

**Kindergarten Shortage in Astana:
Current Situation, PPP Impact and Its Limitations**

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Abstract

This paper will provide an overview of the issue of scarcity of places in kindergartens in Astana. Kazakhstan is facing a scarcity of 250,000 places and 20% of these places are located in Astana. Despite the implementation of Public-Private partnership, the issue is still current. The main focus of the paper is on the current situation of shortage of places, PPP impact in addressing this issue and the challenges in PPP mechanism. We have conducted 15 semi-structured interviews with government officials, owners of kindergartens and experts of preschool education and legal experts. Based on interviews, it was found that the PPP mechanism partially solved the problem of scarcity of places in kindergartens. Respondents mentioned the success of the Balapan program but also noted the severity of the issue now. The reason for partially solving this problem is the lack of attractiveness of PPP mechanism for private businesses for the following challenges: bureaucracy, strict requirements, land unattractiveness, corruption, economic and financial challenges. The policy recommendations were provided for each challenge.

Keywords: Kindergarten, Public-Private Partnership, Scarcity, Astana, Children

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I Introduction

Quality of preschool education is the foundation of a child's development. Further education achievements rely on its success (UNICEF, n.d.). Preschool education is crucial to a child's development since 85% of the human brain develops during the five years of life (Seidumanova, 2019). It improves children's concentration, social skills and language ability. Many researches have proven that children, who have completed preschool education, experience less stress, anxiety and have a smoother transition to school life than the ones who have not (Yong, 2022). As it was mentioned, it has a positive impact on the further education of children too. For instance, according to the Organisation for Economic Co-operation and Development's (2014) research held in 2012, the fifteen-year-old students, who had attended more than one year of preschool education, scored 51 points higher in the Programme for International Student Assessment (PISA) mathematics than the ones who had not attended.

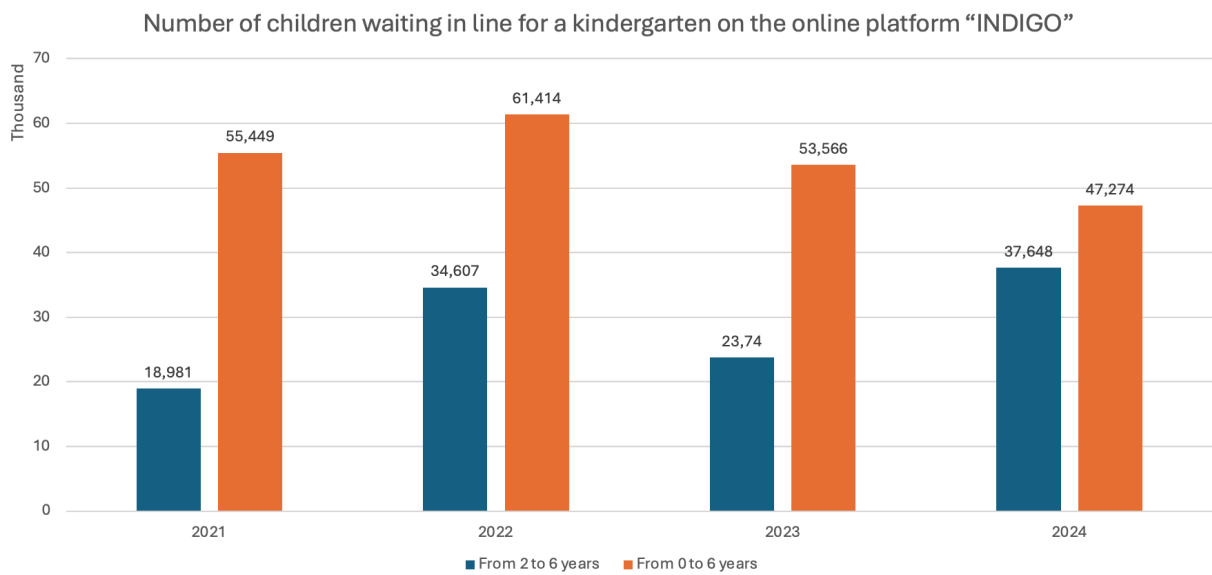
Although many researchers from different countries have proven various advantages of preschool education, most countries face an issue in its provision. One of the main problems within the provision of preschool education is the scarcity of places in kindergartens. Kazakhstan is not an exception within this list. According to statistics on the online platform "INDIGO" (2024), there are more than 250,000 children in Kazakhstan (out of 1,5 million) waiting in line to pursue preschool education, meaning that each sixth child is waiting for the queue. The lack of places in kindergartens can be noticed in 80% of Kazakhstan's regions: this deficiency was especially considerable in Astana, Karaganda, Aktobe, Kostanay, and Pavlodar (Seidumanova, 2019). As it can be seen, the problem of shortage of places in kindergartens is crucial throughout the country.

2017 has played one of the key roles within the history of kindergartens' operation in Kazakhstan since the construction of public kindergartens ceased that year. Since 2017 the Public-Private Partnership (PPP) has become the most popular mechanism in solving the issue of scarcity of places in kindergartens. Despite measures undertaken by the government, including Public-Private Partnership, Kazakhstan continues experiencing the shortage of kindergartens and places in them even now (Tengrinews, 2023). Upon this issue, President K. Tokayev set the task of ensuring 100% coverage of children under the age of six with pre-school education and training by 2025. "We need to solve the problem

of the comprehensive development of the child before entering school,”- said Kassym-Jomart Tokayev (Aliyev, 2020).

As it can be seen from Figure 1, almost 20% of those children waiting in line (out of 250,000) are located in Astana. There were only about 19 thousand children who were actively waiting in line (counting only those who are between the ages from 2 until 6) in Astana in 2021 , the number of active waiters has almost doubled by this year (also refer to Figure 1).

Figure 1: Number of children waiting in line for a kindergarten in Astana on the online platform “INDIGO”



Source: directly requested from INDIGO. 2024

There are some specific reasons why we have selected Astana as our main focus. First, although some research has been done on the topic of PPP mechanism as a solution to the scarcity of places in kindergartens in Kazakhstan, there is no research done on Astana particularly. Second, it is related to the fact that issues in Astana, as the capital, are prioritized by the government in comparison with other regions. Therefore, we are interested in why Astana is facing a shortage of places in kindergartens despite the fact that it is given priority. Third reason for focusing on Astana is the feasibility of respondents that contributes to gaining more comprehensive responses by having face-to-face interviews.

Considering the scarcity of places in kindergartens and PPP mechanism as the main

tool in solving the issue, this research paper poses the following research questions:

1. To what extent does PPP help to resolve the shortage of kindergartens in Astana?
2. What are the challenges within the PPP mechanism in preschool education?

II Literature Review

The literature review includes the main studies related to the explanation of the PPP mechanism and its features, functions and models, as well as the successes and failures of PPP projects in different countries, and explains the factors contributing to this.

2.1 Definition of PPP and its features

Public-private partnership is a concept that has a wide variety of definitions.

For example, International Monetary Fund defined PPP as:

“An arrangement where the private sector supplies assets and services that traditionally have been provided by the government. In addition to private execution and financing of public investment, PPPs have two other important characteristics: there is an emphasis on service provision, as well as investment, by the private sector; and significant risk is transferred from the government to the private sector”

(as cited in The World Bank, 2015).

