

Original Article

# Risks Facing Implementation of PPP in Municipalities in Jordan

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**Abstract** - *The partnership between Public and the private sector is of great importance to improve the quality of services, the sustainability of projects, and to improve the efficiency of investment. Since the municipalities in Jordan do not have sufficient experience to deal with this type of investment, As well as lack of knowledge of the expected risks from implementing the partnership, and how to manage it, also not knowing what is the optimal method For partnership in the event that investment financing was through the municipality, this study came to shed light on partnership countries experiences and potential risks associated, as well through conducting interviews with some investors from the municipalities Concerned, and representatives from municipalities, Key policy recommendations are: 1) It is important for municipalities to begin identifying key risks, preparing risk map, risk matrix, and considering their potential allocation before partnership tendering process, 2) It is important to invest more time and funds to prepare adequate studies in order to prepare detailed PPP design, before launching the tender, 3) Choosing the strategic partner must be prior to starting with the bidding for design in order for the investor to have a major role in choosing the design for the project.*

**Keywords** - *Public-Private Partnership, Risk Management, Municipality, Project, Jordan.*

## I. INTRODUCTION

The goal of public-private partnerships is to change government activity from operating infrastructure and public services, to focus on setting policies and strategies for the infrastructure sector and monitoring service providers to enhance and develop these services. It also aims to take advantage of the administrative and technical competencies, financing capabilities of the private sector, and involve it in taking risks; The public-private partnership is based on contractual arrangements between one or more government agencies and a private sector company in specific projects, whereby the private partner provides the government with assets and services, which are traditionally provided from the public sector, directly.

Since the emergence of the Syrian crisis in 2011 and the arrival of a large number of Syrian refugees to Jordan, international organizations through donor countries have

started to help the municipalities affected by the Syrian asylum through grants and aid, the goal was initially to finance infrastructure projects and assist hosting communities, but after 9 years of crisis, thinking began to change the strategy and the goal of financing to become towards financing development investment projects with the aim of providing job opportunities and revenues to assist municipalities, also to ensure the continuity and sustainability of these projects by activating the partnership with the private sector.

Although the issue of partnership with the private sector is old in Jordan, the municipalities do not have sufficient experience to deal with this type of investment, and therefore there is a lot of ambiguity in the success of the partnership, due to the limited experience of the municipalities in this field.

In a traditional project contract, the public sector has accommodated a number of types of risks: design and construction risk – delivering to cost and time; commissioning and operating risks – including maintenance; demand (or volume/usage) risks; residual value risk; technology and obsolescence risks; regulation and similar risks (including taxation, planning permission); and project financing risk.

Hence, the objectives of this study will be to prepare a recommendation on how to proceed with PPP projects Based on the experiences of countries through reviewing the theoretical aspect of the partnership, and to set the general framework for partnership between municipalities and the private sector, as well as determining the most important risks that must be taken into account in the event the agreement is signed between the parties through reviewing the experiences of countries on the issue of partnership, and determining the expected risks in addition to the results of conducting some interviews with a number of investors in the municipalities that benefit from grants and aid, and take their opinion on the most important risks expected from the application of the principle of partnership with the private sector. Finally, the study came with the most important policy recommendations for municipalities as a guide for PPP implementation.



## II. LITERATURE REVIEW

The interest has become clear in the matter of partnership between the public and private sectors because of its importance in the distribution of risks between the parties, as well as the distribution of benefits, there is an agreement in the literature that risk sharing is one of the big incentives for both the public sector and the private sector, according to Harris, PPPs are contractual relationship between the public and private sectors to take advantages of the strengths between the two parties to provide services or infrastructure in an effective manner, where private sector brings innovation, resources management, while public sector provide monitoring and controls to these contracts (Harris, 2004), The National Council for PPP of the United States of America also provided a definition focuses on that partnership is a means to resources, benefits and risks are mobilized for each government entity and the other partner, in order to achieve higher efficiency, better allocation of capital, and achieve better compliance with government rules and regulations, also the Board considers that the partnership helps to preserve and maintain the public interest through contracting provisions achieve the goals of all parties in an efficient way," Contractual arrangements, whereby that Continuously monitor and supervise the provision and management of the service provided or the development of facilities (Issa, 2018). Issa also spoke about the justifications for the partnership and summarized it to the following points: Inability of governments to achieve sustainable development on their own Increased competition pressures and lower growth rates, Financial, human and technological resources are limited in the public sector, achieving a higher value for the invested money.

