

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.388>

Exploring Interpersonal Power in Public Procurement Management: A Socio-Technical Approach

Mgr. Norvil Coronel Olano¹, Mario Enrique Vargas Sáenz²

Abstract

Public procurement (PP) represents on average 50% of the government budget. The phenomenon of interpersonal power impacts the efficiency of PP management. This study uses the theory of sociotechnical systems, the environment where PP processes develop, to explore the influence of interpersonal power on its management. Through an exploratory qualitative study, a conceptual theoretical model is formulated and validated that allows exploring the influence of interpersonal power in the management of PPs. The model proposes that interpersonal power influences decision-making, and these decisions influence the efficiency of PP management. Individual characteristics and organizational culture moderate the influence of interpersonal power on decision making. The research contributes to the theory of PPs, providing theoretical bases for the management and regulation of PPs considering the influence of interpersonal power. Finally, new routes are recommended for future research that allow deepening or expanding the study of interpersonal power in the management of PPs.

Keywords: *Interpersonal power, public procurement, organizational culture, individual characteristics, decision making, socio-technical systems.*

1. Introduction

Public procurement (PP) is relevant due to the Amount of resources that governments allocate to them, as well as the close and complex interaction between the public and private sectors. There is much debate and controversy regarding the general management of supply chains in the public sector (Harland et al., 2019). PPs are processes, that is, a sequence of actions, tasks that involve decision-making and a power dynamic between the participants. Problems that can arise in this process include perceived illegitimate conduct, fraud, corruption, and misuse or mismanagement of resources (waste) (Contraloría General de la República, 2023).

Previous studies point to an increase in research on PP, with different approaches (Anthony, 2014; Trammell et al., 2020), however, there seems to be little research on the aspect of interpersonal power and interrelationships in the decision-making process of public procurement, current research is oriented towards largely towards the strategic and quantitative nature, it also mainly considers the non-human aspects of PP operations (Al-Yahya, 2009; Reimann & Ketchen Jr., 2017; Siawsh et al., 2019). Power has been treated from different points of view and is considered a controversial concept (Haugaard, 2012), which may be a cause for the little research in the management of public procurement.

The focus on power at an interpersonal level determines the influence that is present in the

¹ Pontificia Universidad Católica del Perú, Email: neoronel@pucp.edu.pe, Orcid: 0000-0002-5936-3071

² Universidad EAFIT, Email: mvgargas@eafit.edu.co, Orcid: 0000-0002-1081-3190

managers of the PPs and is materialized through decision making (Siawsh et al., 2019). This reality observed in the management of the PP and the theoretical support allows us to propose interpersonal power and its influence on the efficiency of public procurement management as the phenomenon of study, and how strategies and mechanisms can be developed that minimize or mitigate its negative impact and strengthen the positive aspects in the PP process. With this objective we pose a question that will guide the research: How does interpersonal power influence the efficiency of public procurement management?

The authors have not found a study similar to the one proposed. Therefore, the study carried out by Siawsh et al., (2019), which explores the influence of power in the management of the humanitarian aid supply chain, is taken as a reference. This study incorporates the theory of interpersonal power proposed by Sturm & Antonakis, (2015). Based on this theoretical framework, a theoretical model is proposed that was validated through semi-structured interviews with PP experts, managers and academics. The proposal of this model is one of the most significant contributions of the study. Likewise, it contributes to the development of the theory of PPs (Koala & Steinfeld, 2018), with a theoretical foundation to be applied by PP managers, strengthening the professionalization and competencies of regulators and managers of PPs (Morón, 2018; OECD, 2023). Finally, new routes for future research are presented to deepen or expand the studies of power in PPs.

We organize this document into six main sections. First, we review the theoretical framework that supports the relationships and constructs of the theoretical model, for this we use previous studies that in a combined way theoretically support the initial model proposed. In the second section we detail the methodology, in the third section we present the theoretical proposal of the model and the study propositions. In the fourth session, in detail, we support the validation of the model, in the sixth section we discuss the main findings and finally present conclusions, as well as propose a future research agenda about power in PPs.

2. Theoretical Framework

2.1 Public Procurement (PP)

Public procurement (in this study purchase or contracting will be used interchangeably – some authors differentiate when it comes to goods or services) refers to “the acquisition through the contracting of goods, services or works by the government through of public sector entities (Hommen & Rolfstam, 2009). The PP as a percentage of the Gross Domestic Product (GDP) increased slightly, in the last decade, in the case of governments belonging to the Organization for Economic Cooperation and Development (OECD), from 11.8% of GDP in 2008 to 12.6% of GDP in 2019. COVID-19 (pandemic) led to an increase of more than 15% on average, in relation to GDP in 2020, basically in hiring related to the health sector (OECD, 2017a, 2021). In Peru, the PPs represent more than 50% of the public budget each year and around 12% of the GDP, higher percentages compared to Mexico, Brazil and Chile, countries in which the PPs represent around 30% of the public budget each year. year (OECD, 2017a), in the same way, in general in all countries, it increased during the pandemic, for purchases in the health sector.

2.2 Interpersonal Power

Definitions of power, in general, can be very confusing today because they have emerged from different schools of thought. Power is often described as the ability of an individual to prevail over the resistance of another, to achieve a desired result (Pfeffer & Salancik,

1978), with a tendency to view power from a zero-sum point of view, some researchers approached power as a property of agents; individual or collective, entities such as companies, governments or politicians (Dahl, 1957; Simon, 1952; Weber & Pliskin, 1996). Others argued that power is a property of systems or structures (S. R. Clegg et al., 2006) where power designates relationships between subjects that are part of a society or group (Foucault, 1982), and some stated that power is omnipresent and obscure, and, therefore, could not be measured (Lukes, 2005). Power is also seen as a necessary conflict that involves the clash of interests or plans; What one wins, another loses (Dahl, 1957; Lukes, 2005; Weber & Pliskin, 1996).

Therefore, power is a highly controversial concept (Haugaard, 2012) that has given rise to different definitions, perspectives and conceptualizations. Power literature is problematic, evasive and subjective and is a term that is vague, ill-defined and difficult to describe clearly. (Ramsay, 1996).

On the other hand, power is seen positively and seen as the ability to influence people to work together and achieve objectives that could not be achieved individually (Barnes, 2015), which will be a main assumption in this research. French & Raven, (1959) They identified five bases of power: legitimate, coercive, reward, expert and referent.

The definition of power, for this research, we will use the one proposed by Sturm & Antonakis, (2015), "Power is having the discretion and the means to asymmetrically impose one's will on entities proposed by Sturm & Antonakis, (2015). The term "entity" can be applied at various levels of analysis (namely, at the individual, group, organizational, cultural, country and even global levels) (Sturm & Antonakis, 2015). Because interpersonal power is of interest to this research, we will take the most precise definition that these same authors propose: "Power is having the discretion and the means to asymmetrically impose one's will on others." (Sturm & Antonakis, 2015).

Discretion refers to the freedom of action available to power holders, and the means through which this discretion operates may include charisma, incentives, experience, punishment, etc. Whatever you want, it has to do with the regulation or control of aspects of the environment, including others. In this definition, therefore, there are three essential characteristics: power consists in having (a) *discretion* (agency) to act and (b) the *means* (innate, position) to (c) *do fulfill* one's will. That is, a powerful agent is one that can exogenously affect its environment or others at will (Sturm & Antonakis, 2015).

2.3 Decision Making in The Management of PPS

The amount of resources and the social and technical interaction that is generated, between the private and public sectors, in the management of the PPs, challenge the regulators, managers and decision makers of public procurement, as they are challenged to develop in new flexible structures and processes that delegate purchasing responsibility, but maintain accountability and control; limit the opportunity for fraud or mismanagement while reducing operational restrictions; increase economic efficiency while meeting the political demands for participation of MSEs, minorities and women (social responsibility); Increasing open and transparent competition while achieving best value, and applying best management practices while facing legal limitations (McCue et al., 2015), these demands on PP managers and decision makers demonstrate how complex PP management is.

2.4 Efficiency in The Management of Public Procurement

Previous studies on the efficiency of PPs have varied approaches and indicators, depending on the objectives and context, such is the case of the methodology for the evaluation of public procurement systems proposed by the OECD, in which four pillars are established. evaluation with 14 indicators and 55 sub-indicators, (OECD, 2016)but it does not adapt to the objective of this study.

According to Milosavljević et al., (2019)efficiency, it can be measured objectively and that is logical and understandable to have an adequate perception of the management of the PP. Initially, we will use this proposal for our study objective, however, through the qualitative stage we will validate these parameters. The model proposes Milosavljević et al., (2019)six indicators: A bidder, without call for offers, aggregation, award criteria, speed of decision, quality of reports.

2.5 Individual Characteristics

Previous studies in the Peruvian reality indicate that personal and organizational characteristics under the SST approach have an influence on work performance, as well as work interactions (Salas & Glickman, 1990). Empirical studies suggest that individual and job characteristics influence performance, satisfaction, and work interactions present in an organization (Gómez García et al., 2018). Technology adoption also has a personal component (Purani et al., 2019). Likewise, gender influences behavior, attitudes and labor relations (Lawless et al., 2019). The SST model approach, although it can be applied to all types of organizations, it is necessary to take into account individual and organizational characteristics (Orton & Weick, 1990). The current context requires taking into account the changing and particular organizational structures for each case, such as hierarchical structures, type of organization, personal characteristics such as age, sex, experience, hierarchical location (position), level of education and the function it performs (Pasmore et al., 2019).

