Role-Behavior	5	3					2	1																				
Dimension of OCB	Altruism/ Helping Behavior	3																				2		17	25.76%			
	Courtesy																					2						
	Conscientiousness																					2						
	Generalized Compliance																											
	I-initiative										1											2						
	Civic Virtue	1																				1						
	OCB-E	Eco-initiative					1																					
		Eco-helping	1																									
Eco-civic engagement		1																										
Total		2 7	6	2			3	4	2		3			2			1		1		2		1		1 1	1	66	100 %

Notes: relationship valence: + = positive, significant, direct; **n.s.** = non-significant; – = negative, significant, indirect.

Figure 6: Synthesis of Empirical Evidence



Notes: (+) denotes positive relationship between factors and OCB (i.e., increasing OCB); (-) denotes negative relationship between factors and OCB (i.e., decreasing OCB); (----) denotes nonsignificant relationship between factors and OCB.

## Selbstständigkeitserklärung

Wir erklären hiermit, dass jeder von uns an dieser Arbeit mit selbstständigen Teilen beteiligt war. Wir erklären ferner, dass wir keine anderen als die angegebenen Hilfsmittel benutzt haben. Alle Stellen, die wörtlich oder sinngemäss aus Quellen übernommen wurden, haben wir als solche kenntlich gemacht. Es ist uns bekannt, dass andernfalls der Senat gemäss dem Gesetz über die Universität zum Entzug des auf Grund dieser Arbeit verliehenen Titels berechtigt ist.

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Wir erklären hiermit, dass wir der Veröffentlichung der von uns verfassten Masterarbeit im Falle einer Benotung von 5.0 oder höher auf der Homepage des KPM zustimmen. Die Arbeit ist öffentlich zugänglich.

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## APPENDIXES

### Appendix 1.

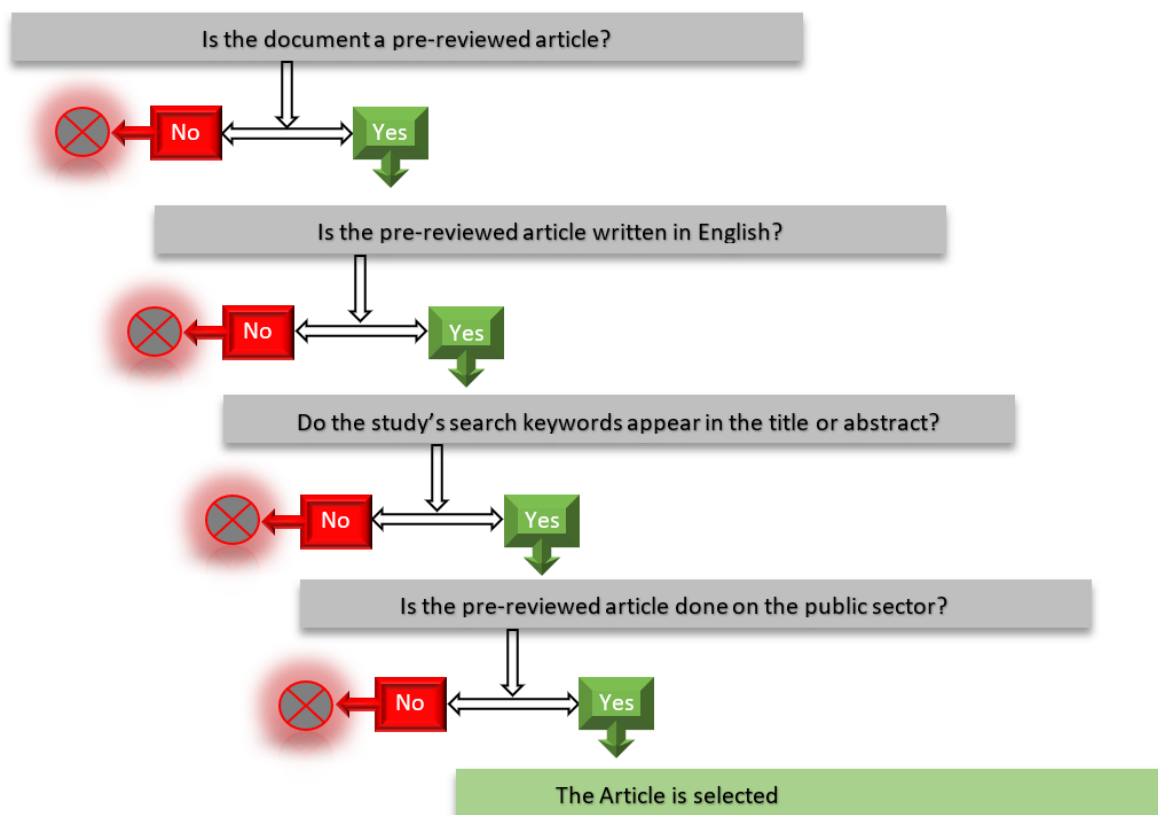
#### List of synonyms, abbreviations, and alternative spellings