PPPs may be defined as partnerships between the public and private sectors for the financing, design, construction, operation, and maintenance, and/or provision of assets or infrastructure and associated services, which have traditionally been provided by the public sector. Operation and managing any organization, public or private, involves risks and challenges, the magnitude of such risks depends on the scale of the project, the allocation of the project, the market, effective risk management involves determining and anticipation analyses and preparing mitigation procedures, in construction and operating a public building project, there is a number of risks involved, these include the risk of construction overrun, the cost may be higher than the expected cost, the cost of operation and maintenance may be greater than the what is planned, the magnitude of the demand for the product or the service that will be provided, changes in the legislation and the regulations in the country.

There was a study for Mouraviev entitled "Risk management in Public-Private Partnerships", for transitional countries, where discussed principles of risks allocation and identified approaches to risk management, comparing few ways of categorizing PPP risks. The article

emphasizes the need to focus not only on initial risk allocation in a contract between partners, but also on subsequent risk management. The article argues that risk mitigation tools such as those that may increase demand for a partnership service have to be employed as they permit to raise revenue and contribute to the overall PPP success (Mouraviev, 2012).

Finally, there is a study for Chan et al. in 2011, as the study aimed to identify and evaluate the main risks facing the public-private partnership in China in addition to ways to address those risks; Questionnaires were distributed to examine the relative importance of potential risks, The results of the study showed that the three main factors posing a risk in public-private partnership projects in China are: Government intervention and corruption, weak decision-making process, and the inefficiency of weak legislative and regulatory system, while the private sector believes that the main risks are in Construction and operation phases, in addition to economic risks (Albert P.C.Chan, 2011).

## III. MUNICIPALITIES IN JORDAN AND PPP

PPP will include different approaches to private entities partnering with municipal authorities to deliver infrastructure services, with the private sector making a long-term commitment and significant project risks. Municipal PPP is a PPP where the government entity is a municipal or local government body and where the public asset or service is a municipal asset or service (World Bank, 2019).

In Jordan, the Public-Private Partnership Law was issued in 2014, whereas the issue of partnership in Jordan started at the beginning of the year 2000, many projects were carried out through the partnership between the public and private sectors, for example, the Aqaba Economic Project for the establishment of the Aqaba Development Company, also Jordan Dubai Capital, which targeted tourism and housing investments in Dibeen and the north of the Kingdom, as well as examples of partnerships such as the privatization of the telecommunications sector and other many projects, However, the municipalities in Jordan have no real experience in partnership.

In Jordan there are 100 municipalities and a greater Amman Municipality, Local Administration Law for year 2019 clearly determines the responsibilities that are performed independently by a municipality, such duties are defined in each municipality's statutes and by law.

Given the burden that municipalities bear towards local communities, in addition to the scarcity of financial resources, most municipalities in Jordan suffer from indebtedness since the decentralization implementation in Jordan in 2015, the date of the issuance of the decentralization, scarcity of available financial resources, suffering from over employment and the increasing variable costs in their budgets represented in most of them

by the wages of their workers, this has resulted in huge financial burdens for these municipalities, which made them unable to finance investment projects. Hence, the municipalities must rethink of the investment strategy and resort to the private sector and civil society to cooperate with them in partnership as one of the solutions that can help them emerge from their financial crisis.

Implementation of PPP projects in municipalities is a big challenge in Jordan, as there is no experience in real partnership between Municipalities and private sector, So most municipal projects in Jordan are service projects such as opening or paving streets, creating public parks Keep clean and collect waste, Few municipalities have implemented some development projects, such as building commercial complexes, multi-purpose halls, or warehouses to rent to the private sector, and there is no real partnership with private sector in Municipalities, however, the direction of donors through international organizations has become to finance development projects managed and operated by the private sector, so that the project is built on land that belongs to the municipality and the expected role of the private sector as one of the forms of partnership and the simplest is to manage and operate these projects, the suitable contract that will be implemented will be operation and management contract, So that the ownership of the assets remains with the municipality after the end of the partnership contract.