Organization for Economic Co-operation and Development described it as follows:

“An agreement between the government and one or more private partners (which may include operators and financiers) according to which the private partners deliver a service so the service delivery objectives of the government are aligned with the profit objective of the private partners and the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners”

(as cited in The World Bank, 2015).

Van Ham and Koppenjan (2001) defined PPP in the following way:

“cooperation of some sort of durability between public and private actors in which they jointly develop products and services and share risks, costs, and resources which are connected with these products” (as cited in Hodge & Greeve, 2019). The definition of Van Ham and Koppenjan is considered more relevant to our research since it emphasizes the importance of sharing challenges in PPP projects.

Payment of projects is one of the crucial features of PPP (Cangiano et al., 2006; The World Bank, 2015). The payments can be divided into user-pays, government-pays and both and always depends on the performance of the project. Private party collects revenue from users for providing its services under the user-pays PPPs as in the example of toll roads. These payments can be increased by the government payments for low-income users or government subsidies in the process of construction. In government-paid PPPs, the

government is the only source of revenue for the private company (example of free highway) (Cangiano et al., 2006). As it was stated by Cangiano et al. (2006), in PPPs projects, the private party brings more responsibilities and faces more challenges than the government. Sharing challenges is considered to be the next key component of PPP. There are numerous potential challenges which can be in a PPP project. A PPP project which focuses on only service, operation or maintenance has fewer challenges than projects such as BOOT (build, own, operate, transfer) or BOO (without transfer) and others (Cangiano et al., 2006). Challenges in these such projects can be related to:

- Land availability and acquisition (this is crucial point during tender process);
- Return on the investments;
- Demand, revenue and costs;
- The construction and operation of infrastructure;
- The regulatory environment (tax adjustments);
- Economic factors such as inflation, exchange rates and interest rate (the prices can increase and the project will be more costly than it was expected);

Having above-mentioned risks, most researchers emphasize that the challenges in PPP should be allocated to achieve a good-quality project. As it was mentioned by Irwin (2007), challenges must be taken into account by the best prepared party to prevent additional project costs (Engel et al., 2014). The ability to address the challenges differ depending on the situation.

2.2 PPP functions and models

The mechanism of PPP works in different ways (Cangiano et al., 2006). Functions of private parties in the agreement vary and mostly depend on the type of goods and services that it provides. Most common functions are design, construction or rehabilitation, financing, maintenance and operation (World Bank, 2017; Cangiano et al., 2006). Design is also called engineering work which includes developing projects in the initial stages and producing outputs which can be used in the construction or rehabilitation process. Construction or rehabilitation means that a private party is responsible for building and installing all equipment or rehabilitating the existing infrastructure. Finance stage requires a private party to finance expenses of the project, mostly during the construction, rehabilitation or operation process. Maintenance - private parties are required to maintain

an infrastructure to a specified standard over the period of the contract. Regarding operation, operating functions can differ depending on the goods and services (World Bank, 2017). World Bank (2017), Cangiano et al. (2006) and Jonga (2021) noted that there are numerous types of PPP models and they vary mostly depending on the ownership. They highlighted the most widespread five types of PPP models. First one is Build-Own-Operate (BOO) which can be equated to the privatization of a facility since the facility is not transferred to the government. At the end of the BOO concession contract, the agreement might be renegotiated for a further period. While, in Build-Operate-Transfer (BOT), the private sector owns a facility during the contract period then transferred to the public sector. In Build-Own-Operate-Transfer (BOOT), ownership of the facility belongs to the private party until the end of the concession period. Then, ownership and operation rights are transferred free of charge to the government. Build-Transfer-Operate (BTO) model is used when the private sector has ownership over a facility during the construction period and after completion, it transfers legal ownership to the public sector. The government can lease the facility back to the private sector for a long-term period and the private party operates it during this time. Design-Build-Finance-Operate (DBFO) model is used when the private party finances the project and under this model, the private party has long-term access to the facility, mostly for 30 years. After lease ends, the ownership is transferred to the public partner (Jonga, 2021). The following Figure 2 shows the difference between these models of PPP contracts in more detail.

Figure 2. PPP models

Public-Private Partnership (PPP)					
Contract Type	Design-Build-Finance-Operate (DBFO)	Build-Transfer-Operate (BTO)	Build-Operate-Transfer (BOT)	Build-Own-Operate-Transfer (BOOT)	Build-Own-Operate (BOO)
Construction	Private Sector	Private Sector	Private Sector	Private Sector	Private Sector
Operation	Private Sector	Private Sector	Private Sector	Private Sector	Private Sector
Ownership	Public Sector	Private Sector during construction then Public Sector	Private Sector during Contract then Public Sector	Private Sector during Contract then Public Sector	Private Sector
Who pays?	Users or Offtaker	Users or Offtaker	Users or Offtaker	Users or Offtaker	Users or Offtaker
Who is paid?	Private Sector	Private Sector	Private Sector	Private Sector	Private Sector

Source: Jonga, 2021.

2.3 PPP concept in the context of Kazakhstan

As we are going to consider PPP in the educational sector in Kazakhstan, it is better to define it and discuss its forms and types in this context.

A public-private partnership (PPP) is a form of cooperation between the public and private sectors based on a contract that covers medium-to-long-term project periods ranging from five to thirty years. This is the mutual participation and joint efforts of both parties in the implementation of the project, including the pooling of resources and private sector investments for its implementation. Under PPP, public and private partners strive to achieve common goals by pooling their efforts and resources for the successful implementation of the project, which contributes to the development of the economy and society as a whole (Gov.kz, 2021).

According to the method of implementation, PPP is divided into two main forms: institutional and contractual (Gov.kz, 2021). Institutional PPP is when there is a cooperation between the government and private businesses within a distinct institution.

The contractual nature of PPP is based on contractual links between the public and private parties. Contractual PPP has found application in Kazakhstan (Gov.kz, 2021).

In turn, PPP contracts have the following types: concession, trust management of state property, rental of state property, leasing, contracts for technology development, testing and small-scale production, life cycle contract, service contract, other types of contracts corresponding to the characteristics of PPP (Gov.kz, 2021).

2.4 Country experiences

Public-private partnerships have been used in many countries around the world (Lewin and Sayed, 2005). PPP is used as one of the tools for provision of public goods and services, therefore easing the financial burden for the government (UNICEF, 2018). This mechanism is relatively new, however it is widely used and succeeded in different sectors such as transport, energy, infrastructure, health and education. The most developed countries in the PPP market are European countries (Nuraliyev & Kulikova, 2021). Therefore, according to the European PPP Center (EPPPC), the leaders in engaging in the PPP mechanism are the United Kingdom, France, Spain, Portugal and Germany, which implemented PPP projects in 90% of their entire market. In the Russian Federation, PPP is also developing rapidly. Thus, the number of projects in the period from 2015 to 2020 amounted to 25 concluded contracts in the amount of 62,438 billion rubles (Nuraliyev & Kulikova, 2021).