(1)	(2)	(3)	(4)
Public service motivation (PSM)	Prosocial motivation AND Pro-social motivation	Organizational citizenship behavior (OCB)	AND Sector
“Public service motivation” OR  “PSM” OR  “Work motivation” OR  “Public service” OR “Compassion” OR “Civic duty” OR “Social justice” OR “Public Policy-Making” OR “Public policy making” OR “Attracting to the Policy Making” OR “APM” OR “Attracting to the Policy Making” OR “Commitment to the Public Interest” OR “CPI” “Self-Sacrifice” OR “SS”	“Prosocial motivation” OR “Pro-social motivation” OR “Altruism” OR “Other-oriented motives” OR “Recipient-centered motives” OR “Other-oriented well-being” OR “Other-oriented welfare” OR “Other-Oriented empathy” OR “Other-oriented Sympathy” OR “Other-oriented emotion” OR “Global prosocial motivation” OR “Global pro-social motivation” OR “Exocentric” OR “Egoism, OR “Endocentric” OR “Collectivism” OR “Benefiting a group” OR “Group-oriented well-being” OR “Group-oriented welfare” OR “Contextual prosocial motivation” OR “Contextual pro-social motivation” “Situational prosocial motivation”	“Organizational citizenship behavior”  OR “OCB”  OR “Other-regarding behavior”  OR “Altruism”  OR “Altruistic behaviour”  OR “Helping behaviour”  OR “Sportsmanship”  OR “Civic Virtue”  OR “Conscientiousness”  OR “Courtesy”  OR “Loyalty”	“Public sector”  OR “Public service”  OR “Public authority” OR “Public governance”  OR “Public administrat”  OR “Public organization”  OR “Public management”  OR “Civil servant”  OR “Public employee”  OR “Civil employee”

	<p>“Principlism” OR</p> <p>“Principle-based motivation” OR</p> <p>“Moral principle” OR</p> <p>“agreeableness”</p>	<p>OR</p> <p>“Self-development”</p> <p>OR</p> <p>“Individual initiative”</p> <p>OR</p> <p>“Compliance”</p> <p>OR</p> <p>“Volunteering”</p> <p>OR</p> <p>“Extra-role behaviors”</p> <p>OR</p> <p>“Organizational spontaneity”</p> <p>OR</p> <p>“Good soldier”</p> <p>OR</p> <p>“Good citizen”</p>	
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## Appendix 2.