The literature suggests that the traits or dispositions that a person possesses can influence how they react to the possession of power. Studies suggest that the individual “changes” when faced with the ostentation of power and that these individual characteristics, known as moral identity, can define behavior or actions, altruistically or selfishly, and that are manifested through the actions of the exercise. power (Sturm & Antonakis, 2015).

In this context, the theory suggests that individual characteristics influence decision making in the public procurement process, an influence that acts as a moderation of the interpersonal power present in the interactions that occur in a socio-technical system present in the management of the PPs.

2.6 The Organizational Culture

Organizational culture can be defined as what is typical of the organization, the habits, predominant attitudes and patterns of accepted and expected behavior (Glaser et al., 1987), who identified four main elements of organizational culture, based on both management research and communication: teamwork, work environment, participation and managerial supervision (Glaser et al., 1987). Organizational culture has been related to a series of organizational outcomes and functions (Akin & Hopelain, 1986) such as productivity (Akin & Hopelain, 1986), strategic planning and policy implementation, recruitment and selection, socialization, and innovation in new product development. (Schein, 1985).

Theories of organizational culture emphasize the role of cultural values and norms and match the internal characteristics of the organization (strategy, structure, systems and practices) with

key external characteristics (national culture, history and political institutions) (Al-Yahya, 2009). The empirical results suggest a significant positive relationship between cultural background and work productivity. The main channels of this positive impact are the control environment and work ethic, while obedience has a negative impact on productivity (Bakas et al., 2019).

According to Sturm y Antonakis, (2015) the organizational culture, regarding interpersonal power, it acts as a moderator, according to the literature, in a social context there is the nature of moral risk, which occurs when agents who possess power act for their own benefit and to the detriment of others. the rest. Another appreciated behavior is that, although powerful people tend to act in a self-centered manner, this behavior is softened when adequate transparency and accountability mechanisms are in place (Al-Yahya, 2009).

The literature suggests that transparency and accountability moderate the exercise of power as part of social control (Al-Yahya, 2009; Sturm & Antonakis, 2015), in the case of public institutions although there is popular election or as positions of trust for managers or decision makers in the institutions. PP, accountability is essential for management to be technical and to meet the objective of improving the well-being of citizens (OECD, 2016, 2023b).

Empirical studies suggest that the culture of hierarchy and bureaucracy are determinants of decision-making in supply chains in the public and private sectors (Liu et al., 2015; OECD, 2023a; Wang et al., 2020).

In this context, organizational culture moderates the influence of interpersonal power on the decision-making of PPs.

2.7 The Theory of Socio-Technical Systems (STS)

The pioneering work of Eric Trist and a group of social scientists, who formed the Tavistock Institution of Human Relations in London after the Second World War, laid the foundation for the theory and design of Socio-Technical Systems. STS) (Trist & Bamforth, 1951).

Social systems are made up of structures and people, and technical systems consist of technology and tasks (Bostrom & Heinen, 1977). SSTs can have flexible behavior that allows the integration of these four variables when optimization is sought (Trist & Bamforth, 1951). The SST approach also helps to identify those areas that are related to the operational and organizational aspects of a system regardless of size (Trist & Bamforth, 1951). De Bruijn & Herder, (2009) described SST as "systems that involve complex technical, physical systems and networks of interdependent actors" (de Bruijn & Herder, 2009). The significant contribution made by this framework is that system behavior can be analyzed and improved by considering social and technical systems and their interdependencies (Ottens et al., 2006). In other words, the structure and behavior of social and technical systems give rise to the overall behavior of socio-technical systems.

Organizations can therefore be seen as a set of interdependent actors with different processes and practices within a large system that incorporates social and technical systems (Bostrom & Heinen, 1977). Management information systems (Management Information Systems - MIS) and in general Information and Communication Technologies (ICTs) have a direct influence on the social and technical components of the system (Bostrom & Heinen, 1977). Generally, ICT complications and failures uncover organizational behavior problems that involve components of the social system, which represent human behavior. Therefore, SST can provide an accurate interpretation of organizations (Bostrom & Heinen, 1977).

When a technical-social system is investigated, the results of the system are recognized when

the interaction between the two systems occurs (Bostrom & Heinen, 1977). Hester, (2014) argued that these interactions describe the relationships between two given components and produce six distinct relationships: actor structure, actor task, actor technology, task technology, task structure, and technology structure. To a large extent, the social system pays special attention to the attributes of actors, including the attitudes, skills and values, and the relationships between actors and the authority structures required to perform a task, and it is in this task that they find the power relations that we can observe (Sahay et al., 2009; Weber & Pliskin, 1996).

The entities in charge of carrying out public procurement can typically be seen in terms of the socio-technical system (Trist et al., 1963). From one perspective, public procurement is a network of complex, coordinated and integrated processes, collaborative relationships and leadership clearly in an organization and with the increasingly frequent use of technology for management (Baldus & Hatton, 2019; Uyarra et al., 2020).

Decision making in public procurement, as in any social network, takes advantage of the characteristics of the physical components in the supply chain (Meehan et al., 2016). As a result, a successful supply chain is the result of the behavior of social and physical networks and the interactions between these networks (Zülch, Gert & Börkircher, 2012). Therefore, the use of SST highlights the opportunity to explain the complexity of power relations from a decision-making perspective in PPs (Siawsh et al., 2019).

However, despite the successful applications of SST theory, criticisms have been made of this theory, because humans and organizations are much more complex than this theory implies. Such criticisms are particularly relevant in the context of changing organizational structures, from stable hierarchical structures to loosely linked arrangements (Orton & Weick, 1990).

3. Conceptual Model and Research Propositions

With the purpose of ordering and following a *loggia* in the development of the concepts developed in the theoretical framework, Figure 1 represents the conceptual model that graphically summarizes the influence of interpersonal power in decision making as part of the management of the PP, which can be summarized in the influence of interpersonal power (Sturm & Antonakis, 2015), in decision making, and this in turn in the efficiency of public procurement management (Milosavljević et al., 2019; OECD, 2023). Interpersonal power that is moderated by organizational culture and individual characteristics (Sturm & Antonakis, 2015). Since PP is an interaction or network between actors (people) in a social environment and technical processes, for the analysis we use the approach developed by Trist & Bamforth, (1951), known as Socio-Technical Systems Theory (SST).

The model proposed by (Siawsh et al., 2019), which is taken as a reference, uses the SST approach, concluding that it is ideal for observing the influence of power, analyzing the complex and dynamic relationships between actors, tasks and technology, because it addresses the organizational environments in which requires people to accomplish a task to achieve desired results (Bostrom & Heinen, 1977; Griffith & Dougherty, 2001), therefore interdependent social and technical subsystems must work together to accomplish a task efficiently and effectively (Siawsh et al., 2019). This highlights the social and technical factors intertwined in the way people work in PP management.

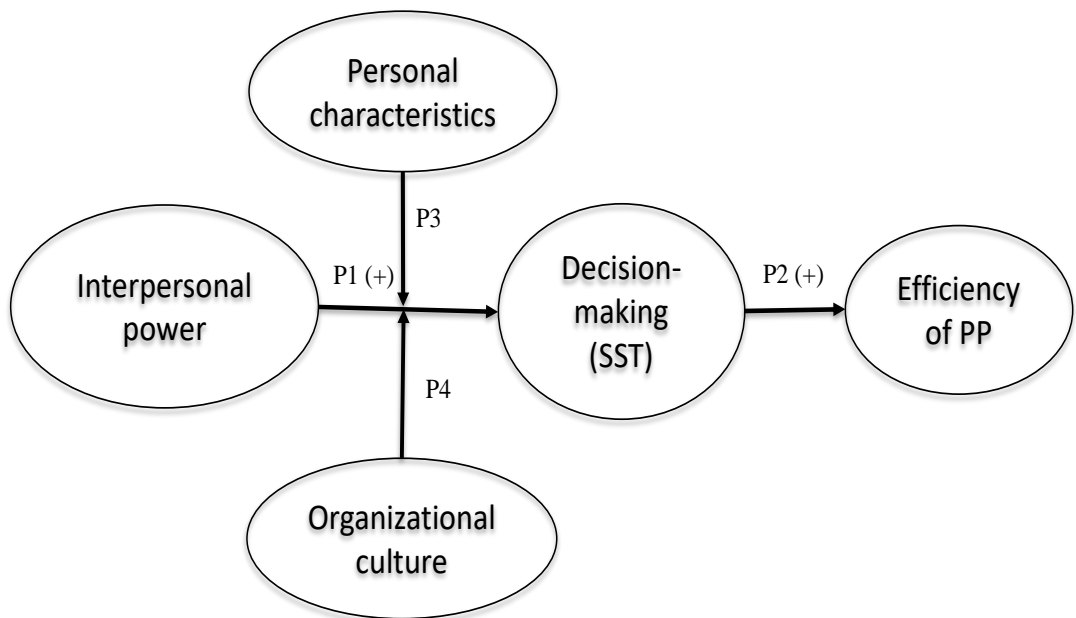


Figure 1: Model of the Influence of Interpersonal Power Proposed Based on a Theoretical Framework.