The PPP mechanism is now actively used in the education sector (UNICEF, 2018). Mostly, it is used in provision of school, canteens and kindergartens. According to Unicef (2018) and Nuraliyev and Kulikova (2021), countries such as the Philippines, Russian Federation, Azerbaijan, Hong Kong, Sri-Lanka, Pakistan and European countries are actively using the PPP mechanism in the field of preschool education. Most of the projects succeeded in increasing access to preschool education (UNICEF, 2008). An article by Alrasheed et. al (2023) mentioned the success of the PPP mechanism in the provision with schools in Ireland. The authors highlighted the principles like transparency, accountability and high quality financial analysis which ensured the success of the PPP project. Helmy et.al (2020) found other factors affecting the success of PPP projects analyzing the successful projects in Egypt. Based on their research, the success of the project depends on political, economic, legal, managerial and operational factors. Favorable political and

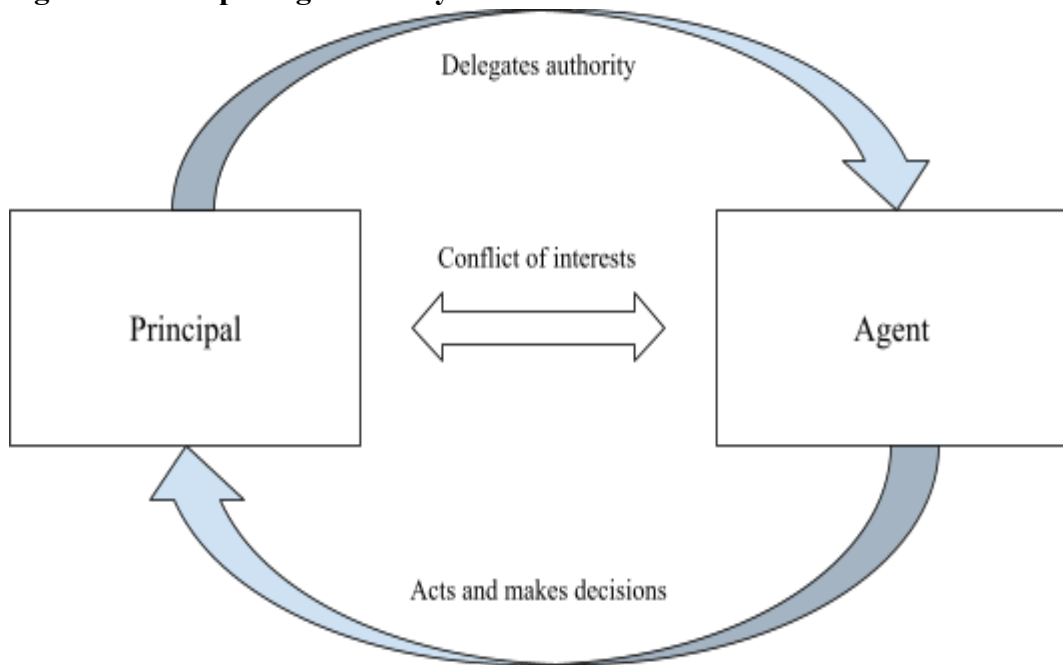
economic state of the country, comprehensive legal and regulatory framework and transparent managerial and operational process help PPP projects to succeed.

However, there are some failed projects under the PPP mechanism. A study conducted by AlSaaidi et.al (2023) and Unicef (2018) identified the main reasons for failures in PPP: poor risk management, lack of stakeholder engagement, poor project planning and design, inadequate financial analysis. The study concluded that it is crucial to create mutually beneficial contracts for both private and public actors with careful planning and management of PPP projects in order to avoid failures. Such measures also contribute to increasing the stakeholder engagement in PPP projects. Research done by Mouraviev and Kakabadse (2014) on PPP mechanism in preschool education in Karaganda in Kazakhstan showed that the responsibility in the PPP mechanism is shared unevenly and private businesses face more challenges than the government which then resulted in high project costs and poor results. Difficulties in the construction and operation process, as well as problems such as low demand from parents, a weak regulatory framework and an unfavorable political and economic environment, undermine the success of PPP projects in the field of preschool education.

III Theoretical Framework

Principal-agent theory (PAT) was identified in the 1970s after the research of numerous economists and theorists. Jensen and Meckling (1976) defined PPP as a theory that analyzes conflicts of interest between the Principal (State) and the Agent (managers) who take responsibility for the procurement, development and operation processes in the provision of infrastructure. In PAT, as it is illustrated in Figure 3, the principal delegates the authority, while agents act and make decisions on the behalf of the principal. Both stakeholders may partner to provide an outcome, however in some cases the partnership might be not equal in terms of influence, knowledge, skills, risks and finances (Liu et al., 2016). Furthermore, they may try to gain benefit from the projects at the expense of the quality of these projects. Thus, the principal-agency problem arises when the interests of stakeholders conflict.

Figure 3. Principal-Agent theory



Source: Authors' figure

The conflicts between principal and agent were first identified by Coase (1937) who questioned the existence of different firms. Alchian and Demsetz (1973) developed this theory, focusing on the property rights of the firms. Demsetz (2002) stated that neoclassical economics skipped the issues related to the structure or form of the firm, property rights and contractual agreements, since it was assumed that ownership and management belonged to the one stakeholder. Developments in the theory can be shown in two topics: 1) “a tendency for

individuals to pursue their own interest in ways that conflict with the goals of the team” and, 2) “an adjustment of ownership structures and contracts so as to reduce the degree to which team goals are compromised by this tendency” (Demsetz, 2002).

PAT identified two main problems in the relationship between stakeholders: “adverse selection” and “moral hazard” (Picard, 1987). These problems occur due to the asymmetric information. Adverse selection occurs in a pre-contract phase when the principal selects an agent who may not be the most suitable for the project due to limited information (Amagoh, 2009). Moral hazard is a post-contractual problem and occurs when a private party prioritizes its own interests to achieve personal gain and neglects the interests of the principal and the things agreed in the contract (Laffont & Martimort, 2002). For example, most private entities are trying to increase their profit by reducing costs of the project, which then leads to poor project quality. The principal cannot totally solve the problem of moral hazard since it cannot monitor everyday activities of the agent (Amagoh, 2009). If the state had complete information about the private party’s capability, interests and motivations, the contracts would be totally fair and there would be no problems as adverse selection and moral hazard. However, in reality it is not possible to have perfect information, so above-mentioned problems exist (Hassan and Fatile, 2022). In PAT, both actors are following their interests based on rationality (Greiling, 2009 as cited in Hassan and Fatile, 2022, p.143). This theory attempts to determine where the interests of the actors conflict and how to get the agent to act in accordance with the principal.

The literature suggests that PAT is considered one of the most appropriate theories to analyze PPP since it focuses on *the trust, risk allocation and responsibilities* allocation between the government and private businesses (Smyth & Edkins, 2007; English & Baxter, 2010). PAT tries to solve the problem of conflict of interests, mostly the problem of private sector self-interest that might be at the expense of social benefits. This theory shows that governments use PPPs as a low-cost tool to provide public good and to promote economic growth and social welfare. However, most private businesses do not share these goals as a priority. Instead, they are interested in increasing their utility, their profit and prioritizing efficiency over effectiveness. Mostly, they try to reduce costs which then lead to poor quality outcomes (Shrestha & Martek, 2015). The problem is that, despite the fact that private business relieves the financial burden of the government, it also gains significant control over the project, which can then lead to non-fulfillment of duties contrary to the interests of the government (Amagoh, 2009). PAT also

considers the problem of risk-bearing which is the main topic for Public-Private Partnerships. Risk-allocation is one of the major advantages of PPP since it can contribute to an increase in efficiency of the project. However, if the risks are allocated fairly, the project will suffer from poor quality or become stagnant.