### Screening Diagram



## Appendix 3.

### Search log primary selection

Database
<b>Web of Science Core Collection:</b>
(TS=((("public service motivation" OR "PSM" OR "work motivation*" OR "public service*" OR "compassion" OR "civic duty" OR "social justice" OR "public policy-making" OR "public policy making" OR "attracting to * policy making" OR "APM" OR "attracting to * policy-making" OR "commitment to * public interest" OR "CPI" OR "self-sacrifice" OR "SS")))) AND TS=((("organi?ational citizenship behavio\$r*" OR "OCB" OR "altruism" OR "altruistic behavio\$r*" OR "helping behavio\$r*" OR "sportsmanship" OR "civic virtue" OR "conscientiousness" OR "courtesy" OR "loyalty" OR "self-development" OR "individual initiative" OR "compliance" OR "volunteering" OR "extra-role behavio\$r*" OR "organi?ational spontaneity" OR "good soldier" OR "good citizen*")) AND TS=((("public sector" OR "public service" OR "civil service" OR "public governance" OR "public administrat*" OR "public organization\$" OR "public management" OR "civil servant" OR "public employee" OR "public sector employee" OR "civil service employee" OR "public sector management")) and 2022 or 2021 or 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2013 or 2012 or 2011 or 2010 or 2009 or 2008 or 2007 or 2006 or 2005 or 2004 or 2003 or 2002 or 2001 or 2000 or 1999 or 1998 or 1997 or 1996 or 1995 or 1994 or 1993 or 1992 or 1991 or 1990 or 1972 (Publication Years) and English (Languages) and Article or Review Article or Early Access (Document Types)
<b>Results: 396 hits</b>
(TS=((("prosocial motivation" OR "pro-social motivation" OR "altruism" OR "other-oriented motive*" OR "recipient-centered motive*" OR "other-oriented well-being" OR "other-oriented welfare" OR "other-oriented empathy" OR "other-oriented sympathy" OR "other-oriented emotion*" OR "other-regarding behavio\$r*" OR "global pro-\$social motivation" OR "exocentric" OR "egoism" OR "endocentric" OR "collectivism" OR "benefiting a group" OR "group-oriented well-being" OR "group-oriented welfare" OR "contextual pro-\$social motivation" OR "situational pro-\$social motivation" OR "principlism" OR "principle-based motivation" OR "moral principle*" OR "agreeableness")))) AND TS=((("organi?ational citizenship behavio\$r*" OR "OCB" OR "altruism" OR "altruistic behavio\$r*" OR "helping behavio\$r*" OR "sportsmanship" OR "civic virtue" OR "conscientiousness" OR "courtesy" OR "loyalty" OR "self-development" OR "individual initiative" OR "compliance" OR "volunteering" OR "extra-role behavio\$r*" OR "organi?ational spontaneity" OR "good soldier" OR "good citizen*")) AND TS=((("public sector" OR "public service" OR "civil service" OR "public governance" OR "public administrat*" OR "public

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organization\$” OR “public management” OR “civil servant” OR “public employee” OR “public sector employee” OR “civil service employee” OR “public sector management”)) and 2022 or 2021 or 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2013 or 2012 or 2011 or 2010 or 2009 or 2008 or 2007 or 2006 or 2004 or 2003 or 2001 or 2000 or 1998 or 1996 or 1995 or 1994 or 1993 or 1992 (Publication Years) and Article or Review Article or Early Access (Document Types) and English (Languages)

**Results: 123 hits**

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(TS=((“public service motivation” OR “PSM” OR “work motivation\*” OR “public service\*” OR “compassion” OR “civic duty” OR “social justice” OR “public policy-making” OR “public policy making” OR “attracting to \* policy making” OR “APM” OR “attracting to \* policy-making” OR “commitment to \* public interest” OR “CPI” OR “self-sacrifice” OR “SS”))) AND TS=((“prosocial motivation” OR “pro-social motivation” OR “altruism” OR “other-oriented motive\*” OR “recipient-centered motive\*” OR “other-oriented well-being” OR “other-oriented welfare” OR “other-oriented empathy” OR “other-oriented sympathy” OR “other-oriented emotion\*” OR “other-regarding behavior\*” OR “global pro-social motivation” OR “exocentric” OR “egoism” OR “endocentric” OR “collectivism” OR “benefiting a group” OR “group-oriented well-being” OR “group-oriented welfare” OR “contextual pro-social motivation” OR “situational pro-social motivation” OR “principlism” OR “principle-based motivation” OR “moral principle\*” OR “agreeableness”)) AND TS=((“organizational citizenship behavior\*” OR “OCB” OR “altruism” OR “altruistic behavior\*” OR “helping behavior\*” OR “sportsmanship” OR “civic virtue” OR “conscientiousness” OR “courtesy” OR “loyalty” OR “self-development” OR “individual initiative” OR “compliance” OR “volunteering” OR “extra-role behavior\*” OR “organizational spontaneity” OR “good soldier” OR “good citizen\*”)) AND TS=((“public sector” OR “public service” OR “civil service” OR “public governance” OR “public administration\*” OR “public organization\$” OR “public management” OR “civil servant” OR “public employee” OR “public sector employee” OR “civil service employee” OR “public sector management”)) and 2022 or 2021 or 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2013 or 2012 or 2011 or 2010 or 2009 or 2008 or 2007 or 2006 or 2004 or 2003 or 2001 or 2000 or 1998 or 1996 or 1995 or 1994 or 1993 or 1992 (Publication Years) and Article or Review Article or Early Access (Document Types) and English (Languages)

**Results: 60 hits**

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## Appendix 4.