Note: Circles Correspond to Latent Variables.

According to the sequence and review of the literature, the main relationships that support the model are proposed and that in the logical sequence that is described as follows:

P1: Interpersonal power influences the decision-making process of PP management.

P2: Decision making influences the efficiency of PP management.

P3: Personal characteristics moderate the influence of interpersonal power on decision-making in PP management.

P4: Organizational culture moderates the influence of interpersonal power on decision-making in PP management.

4. Methodology

The study design has a qualitative approach (Creswell & Creswell, 2023; Hernández-Sampieri & Mendoza, 2018), it begins with a review of the literature in order to support the study model, it is not intended to carry out a systematic literature review, because the purpose is to support constructs and not necessarily see progress and gaps in The literature, in addition to being a holistic vision on the topic of PP management influenced by interpersonal power, is specific to a specific topic, which is PP. The validation of the model is carried out through semi-structured surveys to PP experts, managers and academics; the ATLAS ti 23 software was used for the analysis.

4.1. Characterization of Participants and Instrument Design

It was proposed to obtain the opinion of experts, academics and managers of the PPs, who were selected according to each construct (Creswell & Creswell, 2023). Three categories of participants were considered and are summarized in Table 1.

Table 1: Selection Criteria by Categories of Participants.

Category	Selection criteria
Managers	t) Heads of Public Entities
	b) Responsible for the Bodies in Charge of Contracting
Experts	t) Arbitrator on contracting issues
	b) Member of the State Contracting Court
	c) PP Consultants
Academics	t) Teacher in PP topics
	b) Professor in Public Management at recognized Universities

Note. The Criteria Used are not Exclusive and were not Required to be Simultaneous.

It should be noted that, although it can be differentiated into these three categories, there are professionals who can be in more than one category, so these characteristics contribute better to the purpose of the study, with contributions from management experience, academia and experts. in the matter of PP. Convenience sampling was used to select the participants in the study in all categories (Williamson, 2018), considering that the study did not seek statistical generalization, but rather validation of the constructs of the theoretical model proposed, the sample size was not important from a probabilistic perspective (Onwuegbuzie & Collins, 2015). However, it was ensured that each construct and relationship in the model were validated (Hernández-Sampieri & Mendoza, 2018). Considering this, 7 interviews were carried out with 221 minutes of recordings. The names are being kept confidential; however, the profiles of the study participants appear in Table 2.

Table 2: Interviewee Profiles.

No.	Gender	Category	Profession	Experience
1	Female	Academic and Manager	Lawyer	Former Minister of State in two sectors
2	Female	Academic and Manager	Lawyer	Former Executive President of the National Civil Service Authority - SERVIR
3	Male	Expert, Academic and Manager	Lawyer	Member of the OSCE State Contracting Tribunal
4	Male	Expert, Academic and Manager	Counter	Public Manager - Logistics
5	Male	Expert, Academic and Manager	Lawyer	Logistics Manager and Advisor on PP issues
6	Male	Expert and Manager	Administrator	General Manager of Migrations, Public Manager - Logistics
7	Male	Expert and Manager	Administrative Engineer	Public Manager - Logistics

Note. In the Text, Reference will be Made to the Number, to Refer to the Respondents.

Of the interviewees, three meet the three profiles, that is, they are experts in PP, academics because they teach in PP and are also managers in charge of the bodies in charge of contracting; two have the profiles of PP expert and manager and the other two are academics and PP managers, which indicates knowledge and experience on the subject.

From the review of the experience and training, it can be stated that due to the quality of the professionals participating in the study, based on the detailed profiles, knowledge, experience

and academic aspects, all closely linked to the management of the PPs, it makes that the opinions and perceptions collected are valuable for achieving the objectives of the study. As presented below, the seven interviews carried out were sufficient to achieve validation of the model with each of the proposed constructs.

4.2. Coding and Content Analysis

The procedure applied for the qualitative analysis of the data began with a content analysis, from which the deductive axial coding procedure is proposed and concludes with the description of the procedure for analyzing related recurring patterns, with which achieves the validation of the proposed model, the constructs, variables and dimensions the “Intentional AI Coding” was used for this available in ATLAS ti 23, reviewed by the researchers.

The second cycle coding followed a logic of axial coding, a mixture of objective coding and focused coding, since it sought to order and include the codes in some of the categories or dimensions previously defined in the theoretical framework (Saldana, 2015). In this way, codes that were redundant were identified, in order to facilitate the analysis of recurring patterns and co-occurrences (Miles et al., 2014).

5. Validating the Constructs and the Conceptual Model

5.1. The Interpersonal Power Construct

The definition adopted for this research is the one proposed by Sturm & Antonakis, (2015), who define interpersonal power as Power is having the discretion and the means to asymmetrically impose one's will on others.”.

In the context of the PP, we can differentiate that the (a) discretion (agency) to act, this must be understood within the public procurement regulations and the discretion that it provides. However, the vast majority of literature refers to actions outside the regulatory framework (corruption) and it is believed that interpersonal power is greater (Grossi & Pianezzi, 2018; Morales Inga & Morales, 2023; Procuraduría Pública, 2021). (b) the means (innate, position), that is, those who have legitimate power, such as the Heads, heads of entities and those responsible for the bodies in charge of contracting in public entities (Baldus & Hatton, 2019; Stefano et al., 2017), experts and references in contracting, those who can use reward or threat (coercion) (Ahmad et al., 2023; Hofmann et al., 2017), to (c) enforce their will, this is manifested in decision-making within the management of the PP through taking care of the suitability of those responsible for conducting hiring, the coherence of the selection criteria and the speed of decision-making, which are the dimensions that we will develop later (Abas et al., 2023; He et al., 2023).

In the interviews, all interviewees agree with the influence of power in the management of the PPs, interviewees 1 and 2 highlight the importance of the human factor as fundamental for the PPs to be more efficient:

“Entonces el elemento humano, para mí, sigue siendo el más importante, los primeros indicadores tienen que estar asociados al poder, que una organización le dé las condiciones habilitantes a las personas para poder hacer su trabajo” (Entrevistado 1).

Likewise, they also consider that interpersonal power has to be evaluated in a given context, together with organizational culture and individual characteristics, as key factors in decision-making to achieve efficiency in public procurement. Furthermore, it highlights that experience

and specialization are fundamental elements to guarantee efficiency in these processes (Interviewees 2, 4, 6 and 7).

The dimensions of interpersonal power are recognized, highlighting legitimate and expert power (interviewees 1, 3 and 5), this is because it is easily differentiated by the structures of public entities, as well as the specialization and certification required to work in the body in charge of contracting (OECD, 2017b). However, the dimensions of coercive power and reward are understood more as the way of exercising power and that is present in the PP (interviewees 2, 4 and 7). Regarding referent power, they consider that it is less present, basically due to the rigidity of the rules and control or supervision (interviewees 3, 5 and 7).

En resumen, el constructo poder interpersonal, está presente en las PP, poder que pueden hacer más eficientes, debiéndose considerar factores propios del individuo, es decir, las características individuales (todos los entrevistados), resaltando la especialización y el conocimiento (entrevistados 1, 5 y 7), así como el contexto y las normas, para nuestro modelo recogido en la cultura jerárquica y burocrática (entrevistados 1, 3 y 6).

5.2. The Decision Making Construct

Decision-making in the PPs is present in the three phases through which the public procurement processes go (preparatory acts, selection procedure and contractual execution), the decisions must be within the regulatory framework that regulates the PPs. Therefore, decisions must be framed within the discretion that the norm establishes (Contraloría General de la República, 2023; OECD, 2017b; Procuraduría Pública, 2021). Make decisions in a context in which regulations, interests (politicians, suppliers and managers), as well as the demands of the population converge so that their demands are met. They describe this complexity McCue et al., (2015) as the challenges to which PP managers are subjected. An interviewee summarizes this context and a quality of the PP managers, such as “maturity” to make decisions and emphasizes that the human factor is a key factor.

”So I think there are contextual conditions, which also influence, and there again the person has to have a lot of maturity, they have to have a lot of capacity and that is why the most important thing is to invest in human resources. (interviewee 1)

In the construct of “decision making” in the management of the PP, three variables are highlighted that stand out for all the interviewees, the first and on which the interviewees agree, refers to the human factor, that is, to those who intervene in the management of the PPs. Taking into account that the regulations indicate discretion to designate those responsible for conducting the PPs (OECD, 2017b). Therefore, the main decision is related to the “Suitability of those responsible for conducting public procurement.”

El primero para una buena contratación pública es tener buenas personas. Porque las contrataciones públicas no las hacen, las máquinas, las hacen las personas. Entonces, los procesos de selección de personal son procesos en los que el estado no invierte suficiente tiempo ni suficientes recursos, ni le pone la verdadera importancia que tiene esa, es para mí la base más importante de toda organización pública o privada y es urgente”. (Entrevistado 1)

Suitability is related, therefore, to the profile that those responsible for the PPs must meet. In the Peruvian case, Law No. 31419 has been published, “Law that establishes provisions to guarantee suitability in the access and exercise of public office.” of officials and directors of free appointment and removal”, which establishes the minimum profiles for officials and directors of free removal (positions of trust), within which are those responsible in charge of

the management of the PPs in the entities. Additionally, Law No. 30225, State Contracting Law, establishes as a requirement to work in the management of the PPs, being certified for this purpose³.