To solve the above-mentioned problems of adverse selection, moral hazard, De Palma et. al (2012), Williamson (2002) and Dewatripont and Legros (2005) offered to build a comprehensive, legally binding contract between government and private company, to have stable contract terms over time, to monitor the quality of service delivery and to punish in case of the non-performance of the contract (as cited in Hassan and Fatile, 2022). To address the problem of risk-bearing, Hassan and Fatile (2022) stated that the risks should be allocated to the party that manages them better in order to minimize the risk costs. Likewise, as it was stated by Hassan and Fatile (2022), mostly private businesses are risk-averse, while the government is risk-neutral in PPP projects, so the government should incentivize the private party to bear some risks and complete the project.

IV Methodology

4.1 Case study selection

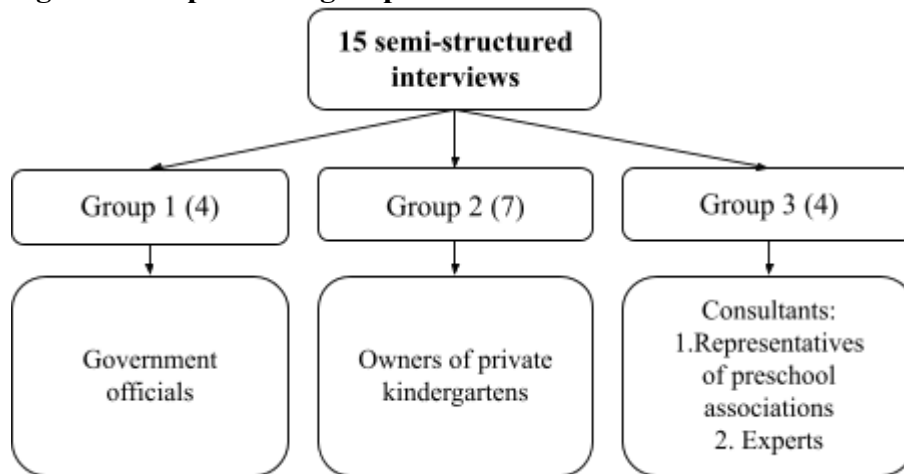
This study examines why public-private partnership in the field of preschool education does not completely solve the problem of shortage of places in kindergartens in Astana. That is, we used the case study of the shortage of places in kindergartens of Astana city. According to Robert K. Yin, case study is used as a research strategy when the goal is to study phenomena occurring in real time. During the case study, the focus is on contextual conditions, namely the factors or circumstances that affect the understanding and outcome of the phenomenon and it is the most appropriate strategy when research questions ask how and why questions. (Robert K. Yin, 2014). So, in this paper our aim was to discover possible challenges and obstacles that affect the PPP mechanism in the field of preschool education. In this case, our choice of a case study, as a research method, helps us answer our main research questions, and it is also consistent with the theory of Robert K. Yin in terms of when it is best to use the case study for research. The unit of analysis of our research are kindergartens.

4.2 Interviews

To get the answers to our research questions, we conducted 15 semi-structured interviews. A semi-structured interview is defined as an interview that has a pre-thought-out protocol, questions and structure, but at the same time leaves the opportunity to develop a discussion of additional emerging issues for a deeper understanding of the topic under study (Magaldi & Berler, 2020). The semi-structured type of interview was chosen to be flexible and be able to ask clarifying questions that arise during the interview, which gave us a clear understanding of the problem we studied. To find respondents, we sent them a request via social media, wrote official letters and used the snowball method when the interviewer directed us to other respondents.

The respondents that we interviewed can divide into 3 groups. In the first group there are 4 people, they are the government officials: Akim of Nura district and heads of the departments in city Akimat. In the second group there are 7 respondents: the owners of private kindergartens. The third group consists of 4 people: 1) representatives of preschool associations and 2) experts in preschool education and legal experts. This scheme is shown in Figure 4 below:

Figure 4. Respondents group classification



Source: Authors' figure

The interviews were conducted at one point in time. In this case, we interviewed each of our respondents only once due to the limited time of government officials and other interviewees. This is the opposite of experimental and longitudinal designs, where interviews or surveys are repeated periodically and take a long time. The interviews had the same prepared in advance questions for all respondents.

In addition to the interviews, we used secondary data. The statistical data was necessary to explain some of the factors influencing the shortage of places in kindergartens in Astana. The data was taken from the Bureau of National Statistics as well as from different reports, academic articles, publications and media sources. The ones that we could not find in open sources were requested from the Department of Education of Akimat of Astana.

The analysis of the collected data was based on the thematic analysis method. This method is used in processing qualitative data gathered from interviews. We followed a six-step process: first we collated and reviewed the raw material of findings, then coded them, after that we identified the patterns and generated themes. Afterwards all the themes were reviewed, defined, named, and finally written up.

Ethical responsibilities were followed at all stages of interaction with our respondents. Permission to conduct an interview, permission to record and disclosure of the respondent's confidentiality were asked in advance. Some respondents gave us permission to record, but most did not agree, so they wanted to stay anonymous. We took all these wishes into account and acted within the limits of the actions allowed to us.

V Findings and discussion

This chapter represents the findings collected from interviews with experts of preschool education, lawyers, owners of kindergartens, akim of Nura district, head of the Department of Education, head of the Department for Investments and Entrepreneurship Development of Astana city, representatives of the preschool education association “Adilet”, and Kazakhstan Association of Continuing Education (KACE).

Representatives of government agencies provided us with comprehensive information about the state's actions in the field of preschool education, future development plans, and mechanisms to eliminate shortage problems. The owners of kindergartens gave information about the barriers and difficulties in the process of opening a PPP kindergarten, how interaction with responsible government agencies takes place, and in general about the problems that they would like to solve and which, in their opinion, are factors influencing the shortage problem. Preschool education experts and representatives of preschool associations also made a significant contribution to our study by providing objective information about the problem of the shortage of places in kindergartens from the point of view of experts independent from the state bureaucracy. The legal advisers helped us to familiarize ourselves with the PPP mechanism from the point of view of legitimate processes. As owners of kindergartens preferred to keep confidentiality, they were addressed as “owners of kindergartens”.

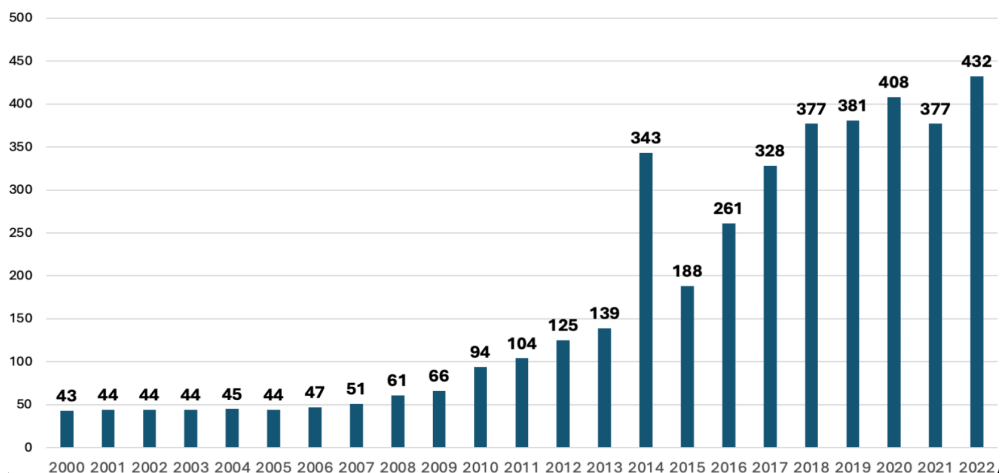
5.1 Process of PPP mechanism

Legal experts explained the process of the mechanism of PPP in preschool education in Kazakhstan. A tender is being held for a state order, where the state allocates the number of places for kindergartens. Private businesses provide relevant documents in the tender process. The state selects the winners of the tender process and concludes a PPP contract. In a PPP project, if a typical garden is being built, the state provides land and reimburses all investment costs to the business. If a private business rents a building, the investment costs are not refunded. The services provided by the private businesses depend on the type of contract. After receiving state order, the private businesses apply for receiving per capita funding (54,506 tenge). To receive this funding, they should comply with all the requirements.