#### IV. PRINCIPLES OF RISK ALLOCATION IN PPPS

In this section the study will highlight on the various kinds of risks that faces ppp projects, focus will be on the most important risks facing public and private partnership management and operation, and how risks is allocated between partners, Hardcastle and Boothroyd describe risk as uncertain possibility of something going wrong that can result in increased cost or cause delay (Hardcastle, 2003) .

The overall goal of public-private partnership is to optimize the distribution of expected risks, The motivation for using PPP models is the assumption that private companies are more efficient than public bodies, accordingly, the European Commission guidelines for successful PPPs state four objectives for risk transfer including (a) reduction of long-term project costs; (b) creation of incentives to deliver projects on time, to required standard and within the budget; (c) improvement of quality of service and increase in revenue through efficient operation; and (d) ensuring consistent and predictable profile of expenditure (EC, 2003)

Risk should be transferred to the party best able to manage it in the most cost effective manner, The optimum distribution of risks between the parties involved "the government sector and the private sector" so that it achieves the greatest return for both parties are as follows: If the risk expected to occur can be dealt with by the government sector at the lowest possible cost and the government sector has a greater ability to mitigate this risk, then this risk can be transferred to the government sector,

on the contrary, those risks that the private sector is better able to deal with and mitigate at a lower cost, then those risks must be transferred to the private sector.

The general goal of the public-private partnership is to transfer the risks that the public sector may face during project construction or implementation and operation to the strategic partner from the private sector. However, a PPP does not necessarily mean that the private partner assumes all the risks, or even the major share of the risks linked to the project. The precise distribution of risk is determined case by case, according to the respective ability of the parties concerned to assess, control and cope with this risk.

Private sector or potential operator will has an important role in different stages in the project (design, construction, implementation, funding), while public partner or the Municipality will concentrate primary on defining the objectives that will be attained in term of public interest, quality of services provided, and pricing policy, in addition to monitoring responsibility to be compliance with these objectives.

Fruitful insights of risk allocation have been provided by Lam, Wang, Lee and Tsang, where they identified seven key risk allocation criteria, first: the ability of the Party to anticipate risks, second: the ability of the party to assess the affect and magnitude of the anticipated risks, third: ability of the party to control the chance of the risk occurring, forth: the ability of the party to manage the risk in case it occurs, fifth: the ability of the party to sustain the consequences if the risk occurs, sixth and seventh: whether the party will benefit from bearing the risk; and whether the premium charged by the risk-receiving party is considered reasonable and acceptable for the owner (Lam, K. C., Wang, D., Lee, P. T. K., Tsang, Y. T. , 2007).

#### V. THE PROPOSED PARTNERSHIP MODEL AND RISKS ASSOCIATED WITH MUNICIPAL-FINANCED PROJECTS

There are several models of public-private partnership that define responsibilities and risks between the public and private sector in various forms, and these models are:

- Buy-Build-Operate (BBO)
- Build-Own-Operate (BOO)
- Build-Own-Operate-Transfer (BOOT)
- Build-Operate-Transfer (BOT)
- Build-Lease-Operate-Transfer (BLOT)
- Design-Build-Finance-Operate (DBFO)
- Finance Only
- Operation & Maintenance Contract (O & M)
- Design-Build (DB)

Each PPP model has its strengths and weaknesses that should be recognized when choosing it, also should be applied only where suitable and when clear benefits and advantages can be demonstrated, desired impacts and benefits will influence PPP selection and design (Kavaš, 2012).

Some municipalities in Jordan are planning to implement small and medium-sized development projects by benefiting from the grants and assistance that they receive due to the Syrian asylum, heading towards the application of the partnership model between the public and private sectors, where the municipalities invest land and community infrastructure, arrange spatial planning, construction and financing, while Private investors cooperate in the design and operation of the project, projects such as (restaurant, park, shopping centre, sewing ...).