The second dimension that stands out is related to the selection of suppliers, with the selection criteria being primary (interviewees 3, 5 and 7), this would guarantee the best use of resources and will have an impact on the efficiency of the PPs, which We define it as “Consistency in the determination of the selection criteria”, which is also within the margin of discretion allowed by the contracting regulations and is highlighted in the studies in this regard (Grandia & Meehan, 2017; OECD, 2017b; Patrucco et al., 2019; Roehrich, 2014; Thanh Tran et al., 2018).

The third dimension is related to a quality of the hiring manager that the literature defines as “speed in decision-making” (Abas et al., 2023; Al-yahya, 2009; Bachrach & Baratz, 1963; Filiz & Battaglio, 2017; He et al., 2023; Siawsh et al., 2019) and which is confirmed by the majority of interviewees (1, 4,5,6 and 7). Interviewee 7 identifies it as “sense of urgency” in the following way:

“Look, according to individual characteristics and organizational culture as factors that affect power, I think there is a very important issue here, which is the sense of urgency that the person has, how they face that sense of urgency.” (interviewee 7)

This aspect is also considered as the opportunity in which I must make the decision, that is, speed, does not mean making the decision as quickly as possible, but at the appropriate opportunity, like every decision takes time for analysis and review of the Regulatory framework.

La oportunidad, ese, es el otro tema que también es muy importante” (entrevistado 1).

Yo creo que la oportunidad es el elemento más importante en ese aspecto.

Because all hiring will respond to an objective and it is the urgency or the purpose of achieving it at an established time” (interviewee 4)

Considero, que se puede tener una eficiencia, en el sentido, de que quienes ejercen poder, o sea que mayormente son los gestores y jefes, que pueden tratar de ver la oportunidad de la decisión para atender una necesidad” (entrevistado 6).

In summary, the decision-making construct was validated, which can be defined as the process through which government entities (PP managers) decide how to carry out the acquisition processes of goods, services and works, seeking to maximize public value. (efficiency) within the current legal framework (He et al., 2023). In decision making we can identify and validate three main dimensions in PP issues, “Suitability of those responsible for conducting public procurement”, “Consistency in determining selection criteria” and “Speed in decision making.

5.3. The Efficiency Construct

According to the literature, the efficiency of the PPs has several approaches, such as public value or lower price (Erridge, 2007), timely compliance with the services contracted through the PPs (McCue et al., 2015). Other studies propose indicators of calculations and complexity that do not support the purpose of the study's objective (OECD, 2016; Rogulenko et al., 2023). For our case, the way Milosavljević et al., (2019) they propose to measure the efficiency of PP was considered more appropriate, which includes 6 indicators, namely, i) a bidder, ii) without a call for offers, iii) aggregation, iv) award criteria, v) speed of decision and vi) quality of the

³Directive No. 002-2020-OSCE/ CD Certification of professionals and technicians who work in the body in charge of contracting entities”

reports, a study that was carried out in a reality different from Peru. These indicators were put to the consideration of the respondents in order to determine which ones they consider most relevant to the Peruvian context.

In the opinion of those interviewed, they consider that the efficiency of the PPs should be the objective of the PPs, for This Certain Indicators must be observed such as compliance with benefits, an aspect in which all interviewees agree, considering that if a benefit is not met in the timely manner and under the agreed conditions, the PP ends up being inefficient.

Yo creo que en este aspecto. De la forma de medir la eficiencia sería, por la oportunidad ya llega de manera posterior, y el impacto que causa ya no es el mismo tampoco” (entrevistado 4).

Creo que el indicador sería, verificar si con las contrataciones que desarrolle, se Atendió una necesidad, en cuanto al objeto, en cuanto a lo que estoy requiriendo. ¿llegó en la oportunidad debida? (entrevistado 3).

Para mí el indicador principal es cumplir el objetivo de la de la adquisición” (entrevistado 7).

In this way, the interviewees, with the exception of number 2, consider compliance with the provision as a dimension of the efficiency of the PPs, this is consistent with the main objective of public procurement set out by the OECD, establishing that the PPs must adopt good practices that reduce costs, streamline processes and ensure transparency, while meeting needs (OECD, 2017a).

Another dimension that the interviewees highlight is related to planning, this planning must be reflected in the Annual Contracting Plan (PAC), in which the type of process must be determined as well as the opportunity of the call, the fact is highlighted. of adequately grouping or consolidating the selection processes, thereby optimizing the use of (human) resources, in carrying out said procedures and optimizing deadlines, at the same time generating economies of scale, transparency (through the publication of the PAC) and the calls in public and non-fractional processes (Contraloría General de la República, 2023)(interviewees 3,4,5,6 and 7).

para que la compra sea eficiente, yo pienso que tiene dos caminos principales, uno es la planificación, una buena planificación, o sea, mejor dicho, un buen análisis de tu cuadro de necesidades, que al final va a ser resultado en un plan de compras” (entrevistado 6).

The third dimension identified and highlighted for this efficiency construct refers to the participation of suppliers, which is actually a result of convening processes open to the participation of suppliers (except for the exceptions that the standard contemplates), with objective and consistent with the purpose of the call without making participation more difficult, but ensuring compliance with the proposed objectives, with greater participation of bidders competition is generated and, therefore, better price and quality conditions that result in the best use of public resources (Milosavljević et al., 2019; OECD, 2016; Rogulenko et al., 2023; Wang et al., 2020).

generar mayores alternativas, propicia que el estado pueda elegir a la que sea más conveniente” (entrevistado 3).

Entonces, lo que yo sí creo que en la eficiencia al final se ve el resultado y ahí sí me podría decir también, producto de la gama de proveedores, salió un proveedor, pero el proveedor Bueno” (entrevistado 5).

In summary, the efficiency of the PPs implies the optimization of government purchasing processes to reduce times, obtain economies of scale, use resources responsibly, generate

competition between suppliers, increase transparency, all with the purpose of meeting the needs of timely manner and in The conditions raised, three main dimensions can be distinguished, which are i) compliance with the provision, ii) consolidation of purchases and iii) more than one bidder, the latter allowing competition and optimizing the use of public resources (Milosavljević et al., 2019; OECD, 2014, 2016, 2017b, 2017a; Rogulenko et al., 2023; Wang et al., 2020).

5.4. The Organizational Culture Construct

Public management, and especially the PPs, are developed in a context that is characterized by complex systems that involve social and technical relations (C. W. Clegg, 2000; Pasmore et al., 2019; Siawsh et al., 2019), within a regulatory framework (OECD, 2016), so the culture that characterizes the development of the PPs is the culture bureaucratic, which refers to the regulatory framework that regulates the actions in the management of the PPs and the hierarchical culture, in which the structure that the entity has is clearly understood (Bovis, 2020; Tas, 2020).

In a PP context, therefore, governments in general regulate procedures and tend to have a marked hierarchical and bureaucratic character, privileging the formalization of procedures, as described by the interviewees. The centralization of decisions and the standardization of processes, indicating the hierarchies within the institutions.

Que tenga un superior jerárquico, cómo se va a ir influenciando la cultura organizacional, entonces hay instituciones que tienen culturas organizacionales fuertemente construidas, digamos maduras Entonces se pueden generar protocolos, una organización madura para mí es una organización que ha podido avanzar en la generación de protocolos (entrevistado 1).

Yo creo que la regulación no es suficiente, pero nuestra cultura burocrática está pensada para ello (entrevistado 3).

“Look, according to individual characteristics and organizational culture as factors that affect power (interviewee 7).

From the triangulation of the responses, it is validated that the organizational culture in contracting management is characterized by being hierarchical and bureaucratic, as the dimensions that are emphasized by the interviewees.

5.5. The Construct Individual Characteristics

Previous studies consider it as the most important factor to meet the objectives of the PP (OECD, 2016). Empirical studies suggest that individual characteristics have an influence on performance, satisfaction, and work interactions in an organization (Gómez García et al., 2018). According to Purani et al., (2019), the adoption of technology also has a personal component. Likewise, gender has a significant impact on behavior, attitudes and work relationships (Lawless et al., 2019).

Those interviewed in the qualitative study agree that it is the people who make the decisions, carry out the tasks and make the PPs efficient or inefficient. However, of all the characteristics that stand out are professionalization or technical knowledge, attitudes and skills in general.

In order to focus on the objective of the research, two more objective characteristics were defined to determine how they are sex (in this research we will refer interchangeably to sex or gender to refer to man or woman) and technical knowledge about PP. , which in the Peruvian

case, the certification level was used, which are classified into three levels, basic, intermediate and advanced. The other aspects, such as leadership and ethics, will be considered as alternatives for future research .

Skills and technical knowledge related to public procurement management and the specific area in which contracting is carried out can influence the ability to exercise interpersonal power effectively (interviewees 2, 4 and 7).