### Summary of the reviewed studies

NO.	Author(s)	Year	Journal	Title	Country/ Region	Method	Sample Size	Main findings (Contribution to the SLR)
1	Gnankob, RI; Ansong, A; Issau, K	2022	INTERNATIONAL JOURNAL OF PUBLIC SECTOR MANAGEMENT	Servant leadership and organisational citizenship behaviour: The role of public service motivation and length of time spent with the leader	Ghana	Quantitative (Survey)	328 out of 357 public employees	PSM significantly and positively influenced OCB. PSM significantly mediated the relationship between servant leadership and OCB.
2	Chen, DX; Zhang, Y; Ahmad, AB; Liu, BC	2021	REVIEW OF PUBLIC PERSONNEL ADMINISTRATION	How to Fuel Public Employees' Change-Oriented Organizational Citizenship Behavior: A Two- Wave Moderated Mediation Study	China	Quantitative (Two-wave Survey)	In the first wave (290/321) and in the second wave (267/321) full- time public employees	The interaction between empowering leadership and PSM was positively related to change-oriented OCB.  The moderating effect of different levels of PSM could influence the effect of empowering leadership on change-oriented OCB through job crafting.  Specifically, when public employees have high PSM, the positive effect of empowering leadership on job crafting and change oriented OCB is strengthened.  In other words, fueling employees' change- oriented OCB requires leaders' empowerment and increases in employees' PSM.

3	Sun, SR	2021	SOCIAL BEHAVIOR AND PERSONALITY	Public service motivation and proactive behavioral responses to change: A three-way interaction	China	Quantitative (Survey)	462 public sector employees	PSM was positively associated with change- related proactive responsible behavior (directly).  The moderating effect of affective commitment to change was also not significant in the relationship between PSM and change-related responsible behavior.
4	Arshad, M; Abid, G; Contreras, F; Elahi, NS; Athar, MA	2021	EUROPEAN JOURNAL OF INVESTIGATION IN HEALTH PSYCHOLOGY AND EDUCATION	Impact of Prosocial Motivation on Organizational Citizenship Behavior and Organizational Commitment: The Mediating Role of Managerial Support	Pakistan	Quantitative (Survey)	Data from 303 administrative, instructional, and supervisory staff	Prosocial motivation is not significantly related to OCB.  Managerial support mediates the significant relationship between prosocial motivation and OCB.
5	Alanazi, L	2021	INTERNATIONAL JOURNAL OF PUBLIC ADMINISTRATION	Does Gender Really Matter? Testing the Mediating Role of Public Service Motivation between Gender and Organizational Citizenship Behavior in Federal Agencies	USA	Quantitative (Survey)	598,003 out of 1,473,870 federal employees	The relationship between PSM and OCB was positively significant.  Gender had an indirect, positive effect on OCB through its influence on PSM.
6	Cho, YJ; Song, HJ	2021	PUBLIC PERSONNEL MANAGEMENT	How to Facilitate Innovative Behavior and Organizational Citizenship Behavior: Evidence From Public Employees in Korea	South Korea	Quantitative (Survey)	2,000 public officials in 2015 and 2,070 public officials in 2016	Among the individual-level factors, PSM was positively correlated with OCB.  PSM was positively associated with OCB, where the effect of PSM was further increased with the lack of organizational support. In other words, PSM buffered a negative effect of insufficient organizational support. When individual employees enjoyed a high level of autonomy and had a high level