5.2 PPP's Impact on Addressing Kindergarten Shortages in Astana

The answers of our interview respondents to the question “To what extent does PPP help to resolve the shortage of kindergartens in Astana?” were divided into two. One part claimed that the PPP mechanism partially solves the issue of the shortage of places in kindergartens in Astana. The most common argument among respondents for that claim was the introduction of the Balapan program. It is known as a state program created for providing children with preschool education and training, which was technically based on the PPP mechanism. It was launched in 2010, lasted until 2013, and was considered as a successful tool to deal with scarcity of kindergartens and places in them. Through this program (2010-2013), the government created 297,288 places in the kindergartens and significantly decreased the scarcity (Adilet.zan.kz, 2024). The program was extended until 2020 due to its success and closed on the designated year without further extensions as the PPP was separately introduced in 2015 and began its autonomous functioning as a mechanism to combat the shortage of seats in government kindergartens. Upon this program, the authorities increased the number of kindergartens within Kazakhstan from 3,313 in 2013 to 6,159 in 2018. In 2018, 90.5% of 3-to-6-year-olds were engaged in preschool education as a result of growing governmental investment and private sector participation in this program (UNICEF, 2019). According to respondents, the Balapan program has proven to be effective, as the number of kindergartens in Astana has approximately quadrupled compared to 2010 (Bureau of National Statistics, 2024). The number of preschool organizations in Astana has increased from 94 to 432 within since 2010 (refer to Figure 5).

Figure 5. Number of preschool organizations in Astana



Source: Bureau of National Statistics. 2024

However, they also noted that the PPP mechanism does not solve the problem as there is still a huge number of children on the waiting list. As indicated in Figure 1, the number of children actively waiting in line (from-2-to-6-years), instead of decreasing or staying on the same level, has increased. Other respondents argue that PPP does not solve the issue, emphasizing the increasing trend in the number of children waiting in line for kindergartens.

5.3 Challenges in PPP mechanism

Based on interviews, we have found out that there are several challenges in the PPP mechanism for both private businesses and the state. Some of these challenges are shared by both actors, some of them are faced only by private businesses. Bureaucracy, strict requirements and land unattractiveness are the challenges that only the owners of kindergartens face. Economic, financial challenges and corruption are faced by both private businesses and the state.

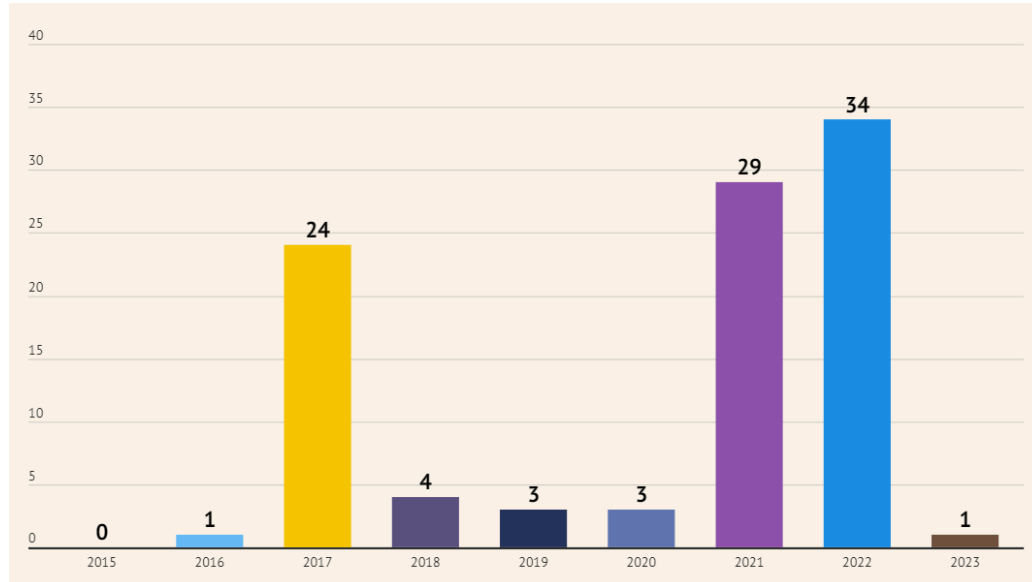
5.3.1 Bureaucracy

Private businesses and lawyers pointed out that one of the challenges in the PPP mechanism is bureaucracy such as the long tendering process, the changes in the laws and policies. The tendering process takes from half a year to 1.5 years, which leads to delays in the implementation of projects, freezing of assets and increase in project costs. As it was mentioned by the lawyer, “Tender procedures take a lot of time, and business assets are frozen at that time, so it is not in their interests” (Owner of a kindergaten). Private kindergartens have also noted that their businesses including their assets experience stagnation during the tendering process. Moreover, this lengthy tendering process can create financial and economic challenges for private companies. For instance, while waiting for the completion of the tendering process, the prices of construction materials, equipment, maintenance may increase, leading to financial challenges. Therefore, private entrepreneurs offered to reduce the period of tendering process (Two owners of kindergartens). The government representatives also noted that the tendering process takes a lot of time and these financial and economic challenges are shared with the government too. However, the tendering process cannot be shortened due to the significant steps that need to be taken to

ensure the effective implementation of the PPP project (K.Sengazyev, interview, February 29, 2024; K.Akimzhanov, interview, March 1, 2024).

Another problem with bureaucracy is the changes in the law and policies. According to the akim of Astana, Zhenis Kassymbek, in the capital, the construction of public kindergartens ceased in 2017. During the last 7 years private kindergartens were allocated by state orders, and only starting from this year construction of state kindergartens in Astana resumed (Vaal, 2023). This was also mentioned in the interviews with the akim of Nura district, Zhusup Zhumagulov and owners of kindergartens. This decision of ceasing construction of kindergartens put more burden on the PPP mechanism in solving the problem. However, with different external factors such as increasing birth rate after Covid-19 and increasing migration rate due to the geopolitical situation in neighboring countries, the PPP mechanism cannot totally solve the problem of scarcity of places in kindergartens. That is why the construction of the kindergarten has resumed again. To reduce the shortage of places in kindergartens, both the construction of state kindergartens and PPP mechanisms will be used (Z.Zhumagulov, interview, February 19, 2024; owners of kindergartens). Private businesses also face challenges in the laws and policies related to PPP mechanism directly. Currently, there are two laws about PPP projects: The law "On Concession" which was adopted in 2006 and the law "On Public-private partnership" which was introduced in 2015. The coexistence of these laws often creates ambiguity and confusion among private businesses. Both laws consider the concession contract and both of them are used in regulating these contracts (owners of kindergartens; Asian Development Bank, 2022). Likewise, private businesses are losing interest in the public-private partnership due to the frequent changes in the law "On Public-private partnership" (owners of kindergartens, experts). According to the PPP center, the number of PPP contracts has decreased significantly since 2018. If there were 274 PPP contracts in 2018, only 37 PPP contracts were concluded in 2023. According to the deputy of the Mazhilis of the Parliament of the Republic of Kazakhstan, Magerram Magerramov, this decrease in the number of PPP contracts can be associated with the instability of the law since more than 100 amendments were made to the law "On Public-private Partnership" (the National Chamber of Entrepreneurs "Atameken", 2024). The number of amendments made over the years is shown in Figure 6.