Regarding gender, interviewees 1, 3 and 7 suggest that women would be less likely to make impulsive decisions. Furthermore, they believe that age can be a relevant characteristic in the Peruvian context. In general, all those interviewed state that the personal characteristics of those who exercise power can influence decision-making and the selection of selection committees, as well as as in the formulation of supplier evaluation criteria.

Interviewees 1, 3 and 5 emphasize that the basis for improving public procurement is the human factor and the regulatory context, since regulating it too much can be restrictive and removing regulation can generate abuses. Experience and specialization in public procurement are important variables in decision making.

Attitudinal aspects such as communication skills, including the ability to listen, express oneself clearly and adapt to different situations, can influence your ability to exercise interpersonal power effectively, highlights interviewee 1. Leadership styles are also considered to influence interpersonal power.

Finally, they highlight ethical and transparent behavior as characteristics that should be privileged in PP managers (interviewee 1, 3 and 7)

In summary, individual characteristics affect interpersonal power, being very varied and will depend on the objective of the study, treating them separately, otherwise it may divert attention from the study. In this sense, objective individual characteristics have been chosen such as professionalization (OECD, 2023a), which in our case is defined as certification level, and sex, differentiating between men and women (CEPAL, 2017).

5.6. Structural Relationships

Conforme a la revisión anterior, los constructos de “toma de decisiones”, “características personales”, la “cultura organizacional” y el “poder interpersonal” se comportan como variables exógenas y la “eficiencia de las PP” como una variable endógena. Respondiendo a la pregunta general que ha guiado este estudio es que existen influencia del poder interpersonal en la gestión de las PP.

To this end, the theoretical model that examines the influence of interpersonal power in the decision-making process in the context of public procurement management was proposed and validated. Decision making is postulated as a mediating variable between interpersonal power and the efficiency of public procurement. Likewise, the moderating effect of organizational culture and individual characteristics in this relationship is considered.

Based on these results, these relationships are confirmed, together with the theoretical framework and the analysis of co-occurrences that appears, according to Figure 2, so the propositions are finally validated and the hypotheses that would be the object of contrast are proposed in a supported manner. a quantitative phase as a complementary part of the present study.

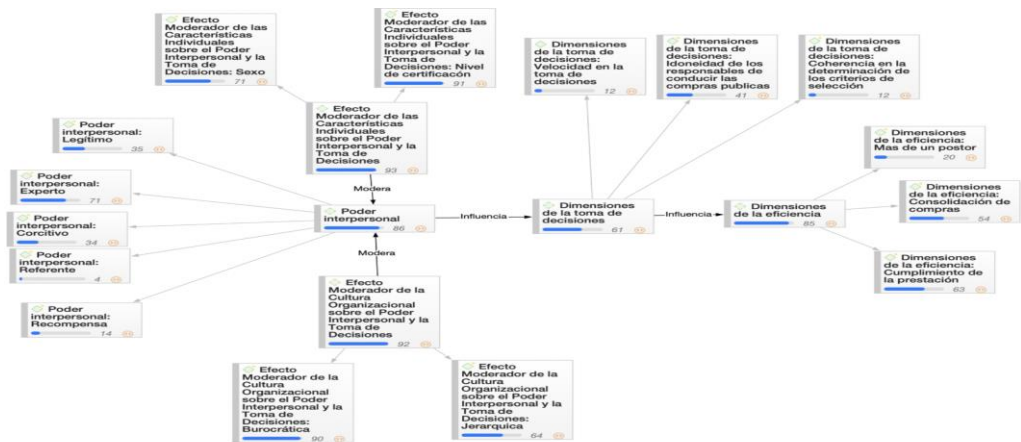


Figure 3: Validation of the Proposed Theoretical Model and Definition of the Dimensions of the Latent Variables.

Note. Prepared through ATLAS.ti 23 Software.

6. Discussion

Through the interpretation of an exploratory qualitative method design, we examined the findings. The qualitative results were analyzed, with or which was validated in a silver theoretical model, and the research hypotheses, which are proposed to be tested empirically through a quantitative study. (Creswell & Creswell, 2023; Hernández-Sampieri & Mendoza, 2018)

5.1 The Context where PPS are Developed

The literature on public procurement management maintains that it is necessary to complement the traditional technical-economic approaches, predominant in the field, also incorporating the multiple social dimensions that affect organizational behavior in practice. (Borrás & Edler, 2020; Davies et al., 2017). Responding to this, this research has adopted a sociotechnical systems analytical framework.

The sociotechnical systems (SST) approach applied in in-depth semi-structured interviews allowed us to identify interpersonal power, a very controversial concept (Hauggaard, 2012), in rigid and bureaucratic contexts such as public administration, thus validating the proposed theoretical model. to collect situational aspects such as personnel turnover, institutional cultural differences and socio-technical inertia linked to legacies of non-integrated systems; they effectively shape interactions and outcomes in areas of public procurement. Likewise, it is worth noting that five of the interviewees stated that adaptability to digital tools varies according to generational cohorts within the public administration, specifically in the PPs.

The study reveals moderations between social and administrative decisions, reaffirming the usefulness of the sociotechnical approach adopted to analytically examine specific units in which phenomena materialize, interpersonal power, ethics, corruption, transparency, decision making or resistance to technological change, among others. others, that is, the approach can be used to increase the range of research possibilities in this and other social fields.

socio-technical points of intersection with detailed internal studies from organizational sciences is thus emphasized; to later transform that knowledge into pragmatic improvements in applied

public policy. All this aimed at managing procurement in an optimal and efficient manner, making the best use of public resources, at the same time meeting the needs of the citizen.

5.2 Influence of Interpersonal Power in Decision Making in the Management of Public Procurement

The results of the research demonstrate that interpersonal power does influence decision-making, in the management of public procurement, exploratory studies in other contexts revealed this relationship (Siawsh et al., 2019). It is confirmed through practical examples from the interviewees, showing that it is the server who participates in the PP, who makes the decisions and that can be affected by interpersonal power, highlighting expert and legitimate power as those that are manifested to a greater extent.

Demonstrating that interpersonal power is present in decision-making as part of PP management. However, it is necessary to take into account the context in which the PPs are developed, determined by the organizational culture of the entity and the individual characteristics of those who participate in the management of the PPs, a context that moderates this influence.

5.3 Decision making as a Mediating Variable between Interpersonal Power and PP Efficiency

The influence of interpersonal power does not directly impact the efficiency of PP management, but is manifested through decision making, that is, decision making is a mediating variable between interpersonal power and efficiency. of the PPs (Abas et al., 2023; Siawsh et al., 2019).

The qualitative results demonstrate that decision-making indeed influences the efficiency of the PPs, that is, it depends on the type of decisions that are made so that the PPs are more or less efficient. In the same vein that decisions are made by people, decisions such as who is appointed to be in charge of the PPs or participates as a member of the selection committees, another important decision is to determine the selection criteria, with which They are going to choose a supplier to carry out the contracted services, that is, this decision depends on whether the selection criteria are objective, consistent with the contracting objective and that greater participation of bidders is achieved and the possibility of selecting the best or proposed ones. non-objective criteria that are not consistent with the services required and end in poor execution or worse yet, that these criteria are biased and generate a favor or detriment to some type of supplier (Contraloría General de la República, 2023).

Another important decision is the speed with which decisions are made, understanding that adequate speed is the opportunity with which they are made (Filiz & Battaglio, 2017), in no way does it refer to a decision-making in the shortest possible time, because it may not have all the elements. of judgment in this decision or worse yet, without any support or in an erroneous manner, therefore, the speed (opportunity) of taking decisions is related to the sense of urgency that was highlighted and which is a quality that the managers of The PPs must develop or enhance it.

In conclusion, the influence of interpersonal power does not directly impact the efficiency of public procurement management. Rather, this effect is manifested through its impact on the making of key decisions in the management of the PPs. That is, the latter operates as a mediating variable between interpersonal power and the efficiency of the PP.

5.4 Gender as a Moderator of Interpersonal Power in the Management of PPS

Previous studies, which supported the proposal of the silver theoretical model, suggested a moderation of the female gender in the relationship between the power of interpersonal influence of officials and decision-making in the context of public contracting (Cooperación española, 2023; Lawless et al., 2019; Mata et al., 2022; Parnell, 2013). However, in the interviews carried out with managers, experts and academics during the qualitative phase of the research, there was a disparity of opinions in this regard, indicating that it was conditioned by other variables such as the level of knowledge about PP management.

In summary, the present mixed methods study confirmed the moderation proposition, pointing out that the presence of women in public procurement moderates the impact of the influence of interpersonal power on strategic decision-making processes.

5.5 The Level of Professionalization as a Moderator of Interpersonal Power in the Management of PPS

The literature review carried out as part of the theoretical framework showed previous studies focused on the professionalization of public servants in charge of public procurement (OECD, 2023a). These works argue that the level of technical training on PP positively moderates the relationship between interpersonal power of PP managers and decision making.

In the context of the present study, focused on the PPs in the Peruvian case, professionalization is linked to levels (basic, intermediate or advanced) of certification issued by the OSCE, which would reflect the professional competencies in relation to the management of the PPs. Through in-depth interviews, the presence of this moderating effect attributable to the degree of specialized qualification was confirmed. That is, in the presence of higher professionalization via competency credentials, the incidence of interpersonal power in the decision-making dynamics of state organizations would be enhanced.