								of PSM, they were more actively engaged in OCB.
7	Ingrams, A	2020	REVIEW OF PUBLIC PERSONNEL ADMINISTRATION	Organizational Citizenship Behavior in the Public and Private Sectors: A Multilevel Test of Public Service Motivation and Traditional Antecedents	USA	Quantitative (Survey)	2,000 public and private employees; 468 individuals who work in federal government; 1,939 individuals working in the private sector	<p>The results revealed a significant association between PSM and OCB. The mixed-level interaction of PSM and sector was nonsignificant for OCB.</p> <p>The public sector did not significantly moderate the effect of PSM on OCB.</p>
8	Potipiroon, W; Faerman, S	2020	PUBLIC PERFORMANCE & MANAGEMENT REVIEW	Tired from Working Hard? Examining the Effect of Organizational Citizenship Behavior on Emotional Exhaustion and the Buffering Roles of Public Service Motivation and Perceived Supervisor Support	Thailand	Quantitative (Survey)	Sample of 214 employees in 41 local government organizations in Thailand	<p>Analyses confirmed the buffering role of PSM; PSM and PSS simultaneously buffered the adverse effect of individual initiative, such that those with low levels of these factors experienced emotional exhaustion more intensely.</p> <p>PSM moderated the relationship between individual initiative and emotional exhaustion, such that when PSM was high, the relationship was weak or nonsignificant, but when PSM was low, the relationship was positive.</p>

9	Cheng, KT; Chang, YC; Lee, C	2020	INFORMATION RESOURCES MANAGEMENT JOURNAL	The Effect of Public Service Motivation at Individual, Group, and Organisational Levels of Citizenship Behaviour	Taiwan	Quantitative (Survey)	1,087 employees of the utility sector in an infrastructure- relevant ministry	<p>One hypothesis that was not supported concerned the relationship between SS and perceived group-level OCB.</p> <p>However, an examination of the indirect effects revealed that SS significantly affects perceived group-level OCB through perceived individual-level OCB.</p> <p>The authors did not find any support for the effect – direct or indirect – of APP on perceived group-level OCB.</p> <p>COM and SS affect perceived individual-level OCB; only CPI directly affects perceived group-level OCB; and only APP directly affects perceived organizational-level OCB.</p>
10	Karolidis, D; Vouzaz, F	2019	PUBLIC PERFORMANCE & MANAGEMENT REVIEW	From PSM to Helping Behavior in the Contemporary Greek Public Sector: The Roles of Organizational Identification and Job Satisfaction	Greece	Quantitative (Survey)	322 out of 1,000 randomly selected public servants	<p>Helping behavior was found to have a significantly positive relationship with PSM.</p> <p>Organizational identification partially mediates the relationship between PSM and HB.</p> <p>Job satisfaction moderates the relationship between PSM and HB.</p>
11	Aqli, Z; Ujjianto; Syafi'i, A	2019	VOPROSY GOSUDARSTVENNOGO I MUNITSIPALNOGO UPRAVLENIYA-	PUBLIC EMPLOYEES' RISK AVERSION AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR:	Indonesia	Quantitative (Survey)	130 out of 192 public employees	PSM has a significant effect on OCB.

			PUBLIC ADMINISTRATION ISSUES	THE EFFECTS OF ETHICAL LEADERSHIP, WORK CULTURE AND PUBLIC SERVICE MOTIVATION				The positive relationship between PSM and OCB can be explained by the existence of civic virtue, which is an indicator of OCB.
12	Abdelmotaleb, M; Saha, SK	2018	INTERNATIONAL JOURNAL OF PUBLIC ADMINISTRATION	Corporate Social Responsibility, Public Service Motivation and Organizational Citizenship Behavior in the Public Sector	Egypt	Quantitative (survey)	Out of the 400 questionnaires distributed, 229 were returned	The results indicated that employee desires to serve the public or PSM play a mediating role in the relationship between employee perceptions of both internal and external corporate social responsibility (CSR) and employee OCB.
13	van Loon, NM; Vandenabeele, W; Leisink, P	2017	AMERICAN REVIEW OF PUBLIC ADMINISTRATION	Clarifying the Relationship Between Public Service Motivation and In-Role and Extra-Role Behaviors: The Relative Contributions of Person-Job and Person- Organization Fit	Netherlands	Quantitative (Survey)	1,031 public employees in the Netherlands	PSM was directly related to extra-role behavior.  The relationship of PSM with extra-role behavior is not mediated by person- organization and person-job fits.
14	Shim, DC; Faerman, S	2017	INTERNATIONAL PUBLIC MANAGEMENT JOURNAL	GOVERNMENT EMPLOYEES' ORGANIZATIONAL CITIZENSHIP BEHAVIOR: THE IMPACTS OF PUBLIC SERVICE MOTIVATION, ORGANIZATIONAL IDENTIFICATION, AND SUBJECTIVE OCB NORMS	South Korea	Quantitative (Survey)	452 out of 610 public employees	PSM was found to have statistically significant relationships with OCB.