Figure 6. The number of amendments over the years to the Law of the Republic of Kazakhstan "On Public-private partnership"



Source: Kapital, 2023

Experts and government officials agreed that these frequent law and policy changes create instability in PPP mechanisms and make this mechanism less attractive for private businesses.

To sum up, bureaucracy including the long tendering process, the existence of two laws regulating PPP, the frequent changes in the laws and policies related to the kindergartens and PPP mechanism can be considered as one of the main challenges for private parties. These challenges make PPP contracts in the field of preschool education unattractive to investors. Government officials and experts share the opinion of private entrepreneurs on the unattractiveness of PPP due to changes in legislation and policy and on making one stable law. But they do not agree with shortening the tender period, since this process includes important stages that contribute to the effective implementation of PPP projects.

5.3.2 Strict requirements

Private parties stated that strict requirements for kindergartens are the following challenge for them. As it was noted by the owner of the kindergarten: “Sanitary and epidemiological control required me to have a shade canopy for 20 sq.m. and that the bathroom area be at least 16 square meters. Such requirements do not exist even for public

kindergartens” (owner of kindergarten, interview, February 28, 2024). Such strict requirements decrease the attractiveness of PPP mechanisms. In 2022, technical standards, sanitary and epidemiological requirements for PPP kindergartens were tightened. Now kindergartens are obliged to ensure fire and anti-terrorist security and install alarm buttons and internal voice notification systems, video cameras. Also, children should be provided with qualified medical care. At the same time, the requirements for teachers of preschool organizations have been tightened. Caregivers need to have qualifications and/or education appropriate to the specifics of working with children (owners of kindergartens; Lukicheva, 2022). As the number of requirements are increasing, complying with all of them is costly and this makes the mechanism unattractive for private businesses. Moreover, the moratorium, which was held from the beginning of 2020, on inspections, preventive control and supervision with visits to micro and small businesses was lifted at the beginning of this year which further complicated the work of private businesses (owners of kindergartens). The opinions of government representatives and experts on the requirements differed significantly from those of private parties. The state representatives and experts argue that these requirements are necessary in order to provide children with a safe environment and good quality preschool education (K.Sengazyev, interview, February 29, 2024; G.Kiikova, interview, February 9, 2024). Furthermore, expert in preschool education, Gaukhar Kiikova criticized private entrepreneurs for their attempts to make money at the expense of children’s safety: “in PPP, many private owners try to make money reducing the expenses for the basic needs of children. As they know that the kindergarten will be transferred back to the state in a few years, they are trying to earn as much as possible in a certain period of time. Due to these actions, not only the quality suffers greatly, but also the children themselves. This PPP project turned out to be "a beautiful box from the outside, which does not have the proper quality. In order to avoid such kindergartens, the requirements should be strict” (G.Kiikova, interview, February 9, 2024). As we see, strict requirements are needed to ensure children with safety and good quality education. Nowadays, many kindergartens do not comply with the requirements. Kindergartens might violate technical requirements and state standards (GOST) and others. As it was stated by the chairman of the preschool organization named “Adilet”, Dinara Kudaikulova, “there are many schools which violate the requirements. Some kindergartens are located next to the roadway, others

lack a playground. There are a lot of such kindergartens that violate the requirements of the SanPiN. The current requirements are not strict. Businesses want to simplify these requirements in order to make more money” (D. Kudaikulova, interview, March 15, 2024).

Having above-mentioned findings, it can be summarized that strict requirements also significantly affect the attractiveness of the PPP mechanism for private businesses. So, private businesses asked to mitigate the requirements. However, government officials and experts opposed it, saying that these requirements are necessary to ensure high-quality preschool education and a high level of child safety.

5.3.3 Land Unattractiveness

The next challenge is the unattractiveness of land. The problem is that the government might provide unattractive lands such as lands in new districts, lands far from residential complexes. As private businesses are interested in the profit, they prefer to take attractive lands which are surrounded by numerous residential complexes. They want to know that there will be a demand from parents’ side. The number of children attending kindergartens is important for them since they receive per capita funding for each child. To cover all their expenses, private enterprises are trying to fill kindergartens. As stated by government officials, if the land is unattractive, most private enterprises refuse to enter into PPP contracts (Z.Zhumagulov, interview, February 19, 2024; owners of kindergartens). The reason for the unattractiveness of the land is improper planning of urban construction. As there is no free land close to residential complexes, social objects are located far away. Therefore, now in the capital, the state officials actively oppose dense construction of residential complexes. It is planned that social facilities will be constructed on twenty lands instead of multi-storey residential buildings. This includes schools, hospitals, public spaces such as parks, squares and kindergartens (Pack, 2023). This was also mentioned in the interview with the akim of Nura district, Zhusup Zhumagulov, “certain lands for social projects cannot be changed for their intended purpose now. That is, if a kindergarten is designated for a particular land plot, then no more objects can be built there”. He also mentioned that the lands for kindergartens will be allocated near residential complexes in the new district. This will save private businesses from low demand and low profitability.

Both private business and government officials agreed that the PPP mechanism might be unappealing for private business due to unattractive land and different measures should be taken to solve the issue.

5.3.4 Economic challenges

Private businesses also face economic challenges such as inflation, crises. As it was mentioned before, during the long tendering process, the cost of projects might significantly increase due to inflation. PPP contracts in Kazakhstan do not address currency risks and inflation. However, in other countries, these economic factors are taken into account in PPP projects. It is noted that per capita financing is growing every year in accordance with inflation, but prices for kindergarten maintenance are also rising correspondingly (owners of kindergartens). Therefore, private businesses are not interested in the PPP mechanism, as it is unprofitable. Sudden crises such as Covid-19 also create unexpected costs for both state and private businesses. As it was in Covid-19 period, adapting to new safety measures, regulations such as increased sanitation, social distancing and ensuring personal hygiene equipment created financial challenges for businesses. Fear of infection led to decreased enrollment as parents wanted to keep their children at home and this led to reduction of revenue (owners of kindergartens). The state also faced financial difficulties, because when the infection rate decreased and children began to attend kindergartens, some private enterprises indicated the number of children was higher than it actually is. Private businesses received per capita funding for "dead souls" who, in fact, did not study in kindergarten. As a result of corrupt activities of private business, the government may lose a significant amount of the budget (K.Sengazyev, interview, February 29, 2024).

As we see, the economic challenges such as inflation, currency risks and Covid-19 might create challenges in the PPP mechanism in preschool education for both private businesses and state.