In summary, the findings obtained by this research reinforce the need to continue strengthening the specialization of public servants who participate in PP processes.

5.6 Organizational Culture as a Moderator of Interpersonal Power in PP Management

The proposed theoretical model was validated and indicated that the organizational culture characteristic of public contracting is bureaucratic and hierarchical (OECD, 2016), acting as a moderating variable of the relationship between interpersonal power and decision making. The study confirmed the negative moderating effect of said organizational culture on the relationship between interpersonal power and decision making. That is, the impact that individual power of influence has on decision-making is moderated by the presence of formalization through protocols and guidelines within entities, as well as hierarchization in the organization.

That is, the organizational culture, hierarchical and bureaucratic, suggests that the presence of regulation, hierarchical roles and standardized procedures moderates the incidence of interpersonal power of officials on decisions in PP. The analysis emphasized that such bureaucratization should not be inflexible or excessive in actual practice. A certain margin for discretion and personal judgment is required, taking advantage of individual capabilities along with institutional protocols.

In conclusion, the evidence points to an interaction where organizational formalization moderates the influence of interpersonal power, but warns about taking said regulation to counterproductive extremes.

7. Conclusions, Implications and Proposals for Future Research

The theory of sociotechnical systems (Trist & Bamforth, 1951) is appropriate and valuable as an explanatory and interpretive framework in this research on complex organizational phenomena, such as the influence of interpersonal power in decision processes within the management of public procurement, characterized by being bureaucratized. Some consider excessive bureaucracy (Rincón Salcedo, 2012; Trammell et al., 2020). By focusing on both human and social and technical interactions, it allows us to examine in greater detail and precision the forms and channels through which interpersonal power is exercised, initially impacting key decision making and ultimately efficiency. of the management of the PPs.

The main findings of this study reinforce and provide original empirical evidence of a qualitative model of how interpersonal power affects key decisions in the management of PPs, such as the appointment of suitable managers or those who meet the minimum profiles to take charge or conduct the PPs, the timeliness of the decisions and with the technical basis, within the framework of the standard, establish coherent criteria in the PPs, all of this impacts the efficiency of the PPs.

Likewise, they demonstrate the mediating role played by constructs such as organizational culture and individual characteristics. The literature and the qualitative phase of the study highlights the level of certification (OECD, 2023a), that is, it corroborates that in the presence of professionals trained in the subject, the effect of interpersonal power on decision making is moderated and enhanced.

It should also be noted that the exploratory qualitative methodological approach is a promising path to continue expanding relevant knowledge on understudied dimensions, as is the case of this research. A robust empirical and analytical triangulation is achieved, which generates well-founded theoretical models and results with practical implications that contribute to improvement in the management of PPs.

7.1 Theoretical Implications

Public procurement is presented as a new field, in terms of its theoretical contributions to management, but publications in specialized journals are increasing (Koala & Steinfeld, 2018), concluding that public procurement is in its formulation stage, with a series of theoretical approaches. that help define the field, basically management theories or theoretical content of management in general, but which is incipient in relation to the theory of supply chain management in the private sector.

The variety of approaches and methodology used in articles on PP does not mean a lack of progress towards the development of a theory, but rather a process typical of the formulation stage, basically based on management theories in general (Flynn & Davis, 2014; Stefano et al., 2017). In this sense, the present study contributes to the formulation of the theory of PP, by using general scope theories such as interpersonal power, socio-technical systems theory (SST), efficiency, organizational culture, theories validly applicable to the management of public procurement.

This research, therefore, contributes to the theory of PP, focusing on the role of interpersonal power, even more so if we take into account the nature of public institutions that are directed by positions that respond to the trust of the government in power this makes the model and theoretical development presented more useful. Which can be used to evaluate other aspects such as ethics, leadership, among others.

7.2 Managerial and Regulatory Implications

The management of public procurement is based on the regulatory framework and the capabilities and competencies of the managers (OECD, 2016). The model presented allows in a sustained manner to explain the form of action of power in its different forms and to use it in a positive way for the coordination and advancement of the objectives of the PPs, of the institutions and of the governments as a whole, which is to improve the well-being of citizens. Context aspects such as organizational culture and individual characteristics must be taken into account.

In the regulatory aspect, it is important to find a balance, taking into account that regulating it too much can be restrictive and removing regulation can generate abuses, for this it is essential to have a theoretical basis (OECD, 2017b; Rincón Salcedo, 2012). In the Peruvian case there is a need to improve the capabilities of regulators, just look at the countless changes to the norm (Morón, 2018; OECD, 2017b).

7.3 Limitations of the Research

The data collected is subjective, coming from the opinions of the interviewees. It is noted that, although this is valuable information, there could be bias in the data provided. Little culture to participate in research projects. The disparity in knowledge and skills in the field of hiring among the professionals surveyed. Finally, the emergency situation and the constant regulatory changes.

The research is based on theoretical concepts that support the model and the proposed constructs however, it is an exploratory study and no similar previous studies have been found. The little theory that exists and supports the constructs (with the exception of power) has been carried out in other contexts and realities that are different from the Latin American reality.

7.4 Future Research

It is recommended to expand the study carried out with quantitative studies, which can take other dimensions to investigate such as levels of government or by region, which is highlighted in in-depth surveys.

Another aspect that is suggested to be studied is the impact that information technologies have on the management of public procurement.

Study complementary aspects such as leadership, ethics or corruption in the management of public procurement.

Finally, to make the findings more generalizable and reliable, a replication of this study in other contexts, using the conceptual framework presented.

Bibliographic References

- Abas, A., Arifin, K., Ali, M.A.M., & Khairil, M. (2023). A systematic literature review on public participation in decision-making for local authority planning: A decade of progress and challenges. In *Environmental Development* (Vol. 46). Elsevier BV [https:// doi.org /10.1016/ j.envdev.2023.100853](https://doi.org/10.1016/j.envdev.2023.100853)
- Ahmad, N.S., Bahri, S., & Fauzi, A. (2023). Does Mobile Instant Messaging (MIM) affect power redistribution? Evidence from a Malaysian school management organization. *Social Sciences and Humanities Open*, 7 (1). [https:// doi.org /10.1016/ j.ssaho.2023.100495](https://doi.org/10.1016/j.ssaho.2023.100495)
- Akin, G., & Hopelain, D. (1986). Finding the culture of productivity. *Organizational Dynamics*, 14 (3), 19–32. [https://doi.org/10.1016/0090-2616\(86\)90029-X](https://doi.org/10.1016/0090-2616(86)90029-X)

- Al-yahya, K. O. (2009). decisions, the use of competencies and organizational culture in public organizations: the Arab world in comparative perspective.
- Al-Yahya, K. O. (2009). Power-influence in decision making, competence utilization, and organizational culture in public organizations: The arab world in comparative perspective. *Journal of Public Administration Research and Theory*, 19 (2), 385–407. [https:// doi.org /10.1093/ jopart / mun005](https://doi.org/10.1093/jopart/mun005)
- Anthony, F. (2014). Theory in public procurement research. *Journal of Public Procurement*, 14 (2), 139–180. [https:// doi.org /10.1108/ JOPP -14-02-2014- B001](https://doi.org/10.1108/JOPP-14-02-2014-B001)
- Bachrach, P., & Baratz, M. S. (1963). Decisions and Nondecisions: An Analytical Framework. *American Political Science Review*, 57 (03), 632–642. [https:// doi.org /10.2307/1952568](https://doi.org/10.2307/1952568)
- Bakas, D., Kostis, P., & Petrakis, P. (2019). Culture and labor productivity: An empirical investigation. *Economic Modeling*, December 2018. [https:// doi.org /10.1016/ j.econmod.2019.05.020](https://doi.org/10.1016/j.econmod.2019.05.020)
- Baldus, B.J., & Hatton, L. (2019). US chief procurement officers' perspectives on public procurement. *Journal of Purchasing and Supply Management*, May, 1–7. [https:// doi.org /10.1016/ j.pursup.2019.05.003](https://doi.org/10.1016/j.pursup.2019.05.003)
- Barnes, B. K. (2015). *Excercising influence* (Third Edit). John Wiley & Sons, Inc.
- Borrás, S., & Edler, J. (2020). The roles of the state in the governance of socio-technical systems' transformation. *Research Policy*, 49 (5), 103971. [https:// doi.org /10.1016/ j.respol.2020.103971](https://doi.org/10.1016/j.respol.2020.103971)
- Bostrom, R.P., & Heinen, J.S. (1977). MIS Problems and Failures: A Socio-Technical Perspective, Part II: The Application of Socio-Technical Theory. *MIS Quarterly*, 1 (4), 11. [https:// doi.org /10.2307/249019](https://doi.org/10.2307/249019)
- Bovis, C. (2020). The priorities of EU public procurement regulation. *ERA Forum*, 21 (2), 283–297. <https://doi.org/10.1007/s12027-020-00608-8>
- ECLAC. (2017). *Gender equality plans in Latin America and the Caribbean: road maps for development* (Vol. 1).
- Clegg, C. W. (2000). Sociotechnical principles for system design. *Applied Ergonomics*, 31, 463–477. [https:// doi.org /https:// doi.org /10.1016/ S0003 -6870\(00\)00009-0](https://doi.org/https://doi.org/10.1016/S0003-6870(00)00009-0)
- Clegg, S.R., Courpasson, D., & Phillips, N. (2006). *Power and Organizations* (First).
- Comptroller General of the Republic. (2023). *Analysis of Public Procurement in Peru (2018-2022): A look from government control*.
- Spanish cooperation. (2023). *The gender perspective in the purchase and contracting of services in OOIBs*.
- Creswell, J.W., & Creswell, J.D. (2023). *Research design: qualitative, quantitative, and mixed methods approaches* (Sixth).
- Dahl, R. (1957). The Concept of Power. *Behavioral Science*, 2, 201–215. [https:// doi.org /10.1002/ bs.3830020303](https://doi.org/10.1002/bs.3830020303)
- Davies, R., Coole, T., & Smith, A. (2017). Review of Socio-technical Considerations to Ensure Successful Implementation of Industry 4.0. *Procedia Manufacturing*, 11 (June), 1288–1295. [https:// doi.org /10.1016/ j.promfg.2017.07.256](https://doi.org/10.1016/j.promfg.2017.07.256)
- de Bruijn, H., & Herder, P. M. (2009). System and actor perspectives on sociotechnical systems. *IEEE Transactions on Systems, Man, and Cybernetics Part A: Systems and Humans*, 39 (5), 981–992. [https:// doi.org /10.1109/ TSMCA.2009.2025452](https://doi.org/10.1109/TSMCA.2009.2025452)
- Erridge, A. (2007). Public procurement, public value and the Northern Ireland unemployment pilot project. *Public Administration*, 85 (4), 1023–1043.
- Filiz, E., & Battaglio, R.P. (2017). Personality and decision-making in public administration: the five-factor model in cultural perspective. *International Review of Administrative Sciences*, 83 (1_suppl), 3–22. [https:// doi.org /10.1177/0020852315585062](https://doi.org/10.1177/0020852315585062)