The appropriate model for this partnership is the O&M contract model, so the distribution of risks between the public and private sectors should give the private sector greater importance in the design, operation and maintenance risks, keeping in mind that the risks are distributed on a case-by-case basis according to The ability of the concerned parties to evaluate and bear these risks and expected returns. The expected risks can be summarized as a result of applying the principle of public-private partnerships as follows:

- Site risk: availability of project land, environmental issues.
- Demand risks: The difference in the expected volume of demand, in terms of quantity and quality.
- Building structure risks: Variations of assumptions regarding type or condition of existent buildings or structural parts lead to additional requirements, delay and/or additional cost.
- Tendering and awarding risks: Poor consultation, defective contract documents, an unsuitable awarding procedure, insufficient number of bidders as well as process deficiencies lead to termination or delay of the whole awarding process or one of its phases.
- Design risks: Incomplete or deficient documents (for example, technical specifications) and/or planning errors concerning content.
- Contractual risks: Inconclusive description of scope of services, performance standards or of performance limitations, indistinct regulations after termination of the contract and/or deficient documentation of stipulated performances may cause contract conflicts.
- Approval risks: Delayed issuing (or no issuing) of required adjudication, clearance and/or approval lead to additional costs or delay.
- Interface risks: Disruptions during the processing of goods and services as a consequence of the joint coexistence of the essential performance to be achieved and the performance of the private partner.
- Management risks: Defective temporal planning and/or insufficient description of the competence, the communication paths, the personnel application and resource application, or an insufficient control of subcontractors as well as the neglected controlling duties and executive functions disturb the smoothness of the project course (negative effects on the achievement production) and lead to delays or cost increases.
- Operation risks: The technical or judicial disturbances of service which hinder the performance and the availability, quality or quantity of the services to be rendered.
- Risks arising from change in service standards: Unforeseen changes of the service standards (functional space planning program, space allocation plan, and facilities, constructive and operational demands of the user) during the construction and operation period by the principal or user require the reworking of the planning or rebuilding and change-over measures.
- Maintenance risks: Faulty or omitted inspections, servicing and repairs lead to secondary damages, cost increases or delays.
- Vandalism risks: Non-operational, deliberately caused damages (e.g. theft, destruction) lead to additional necessary measures, costs not calculated as well as delays.
- Inflation risks: Inflation-conditioned undeterminable divergences between actual and planned costs or services worth the cost.
- Risk of the principals' insolvency: The principal cannot pay his bills of debt, or at least not on time.
- Income risks: Revenue from the use (e.g. entrance fees) deviates from the estimated revenue.
- Risks of contractors' insolvency: The insolvency or the breakdown in service of one or several private project partners hinder the handling of the project and lead to delays and/or additional costs.
- Force majeure: Effects of force majeure (natural disasters, war etc.) damage or destroy the project.
- Exploitation risks: Uncertainty about the market value of the object of the contract at the end of the contract (at the end of the contract period or with premature termination of contract). (Leidel, 2009)

After we reviewed all forms of expected risks as a result of applying the partnership between the municipalities and the private sector, so that the private sector manages and operates the project proposed by the municipality, the municipality must work to define the most important risks expected to implement the project and distribute it optimally in order to reach the greatest maximization of the money spent on investment by using risk management process, which includes Identifying risks (profiling and risk mapping) ; assessing them; forecasting future frequency and severity of losses; Once risks are evaluated and forecasted, loss frequency and severity is used (vertical and horizontal lines) in a risk management matrix, to designate risk exposure. Mitigating risks; finding risk mitigation solutions; creating plans; conducting cost-benefits analyses; implementing programs for loss control and insurance.

The results of the interviews indicated with mayors and potential investors from different sectors in the concerned municipalities, when they were asked about the most important risks expected from implementing the partnership with the private sector, private sector perceptions was that the municipality may interferes in the

management and operation of the project upon completion, potential market changes, and variations of demand for products, regarding the financial aspect, the actual operating and maintenance costs can be higher than estimated when studying the project, Likewise, the real project costs may be higher than the estimated costs of the project. Also, there is a risk in the project's success related to choosing the location of the project, if not in agreement with the private sector, as well as the non-involvement of the private sector in the design of the project, not taking in considerations precautionary and environmental safeguards while implement the project, finally unclear project objectives is vital risk, while Mayer's and municipalities officials considered that failure to find a suitable partner was one of the most important risks that may face municipalities, fear of project sustainability, lack of experience of the private sector in managing investment projects are the most risks may face municipalities in implementation public private partnership.

In order to obtain a clear agreement and successful risk management for partnership between the parties concerned, it is very important to meet a particular requirements such as, Reducing complexity between parties, Joint agreement on expected risks, clarification and acceptance of views of interested parties, building on a common understanding of the risks, opportunities and their nature, Providing step-by-step directions to describe how to deal with the situation, enhancing available information, etc.