15	Campbell, JW; Im, T	2016	REVIEW OF PUBLIC PERSONNEL ADMINISTRATION	PSM and Turnover Intention in Public Organizations: Does Change-Oriented Organizational Citizenship Behavior Play a Role?	South Korea	Mix- methods (survey and face-to-face interviews)	480 public employees from 16 central government ministry headquarters in Seoul	PSM is also strongly positively correlated with CO-OCB.  CO-OCB mediates the relationship between PSM and turnover intention.
16	Stritch, JM; Christensen, RK	2016	AMERICAN REVIEW OF PUBLIC ADMINISTRATION	Going Green in Public Organizations: Linking Organizational Commitment and Public Service Motives to Public Employees' Workplace Eco- Initiatives	USA	Quantitative (survey)	843 out of 3,120 employees' data	PSM conditions the impact of organizational commitment on eco-initiatives for certain types of employees. PSM exhibits a positive, direct relationship with employee participation in workplace eco-initiatives.
17	Tsai, CC; Stritch, JM; Christensen, RK	2016	PUBLIC PERFORMANCE MANAGEMENT REVIEW &	Eco-Helping and Eco-Civic Engagement in the Public Workplace	USA	Quantitative (survey)	843 out of 3,120 employees' data	PSM has positive relationships with both eco- helping and eco-civic engagement in the public workplace.
18	Bottomley, P; Mostafa, AMS; Gould- Williams, JS; Leon-Cazares, F	2016	BRITISH JOURNAL OF MANAGEMENT	The Impact of Transformational Leadership on Organizational Citizenship Behaviours:  The Contingent Role of Public Service Motivation	Mexico	Quantitative (Survey)	1,016 out of 1,500 civil ser vants	PSM had significant positive associations with both OCB-O and OCB-I.  The interaction between transformational leadership and PSM was significant and negative for both OCB-O and OCB-I.  Follower PSM increased, and the association between transformational leadership and OCBs decreased.

19	Caillier, JG	2016	PUBLIC MANAGEMENT REVIEW	DOES PUBLIC SERVICE MOTIVATION MEDIATE THE RELATIONSHIP  BETWEEN GOAL CLARITY AND BOTH ORGANIZATIONAL COMMITMENT AND EXTRA- ROLE BEHAVIOURS?	USA	Quantitative (survey)	913 out of 3,500 government employees	PSM had a positive relationship with extra- role behaviors. Goal clarity had an effect on the extra-role behaviors through PSM.  PSM mediates the relationship between goal clarity and extra-role behaviors.
20	Potipiroon, W; Faerman, S	2016	INTERNATIONAL PUBLIC MANAGEMENT JOURNAL	WHAT DIFFERENCE DO ETHICAL LEADERS MAKE?  EXPLOING THE  MEDIATING ROLE OF INTERPERSONAL JUSTICE AND THE MODERATING ROLE OF PUBLIC SERVICE MOTIVATION	Thailand	Quantitative (survey)	196 out of 250 public employees	PSM was not significantly related to OCB-O or OCB-I.  The moderation effect of PSM was significant for OCB-O but not OCB-I.  PSM moderated the relationship between interpersonal fairness and OCB-O and task performance, such that individuals with lower PSM reacted more strongly to the quality of interpersonal treatment than those with higher PSM.  The conditional indirect effects of ethical leadership through interpersonal justice perceptions on OCB-I and OCB-O were significant when PSM was low and nonsignificant when PSM was high.
21	Caillier, JG	2015	PUBLIC MANAGEMENT REVIEW	Towards A Better Understanding of Public Service Motivation and Mission Valence in Public Agencies	USA	Quantitative (survey)	913 out of 3,500 employees	PSM directly and positively affected extra role behaviors.