- Flynn, A., & Davis, P. (2014). Theory in public procurement research. *Journal of Public Procurement*, 14 (2), 139–180. <https://doi.org/https://doi.org/10.1108/JOPP-14-02-2014-B001>
- Foucault, M. (1982). The Subject and Power. *Critical Inquiry*, 8 (4), 777–795.
- French, R.P., & Raven, B.H. (1959). The bases of social power. In UMP Of (Ed.), Cartwright, D. (Ed.), *Studies in Social Power* (D. (Ed.)). <https://doi.org/10.4135/9781412994088.n37>
- Glaser, S. R., Zamanou, S., & Hacker, K. (1987). Measuring and interpreting organizational culture. *Management Communication Quarterly*, 1 (2), 173–198. <https://doi.org/10.1177/0893318987001002003>
- Gómez García, R., Alonso Sangregorio, M., & Lucía Llamazares Sánchez, M. (2018). Evaluation of job satisfaction in a sample of Spanish social workers using the 'Job Satisfaction Survey.' scale. *European Journal of Social Work*, 21 (1), 140–154. <https://doi.org/10.1080/13691457.2016.1255929>
- Grandia, J., & Meehan, J. (2017). Public procurement as a policy tool: using procurement to achieve desired outcomes in society. *International Journal of Public Sector Management*, 30 (4), 302–309. <https://doi.org/10.1108/IJPSM-03-2017-0066>
- Griffith, T.L., & Dougherty, D.J. (2001). Beyond socio-technical systems: Introduction to the special issue. *Journal of Engineering and Technology Management - JET-M*, 18 (3–4), 207–218. [https://doi.org/10.1016/S0923-4748\(01\)00034-0](https://doi.org/10.1016/S0923-4748(01)00034-0)
- Grossi, G., & Pianezzi, D. (2018). The new public corruption: Old questions for new challenges. *Accounting Forum*, 42 (1), 86–101. <https://doi.org/10.1016/j.accfor.2016.05.002>
- Harland, C., Telgen, J., Callender, G., Grimm, R., & Patrucco, A. (2019). Implementing Government Policy in Supply Chains: An International Coproduction Study of Public Procurement. *Journal of Supply Chain Management*, 55 (2), 6–25. <https://doi.org/10.1111/jscm.12197>
- Haugaard, M. (2012). Rethinking the four dimensions of power: Domination and empowerment. *Journal of Political Power*, 5 (1), 33–54. <https://doi.org/10.1080/2158379X.2012.660810>
- He, C., Milne, A., & Atallah, A. (2023). What explains delays in public procurement decisions? *Economic Modeling*, 121. <https://doi.org/10.1016/j.econmod.2023.106201>
- Hernández- Sampieri, R., & Mendoza, C. (2018). *Research methodology - The quantitative, qualitative and mixed routes* (First ed). McGRAW-HILL INTERAMERICANA EDITORES, SA de CV <https://www.ebooks7-24.com:443/?il=6443>,
- Hester, A.J. (2014). Socio-technical systems theory as a diagnostic tool for examining underutilization of wiki technology. *Learning Organization*, 21 (1), 48–68. <https://doi.org/10.1108/TLO-10-2012-0065>
- Hofmann, E., Hartl, B., Gangl, K., Hartner -Tiefenthaler, M., & Kirchler, E. (2017). Authorities' coercive and legitimate power: The impact on cognitions underlying cooperation. *Frontiers in Psychology*, 8 (JAN). <https://doi.org/10.3389/fpsyg.2017.00005>
- Hommen, L., & Rolfstam, M. (2009). Public procurement and innovation: towards a taxonomy. *Journal of Public Procurement*, 8 (1), 17–56. <https://doi.org/10.1108/JOPP-08-03-2008-B001>
- Koala, K., & Steinfeld, J. (2018). Theory building in public procurement. *Journal of Public Procurement*, 18 (4), 282–305. <https://doi.org/10.1108/JOPP-11-2018-017>
- Lawless, S., Cohen, P., McDougall, C., Orirana, G., Siota, F., & Doyle, K. (2019). Gender norms and relations: implications for agency in coastal livelihoods. *Maritime Studies*. <https://doi.org/10.1007/s40152-019-00147-0>

- Liu, H., Ke, W., Wei, K.K., & Hua, Z. (2015). Influence of power and trust on the intention to adopt electronic supply chain management in China. *International Journal of Production Research*, 53 (1), 70–87. [https:// doi.org /10.1080/00207543.2014.922711](https://doi.org/10.1080/00207543.2014.922711)
- Lukes, E. (2005). Power, A Radical View. In *Contemporary Political Theory (Issue Mm)*. [https:// doi.org /10.1057/ palgrave.cpt.9300291](https://doi.org/10.1057/palgrave.cpt.9300291)
- Mata, G., Baracat, V., Castilla, P., Close, E., Pino, DV, & Zamora, B. (2022). Public purchases with a gender perspective.
- McCue, C.P., Prier, E., & Swanson, D. (2015). Five dilemmas in public procurement. *Journal of Public Procurement*, 15 (2), 177–207. [https:// doi.org /10.1108/ jopp -15-02-2015-b003](https://doi.org/10.1108/jopp-15-02-2015-b003)
- Meehan, J., Ludbrook, MN, & Mason, CJ (2016). Collaborative public procurement: Institutional explanations of legitimate resistance. *Journal of Purchasing and Supply Management*, 22 (3), 160–170. [https:// doi.org /10.1016/ j.pursup.2016.03.002](https://doi.org/10.1016/j.pursup.2016.03.002)
- Miles, MB, Huberman, AM, & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. SAGE Publications.
- Milosavljević, M., Dobrota, M., & Milanović, N. (2019). A New Approach to the Evaluation of Public Procurement Efficiency among European Countries. *European Review*, 27 (02), 246–259. <https://doi.org/10.1017/s1062798718000777>
- Morales Inga, S., & Morales, O. (2023). Odebrecht: A case of organizational corruption. *Bet. Journal of Social Sciences*, 96, 36–51. <http://apostadigital.com/revistav3/hemeroteca/morales.pdf>
- Morón, JC (2018). The regulatory powers of the Peruvian administrative authorities in matters of state contracting. *Digital Journal of Administrative Law*, 119–157.
- OECD. (2014). *Public Procurement for Sustainable and Inclusive Growth: Enabling reform through evidence and peer reviews*. [https://www.oecd.org /gov/ethics/Public-Procurement - for Sustainable-and-Inclusive- Growth_Brochure.pdf](https://www.oecd.org/gov/ethics/Public-Procurement-for-Sustainable-and-Inclusive-Growth_Brochure.pdf)
- OECD. (2016). *Methodology for the Evaluation of Public Procurement Systems (MAPS)* .
- OECD. (2017a). *Panorama of Public Administrations 2017*. In *Panorama of Public Administrations 2017*. <https://doi.org/10.1787/9789264304543-es>
- OECD. (2017b). *Public Procurement in Peru: Reinforcing Capacity and Co-ordination*.
- OECD. (2021). *Government at a Glance 2021*. OECD. <https://doi.org/10.1787/1c258f55-en>
- OECD. (2023a). *Professionalizing the public procurement workforce A review of current initiatives and challenges*. In *Papers N°26*. [https://www.oecd.org/termsandconditions/ _ _ _ _](https://www.oecd.org/termsandconditions/)
- OECD. (2023b). *Sustainability Policies and Practices for Corporate Governance in Latin America, Corporate Governance, OECD*. OECD. [https:// doi.org /10.1787/ 76df2285-en](https://doi.org/10.1787/76df2285-en)
- Onwuegbuzie, A., & Collins, K. (2015). A Typology of Mixed Methods Sampling Designs in Social Science Research. *The Qualitative Report*. [https:// doi.org /10.46743/2160-3715/2007.1638](https://doi.org/10.46743/2160-3715/2007.1638)
- Orton, J.D., & Weick, K.E. (1990). *Loosely Coupled Systems: A Reconceptualization* Linked references are available on JSTOR for this article: *Loosely Coupled Systems: A Reconceptualization*. *The Academy of Management Review*, 15 (2), 203–223.
- Ottens, M., Franssen, M., Kroes, P., & Van De Poel, I. (2006). Modeling infrastructures as socio-technical systems Maarten Ottens, Maarten Franssen, Peter Kroes and Ibo van de Poel. *International Journal of Critical Infrastructure*, 2 (2), 133–145.
- Parnell, J. A. (2013). Uncertainty, Generic Strategy, Strategic Clarity, and Performance of Retail SMEs in Peru, Argentina, and the United States. *Journal of Small Business Management*, 51 (2), 215–234. [https:// doi.org /10.1111/ jsbm.12010](https://doi.org/10.1111/jsbm.12010)