It is generally believed that the main criterion for achieving value for money in public-private partnerships is the transfer of appropriate risks to the private sector, the private sector pricing risk based on the likelihood of the risk and its potential impact on costs and / or revenues. A central concept here is that if the private sector is better placed than the public sector to manage a risk, or in some other way, the private sector will price that risk at a lower level than the public sector, giving rise to improved value for money, as a result of this hypothesis, each time a risk is transferred to the private sector that it is either unable to manage or is no better able than the public sector to manage, the value for money of the project will tend to decrease (Andersen, 2000).

When determining the risks and redistributing them with the private sector, if the municipality retains too much risk, the project loses value otherwise, transferring too much risk to the private partner can increase the cost of capital and even result in project failure, Also the potential investor must be compensated for the risks he will incur as a result of managing and operating the project, therefore, the municipalities must manage the risks wisely and objectively enough to reap the best revenue from the partnership.

As it is mentioned earlier in this study that the most suitable model for partnership in Municipalities is operation and maintenance (O&M) model, Municipalities

should focus on drafting the contract and preparing for the identification of the most important potential risks that will face projects during the implementation in cooperation with the private sector, especially with regard to the operation and management of projects. Where a private entity provides some operation and maintenance services for a fee, usually based on delivering satisfactory services, the literature on the topic of partnership commends the specific and better-tuned services through tight contracts.

The term "management contract" has been applied to cover a range of contracts from technical assistance contracts through to full-blown operation and maintenance agreements, the main common features are that the awarding authority engages the contractor to manage a range of activities for a relatively short time period (2 to 5 years), management contracts tend to be task specific and input rather than output focused, operation and maintenance agreements may have more outputs or performance requirements. The simplest form of management contracts is the contract where the project owner pays the private sector operator a specified amount of money by awarding authority for performing specific tasks according to the agreement between them in exchange for the operator managing and operating the project regardless of the expected returns from the project and without taking any of the expected risks, Where the management contracts become more performance-based, they may involve the operator taking on more risk, even risk of asset condition and replacement of more minor components and equipment.

The key features of management/ Operation and maintenance contract that municipalities should take care while preparing for contract are:

- Contractor to manage a range of activities
- Generally short term, usually for two to five years
- Limited potential for improvements in efficiency and performance although more sophisticated management contracts (which are often called operation and maintenance contracts) may introduce some incentives for efficiency or improved bill collection, by defining performance targets.
- Operator is usually paid a fixed fee to cover its staff and expenses, there may also be a performance based fee and Severed fines for failure to achieve performance parameters.
- Can be useful where condition of assets is uncertain that the private sector would be unwilling to accept more extensive risk.
- Some may also include obligations on the private operator to operate and maintain the assets, sometimes extending to bearing the cost of routine replacement of small, low value parts of equipment. Such features require more monitoring to ensure that the outputs are being achieved and usually involve higher establishment costs.
- Usually no transfer of employees to the contractor, the contractor will merely add a layer of management over

the existing utility structure; this often causes problems if the staffs of the utility still look to the awarding authority, their employer, for instructions, enforcement of discipline by the private operator may also be difficult (WB, 2019).

## VI. POLICY RECOMMENDATIONS

Based on literature review and the experiences of countries regarding the issue of partnership between the public sector and the private sector, identifying and managing potential risks, and distributing them among all participating parties, as well as the results of interviews with stakeholders from the private sector and municipal representatives, the study recommends the following:

- It is important for municipalities to begin identifying key risks, preparing risk map, risk matrix, and considering their potential allocation before partnership tendering process.
- It is important to invest more time and funds to prepare adequate studies in order to prepare detailed PPP design, Key performance indicators as a monitoring tool for private sector before launching the tender. Better planning will avoid costs overruns.
- Choosing the strategic partner must be prior to starting with the bidding for design in order for the investor to have a major role in choosing the design for the project.
- The duration of the management contract should be proportional to the extent to which the private sector takes risks and the extent of its financial contribution to the project.
- To attract more actors to the market municipalities should facilitate investment opportunities and balance risk-taking between the parties, in the interviews

contractors expressed their wish for longer-term agreements: in their opinion, these can yield incentives for investments and expansion, which may generate favourable outcomes.

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