5.3.5 Corruption

The following challenge is corruption. It was noted that some requirements are not written in the document about sanitary rules, however Sanitary and Epidemiological Service (SES) requires such norms. For instance, the owner of kindergarten stated that it was claimed in the document that kindergarten should have only one handoff door, while during the inspection process SES required two separate handoff doors. Other private

enterprises have also mentioned the existence of such unwritten requirements. The owners of kindergartens suspect the SES of corrupt activities. Moreover, some kindergarten owners noted that “the inspection commission from the Sanitary and Epidemiological Service arrives strictly in the last days of inspection. The problem is if inspection came in the first few days, businesses would not wait for the conclusion of SES for more time” (owners of kindergartens). Also, experts and private kindergartens noted that the reason for coming late might be the corrupt actions of SES such as giving priority to those who are connected with some relations or to those who give bribes. Therefore, both experts and private businesses proposed to create private and independent laboratories of SES since it decreases corruption risks and undermines the monopolistic position of SES. State representatives commented on these activities of SES in the following way: “They are afraid that they will be accused of corruption, so they don't come to anyone for the first few days and start coming only in the last few days” (K.Sengazyev, interview, February 29, 2024). The idea of independent laboratories is supported by the state representatives. The corrupt activities also can be a challenge for the state. As it was mentioned before, private businesses can engage in corrupt activities such as receiving money for dead souls, receiving per capita funding and not complying with the requirements. Also, in recent years, there have been increasing cases of contractors agreeing to minimum cost recovery periods to ensure a quick return on the money invested in the project. This put a strain on state and local budgets. Moreover, this increased corruption due to the fact that there were some contractors who paid bribes to minimize the time frame for compensation. To solve this issue, 2 years ago the state amended the law on public-private partnership. Now, investment expenses are reimbursed for at least 5 years. The reimbursement period is calculated individually for each project. A financial and economic model is formed, the invested funds are calculated, the complexity of the project, the payback period and other components are assessed (G.Kiikova, interview, February 9th, 2024).

To sum up, corrupt activities can be faced by both the state and private businesses. Both of them understand that this decreases the attractiveness of the PPP mechanism for businesses and decisive measures must be taken to reduce the level of corruption on both sides.

5.3.6 Financial challenges

Having all above-mentioned challenges, we see that all of them lead to financial challenges. However, there are other financial difficulties such as high initial costs, low per capita funding and no return on the investment for renters. All these financial challenges are mostly faced by private businesses. As it was mentioned by the lawyer, Aiman Omarova, “in most cases, the principle of equality of partners in PPP, which was agreed in the contract, is violated and private businesses face more challenges than the state” (A. Omarova, interview, February 10, 2024). This was also emphasized by the owners of kindergartens: “private parties face more financial challenges under PPP contracts than the government. This makes PPP unattractive for private businesses” (owner of kindergartens).

Firstly, PPP is considered an expensive project with high initial costs. Despite the fact that the land is provided by the state, the construction, lease, operation of the building requires a significant amount of money. If businessmen do not have such finances, then they are forced to take out a loan. To take a loan, they should have a good credit history and ability to pledge property which is difficult for most businesses (owners of kindergartens). A PPP project is considered expensive and it is profitable only in the long-term. “PPP projects can be profitable only in the long-term, but not all businessmen are ready to enter with high expenses and work at a loss” (Z.Zhumagulov, interview, February 19, 2024). This issue is an urgent problem that makes it difficult for entrepreneurs to open a kindergarten. In this regard, the government is going to introduce a lending program with low interest rates for standard kindergartens. According to the chairman of the Entrepreneurship Development Department of Astana Akimat, Khalel Akimzhanov, the state plans to provide a loan at 6% per annum for the implementation of the kindergarten construction project using a PPP mechanism (K.Akimzhanov, interview, March 1, 2024). According to him, this mechanism will allow attracting private businesses to PPP projects in the field of preschool education.

Secondly, private businesses and state representatives agreed that per capita funding is low for Astana. Per capita funding is universalized throughout the country and its amount is 54,506 tenge. If this amount is good money for some regions, it is not enough for Astana considering the rental, operational, maintenance costs, teachers' salaries and more. Private parties stated that “there is a huge difference between the same amount of money in

different regions and per capita funding is not enough for PPP kindergarten in Astana” (owners of kindergartens, personal communication, February 28, 2024). In order to make the PPP mechanism more attractive to private businesses, experts suggested differentiating the amount of per capita financing depending on the region. The state representatives (akim of Nura district, head of the Department of Education, head of the Department for Investments and Entrepreneurship Development) agreed and stated that this decision is under consideration.

Lastly, opening a kindergarten under PPP mechanism can be more difficult for those who rent commercial premises than for those who build standard kindergartens. Those who build can return their investment costs and also can receive per capita funding in the amount of 54,506 tenge. Meanwhile, those who rent commercial offices receive only per capita funding, since the cost for rent is included in the amount of that funding. However, as it was mentioned before, the amount of per capita funding is not enough to provide all the expenses including teachers’ wages, maintenance and equipment costs and others. Therefore, private enterprises renting commercial facilities said that it would be good if the state reimbursed some part of the rent in the early years of the project and did not include it in the amount of per capita funding (owners of kindergartens). Government officials also mentioned this issue and agreed that there should be help for those who rent offices.

It can be noted that the main concern of private businesses is finance and above-mentioned challenges such as bureaucracy, strict requirements, land unattractiveness, and economic factors are associated with financial challenges. Financial challenges such as high initial cost, low per capita funding and lack of return on investment for renters also significantly affect the attractiveness of the PPP mechanism for private businesses. There are some other financial challenges that were discussed in the interview, but we have selected the most important and most frequent mentioned ones.

5.4. Interpretation of Findings within the Conceptual Framework

Based on our interviews, we found that there is conflict of interests between the principal (government) and agent (owners of kindergartens) which leads to the problems of moral hazard and adverse selection. The problem of moral hazard can be seen from the interests of private businesses to reduce the tendering process and to mitigate the requirements and from the interests of the government to shift more responsibility to the

private party. Private business pursues its own interests, such as faster return on investment and increased profits neglecting the quality of preschool education and child safety. While the state pursues its own interests, reducing responsibility and, as a result, problems for itself and shifting them onto the shoulders of private business. This makes PPP unattractive for private businesses. The interests of private business, such as shortening the project implementation period, can also exacerbate the problem of adverse selection. The government has limited information about private partners, and such processes are necessary to increase the amount of information and select the most appropriate party for the project in order to avoid poor quality services and outcomes for the public. To solve the problem of moral hazard, the government should incentivize private parties and create mutually beneficial conditions in the contract where the responsibilities and challenges will be shared by both parties. The government should provide financial assistance and to carry out the unannounced inspections of kindergartens to make private businesses comply with requirements and engage in the tendering process. The problem of adverse selection cannot be totally solved since the government cannot acquire complete information about private businesses. However, it can increase the amount of information through transparent and long tendering processes, open communication.

It is clearly seen that the issues of moral hazard and adverse selection in Principal-Agent theory can be solved by creating mutually beneficial and equal conditions for both parties.

VI Limitations

The limitations we faced were mostly during the data collection process. They did not significantly limit our research, but were the cause of many misleading judgments made at the initial stages of data collection. The first thing that limited our actions was the small rate of response. Many kindergarten owners did not agree to interviews due to their concern about potential consequences like unplanned inspections from the government agencies. Many were afraid that their interview would then be published and they would become the object of checking.