- Pasmore, W., Winby, S., Mohrman, S.A., & Vanasse, R. (2019). Reflections: Sociotechnical Systems Design and Organization Change. *Journal of Change Management*, 19 (2), 67–85. [https:// doi.org /10.1080/14697017.2018.1553761](https://doi.org/10.1080/14697017.2018.1553761)
- Patrucco, AS, Moretto, A., Ronchi, S., & Luzzini, D. (2019). Organizational choices in public procurement: what can public management learn from the private sector? *Local Government Studies*, 00 (00), 1–24. [https:// doi.org /10.1080/03003930.2019.1608827](https://doi.org/10.1080/03003930.2019.1608827)
- Pfeffer, J., & Salancik, G.R. (1978). The external control of organizations: A resource dependence approach. In NY: Harper and Row Publishers. [https:// doi.org /10.2307/2392573](https://doi.org/10.2307/2392573)
- Attorney's Office Public. (2021). Report on Corruption during the State of Emergency due to Covid-19 in Peru. <https://procuraduriaanticorruPPion.minjus.gob.pe>
- Purani, K., Kumar, D.S., & Sahadev, S. (2019). e-Loyalty among millennials: Personal characteristics and social influences. *Journal of Retailing and Consumer Services*, 48 (July 2018), 215–223. [https:// doi.org /10.1016/ j.jretconser.2019.02.006](https://doi.org/10.1016/j.jretconser.2019.02.006)
- Ramsay, J. (1996). Power measurement. *European Journal of Purchasing and Supply Management*, 2 (2–3), 129–143. [https:// doi.org /10.1016/0969-7012\(96\)00002-0](https://doi.org/10.1016/0969-7012(96)00002-0)
- Reimann, F., & Ketchen Jr., DJ (2017). Power in Supply Chain Management. 53 (April), 3–9. <https://doi.org/10.1111/jscm.12140>
- Rincón Salcedo, JG (2012). Of the “lack of control” of regulatory production in public procurement in Colombia. *Vniversitas*.
- Roehrich, J. (2014). Public procurement (Vol. 17, Issue 1, pp. 17–18). *Wiley Encyclopedia of Management*.
- Rogulenko, TM, Bodyako, AV, Ponomareva, SV, & Pashkov, PA (2023). Methodological Support of the Estimated Efficiency of Public Procurement on a Contractual Basis. *Finance: Theory and Practice*, 27 (5), 18–29. [https:// doi.org /10.26794/2587-5671-2023-27-5-18-29](https://doi.org/10.26794/2587-5671-2023-27-5-18-29)
- Sahay, S., Aanestad, M., & Monteiro, E. (2009). Configurable politics and asymmetric integration: Health e-infrastructures in India. *Journal of the Association for Information Systems*, 10 (5), 399–414. [https:// doi.org /10.17705/ 1jais.00198](https://doi.org/10.17705/1jais.00198)
- Salas, E., & Glickman, AS (1990). Organizational behavior, theory of socio-technical systems and quality of work life, the Peruvian experience. *Magazine Latin American Psychology*, 22 (1), 69–82.
- Saldana, J. (2015). *Qualitative Coding the Manual Researchers for* (2nd ed.). SAGE Publications Ltd.
- Schein, E. H. (1985). Organizational culture and leadership: A dynamic view (Jossey-Bass, Ed.; Vol. 99, Issue 7). [https:// doi.org /10.1177/001452468809900720](https://doi.org/10.1177/001452468809900720)
- Siawsh , N., Peszynski , K., Young, L., & Vo-Tran, H. (2019). Exploring the role of power on procurement and supply chain management systems in a humanitarian organization: a socio-technical systems view. *International Journal of Production Research*, 0 (0), 1–25. [https:// doi.org /10.1080/00207543.2019.1634293](https://doi.org/10.1080/00207543.2019.1634293)
- Simon, B. H. A. (1952). A Behavioral Model of Rational Choice. 99–118.
- Stefano, A., Luzzini, D., & Ronchi, S. (2017). Research perspectives on public procurement: Content analysis of 14 years of publications in the journal of public procurement. 17 (2), 229–269.
- Sturm, R.E., & Antonakis, J. (2015). Interpersonal Power: A Review, Critique, and Research Agenda. *Journal of Management*, 41 (1), 136–163. [https:// doi.org /10.1177/0149206314555769](https://doi.org/10.1177/0149206314555769)
- Tas, BKO (2020). Effect of public procurement regulation on competition and cost-effectiveness. *J Regul Econ*, 58, 59–77. <https://doi.org/https://doi.org/10.1007/s11149-020-09409-w>

- Thanh Tran, T., Bevacqua, J., Minh Nguyen, H., & Tien Nguyen, H. (2018). The impact of public procurement rules and the administrative practices of public prosecutors on bid rigging: the case of Vietnam. *Asia Pacific Law Review*, 26 (1), 36–58. [https:// doi.org /10.1080/10192557.2018.1514183](https://doi.org/10.1080/10192557.2018.1514183)
- Trammell, E., Abutabenjeh, S., & Dimand, A.-M. (2020). A Review of Public Administration Research: Where Does Public Procurement Fit In? *International Journal of Public Administration*, 43 (8), 655–667. [https:// doi.org /10.1080/01900692.2019.1644654](https://doi.org/10.1080/01900692.2019.1644654)
- Trist, E.L., & Bamforth, K. (1951). Some Social and Psychological Consequences of the Longwall Method of Coal-Getting. *Human Relations*, 4 (1), 3–38. [https:// doi.org /10.1177/07399863870092005](https://doi.org/10.1177/07399863870092005)
- Trist, E.L., Higgin, G.W., Murray, H., & Pollock, A.B. (1963). Organizational Choice. In Tavistock Publications (Vol. 15, Issue 4). [https:// doi.org /10.2307/588884](https://doi.org/10.2307/588884)
- Uyarra, E., Zabala-Iturriagoitia, JM, Flanagan, K., & Magro, E. (2020). Public procurement, innovation and industrial policy: Rationales, roles, capabilities and implementation. *Research Policy*, 49 (1), 103844. [https:// doi.org /10.1016/ j.respol.2019.103844](https://doi.org/10.1016/j.respol.2019.103844)
- Wang, Y., Liu, J., Zuo, J., & Rameezdeen, R. (2020). Ways to improve the project management efficiency in a centralized public procurement system: A structural equation modeling approach. *Engineering, Construction and Architectural Management*, 27 (1), 168–185. [https:// doi.org /10.1108/ ECAM -12-2018-0560](https://doi.org/10.1108/ECAM-12-2018-0560)
- Weber, Y., & Pliskin, N. (1996). The effects of information systems integration and organizational culture on a firm's effectiveness. *Information and Management*, 30 (2), 81–90. [https:// doi.org /10.1016/0378-7206\(95\)00046-1](https://doi.org/10.1016/0378-7206(95)00046-1)
- Williamson, K. (2018). Populations and samples. In *Research Methods: Information, Systems, and Contexts: Second Edition* (pp. 359–377). Elsevier Inc. [https:// doi.org /10.1016/ B978 -0-08-102220-7.00015-7](https://doi.org/10.1016/B978-0-08-102220-7.00015-7)
- Zülch, Gert & Börkircher, M. (2012). Proceedings of the 2012 Winter Simulation Conference C. Laroque, J. Himmelsbach, R. Pasupathy, O. Rose, and AM Uhrmacher, eds. *Flexible Work Organization in Manufacturing – a Simulation-Supported Feasibility Study*, Meadows 1989, 1–12. [https:// doi.org /10.1109/ WSC.2012.6465229](https://doi.org/10.1109/WSC.2012.6465229)