								<p>Mission valence partially mediated the relationship between PSM and extra-role behaviors.</p> <p>PSM also had a positive effect on extra-role behaviors through mission valence and job satisfaction. Simply put, PSM increased mission valence, which in turn increased job satisfaction, which in turn increased extra role behaviors.</p>
22	Koumenta, M	2015	PUBLIC MONEY & MANAGEMENT	Public service motivation and organizational citizenship	UK	Quantitative (survey)	A total of 517 employees	<p>PSM was highly associated with OCB. The relationship between the two variables was positive and significant, with PSM individuals being more likely to display OCB. This effect was strong even after the two key predictors of OCB (POS and fairness) were controlled for.</p>
23	Lazauskaite-Zabielske, J; Urbanaviciute, I; Bagdziuniene, D	2015	BALTIC JOURNAL OF MANAGEMENT	The role of prosocial and intrinsic motivation in employees' citizenship behaviour	Lithuania	Quantitative (survey)	Altogether, 884 white-collar employees from Lithuanian public sector organizations	<p>Prosocial and intrinsic motivations predicted OCB and its dimensions.</p> <p>Moreover, intrinsic motivation was found to moderate the relationship between prosocial motivation and OCB and four of its dimensions, namely intrinsic motivation strengthened the relationship between prosocial motivation and OCB and its dimensions of altruism, courtesy, conscientiousness, and initiative.</p>



								Civic virtue was predicted by prosocial and intrinsic motivation. However, their interaction effect was not observed.
24	Kroll, A; Vogel, D	2014	PUBLIC ADMINISTRATION	THE PSM-LEADERSHIP FIT: A MODEL OF PERFORMANCE INFORMATION USE	Germany	Quantitative (survey)	The response rate was 29.8% of 954	There was a positive direct effect of PSM on performance information use (extra-role behavior). The relationship between PSM and performance information use was significantly moderated by a supervisor's transformational leadership skills.
25	Ritz, A; Giauque, D; Varone, F; Anderfuhren- Biget, S	2014	REVIEW OF PUBLIC PERSONNEL ADMINISTRATION	From Leadership to Citizenship Behavior in Public Organizations When Values Matter	Switzerland	Quantitative (survey)	Sample of 569 public managers, and 3,754 out of 9,852 civil servants	Statistically significant and positive coefficients were found for the direct paths from PSM and goal clarity to OCB. Thus, the strongest links exist among PSM and OCB. The relationship between transformational leadership and OCB is mediated by PSM and goal clarity. In other words, transformational leadership has an indirect, positive effect on OCB through its influence on PSM.
26	Cun, XG	2012	CHINESE MANAGEMENT STUDIES	Public service motivation and job satisfaction, organizational citizenship behavior an empirical study based on the sample of employees in Guangzhou public sectors	China	Quantitative (survey)	148 out of 180 permanent full-time employees	PSM significantly influenced JS and OCB.

27	Pandey, SK; Wright, BE; Moynihan, DP	2008	INTERNATIONAL PUBLIC MANAGEMENT JOURNAL	Public service motivation and interpersonal citizenship behavior in public organizations: Testing a preliminary model	USA	Quantitative (survey)	173 employees working for a state personal agency	The authors found that PSM has a direct and positive effect on interpersonal citizenship behavior in public organizations, even when accounting for the significant role of co- worker support.  The indirect effect of PSM on ICB working through mission valence and organizational commitment was only partially supported.
28	Kim, S	2006	INTERNATIONAL JOURNAL OF MANPOWER	Public service motivation and organizational citizenship behavior in Korea	South Korea	Quantitative (survey)	1,739 out of 2,000 public employees	PSM is positively related to altruism and generalized compliance.
29	Kim, S	2004	JOURNAL OF PUBLIC ADMINISTRATION RESEARCH AND THEORY	Individual-level factors and organizational performance in government organizations	South Korea	Quantitative (survey)	1,739 out of 2,000 permanent full- time public employees	OCB is also positively correlated with PSM.