The second limitation we struggled with is the lack of full-fledged statistics. For example, there is limited data in the open sources on the number of kindergartens which worked under the PPP mechanism for the previous years. This did not give us the opportunity to provide comparative analysis of the dynamics of the number of opened and closed public-private partnership kindergartens for previous years.

Lastly, we have faced an issue of potential biases of respondents. Government officials are very careful in their words, as the slightest mistake or an incorrect statement may negatively affect their position or career. In this regard, some government officials, not wanting to compromise themselves, were talking about the effectiveness of the PPP mechanism, without objectively mentioning the issues and gaps it has.

VII Policy recommendations

7.1 Recommendations

Respondents have come up with following recommendations on above-mentioned challenges:

7.1.1 Bureaucracy

Since there is confusion among private businesses due to the existence of two different laws (the concession law and the PPP law), it is recommended to come up with a single standard law which will erase the ambiguity between the laws. It can be done by creating a concrete systematic division of what law is responsible for what contract during the application process in the form of a questionnaire. Based on the answers, private enterprises will be provided with information on which law they should follow - the law “On concession” or “On Public-Private Partnership”.

7.1.2 Strict requirements

There is also an ambiguity between the requirements for different types of kindergartens: norms for public kindergartens vary from the norms for private kindergartens. To avoid this confusion a single standard and norms should be developed by the government. By doing so, private businesses will minimize their unexpected expenses and will be ready from the day of planning the construction of a kindergarten for any kind of requirement.

7.1.3 Land unattractiveness

Although there is a sufficient number of private businesses demanding lands within the city, the government, responsible for the supply side, does not reach their expectations in terms of the attractiveness of the land. Therefore, private companies which are interested in construction of preschool organizations should be prioritized for a “tidbit” in terms of the land.

7.1.4 Economic challenges

Indexation contract is known as the best mechanism against economic challenges since along with other typical paragraphs in contracts it takes inflation into account as well, meaning that private businesses will be secured in the case of unexpected inflation in the country and will get paid back upon the readjusted inflation rate.

7.1.5 Corruption

Although SES might be busy with the huge amount of applications and may be available to check the quality of a kindergarten at the very last days, all respondents have agreed on the fact that the sooner SES comes to check the kindergarten, the more suspicious the kindergarten will seem in terms of corruption. To increase transparency in the tendering process, application to per capita funding and within inspection processes independent laboratories may be established, which along with SES will check the quality of kindergartens and assist in above-mentioned processes.

7.1.6 Financial challenges

Selectively increasing the amount of per capita in some regions upon the average price of rents and household needed products might be one of the best options to make PPP kindergartens more attractive for private businesses. Moreover, provision of a preferential loan under 6% through the Damu Fund , which is much lower than in other available banks, will contribute to increasing the amount of private businesses willing to apply for PPP. Last, but not least, subsidizing rental costs at the initial stage of kindergartens' functioning will make PPP a more attractive mechanism as most of the expenses occur during the first months of operation.

VIII Conclusion

To summarize, the lack of places in kindergartens is considered a huge social problem. The lack of kindergartens prevent many children from getting preschool education. The problem has been relevant for many years. To tackle this issue, the state is using a model involving private business to solve the shortage of kindergartens through a public-private partnership mechanism.

The balapan program which was introduced in 2010 helped open hundreds of private kindergartens operating under government orders. However, despite the fact that kindergartens became more accessible, the issue of the shortage of kindergartens and increasing number of children on the waiting list has remained relevant. In this paper, we studied the case of Astana due to the fact that one fifth of all children queuing for kindergarten in Kazakhstan are in Astana. In this regard, we wanted to understand why the problem with kindergartens in the capital cannot be solved fully, because at this rate, it can become a big social problem in the future.

After analyzing all the secondary data collected and data obtained from interviews, we identified that the public-private partnership mechanism partially helps to solve the shortage of kindergartens in Astana, but does not solve it completely. That is, there remain some challenges that hinder full resolution of the issue. And at this point we discovered these challenges. Firstly, bureaucratic challenges lead to delays in the timing of tender projects. And those businessmen who want to make a quick profit do not want to freeze their assets. Also, the next challenge for private business is strict requirements on compliance with state standards and norms of kindergartens. In order to fully comply with them, the investor must spend large amounts of money, which becomes an undesirable financial burden for them. In addition, the Akimat for the investor using the PPP mechanism can offer land that is in the process of development. Due to the fact that in such areas the demand for kindergartens and the value of land are relatively low, investors refuse to build a kindergarten in such a place. Also, in big cities like Astana, the cost of renting commercial premises and its maintenance is high. In this regard, the unified rate of per capita financing for all Kazakhstan is often not enough to cover basic expenses. This is all compounded by corruption challenges. When opening a kindergarten for PPP, SES inspectors put forward requirements that are not prescribed in the law and delay the process

of issuing a permit for opening. This creates a favorable environment for corruption.

These challenges reduce the attractiveness of public-private partnership mechanisms for private businesses. In this regard, in order to solve the bureaucratic challenges, we recommend to come up with a single standard law which will erase the confusion between two existing laws (“On concession” and “On Public-Private Partnership”). To tackle the strict requirement issues, it is important to come up with the same norms for both public and private kindergartens. To solve the issue of unattractive lands and low demand from the side of private businesses, investors who are ready to build a preschool organization should be prioritized. In terms of economic challenges we recommend implementing indexation, which will readjust contracts upon the inflation rate. In that sense of financial challenges, we recommend to selectively increase the amount of per capita funding upon the region depending on the average price of rents and household needed products. Also, provide low interest rate loans through the Damu Fund and subsidize rental costs in the initial years of kindergarten functioning. Last, but not least, to solve the corruption challenges we recommend to increase transparency in the tendering process, application to per capita funding and within inspection processes. Additionally, individual laboratories which will assist in checking the quality of kindergartens along with SES can be established. This work revealed the inner problems that exist in the PPP mechanism within preschool education. According to our respondents, these issues are the main contributing factors in the issue of shortage of places in kindergartens in Astana. The work contributes to future research and can be used by government agencies to design solutions to the studied problem. For further research, it would be better if there would be a full-fledged statistics on PPP projects.

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Appendix

Questions asked on the interviews:

For government officials/experts:

- How would you describe the situation with the lack of places in kindergartens in Astana?
- What measures are being taken to solve the problem?
- How does PPP work in preschool institutions in Astana?
- How does PPP cope with the problem of shortage of kindergartens in Astana?
- What difficulties arise when opening kindergartens under PPP?
- Why, even if the PPP reduced the shortage of places in kindergartens, is the problem still relevant?
- How did the Balapan program work in solving the shortage of places?
- Why did the “Balapan” program not continue?
- What recommendations could you give to maximize the provision of places in kindergartens?

Questions for kindergartens:

- How would you describe the situation with the lack of places in kindergartens?
- What measures are being taken to solve the problem?
- How does the PPP process for preschool education work in Astana?
- How does PPP cope with the problem of shortage of kindergartens in Astana?
- What difficulties arise when opening kindergartens under PPP?
- Why, even if the PPP has reduced the shortage of places in kindergartens, is there still a problem of shortage of places?
- What advice would you give to improve PPP in preschool institutions?