



A Disclosure Framework to Enhance Accountability and Transparency for Public-Private Partnership (PPP) in Egypt: With a Case Study

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**A Disclosure Framework to Enhance Accountability and
Transparency for Public-Private Partnership (PPP) in Egypt:
With a Case Study**

Dr. Sameh Abdelsalam Mustafa and Dr. Aml Hussein Mohammed

Abstract

Purpose: While PPP have been widely researched in many aspects, private partner disclosure of PPP information has not been addressed. This study aims to provide a comprehensive framework for the disclosure of information on PPP projects in Egypt, to contribute to filling some gaps in research, and to enhance accountability for PPP projects in Egypt.

Design/methodology/approach: The disclosure framework is designed based on the main drivers for disclosure, the main factors that are directly related to the disclosure requirements under the Egyptian Accounting Standard (EAS) No. 44 Disclosure of Interests in Other Entities, and the different uses and categories of information users. With a focus on the utilities sector in Egypt, a case study approach was used to implement the disclosure framework.

Research limitations: Although all the elements of disclosure are very important, researchers have focused their attention on those elements that deserve more attention from the point of view of the PPP and related to disclosure requirements under EAS 44.

Originality/value: The main contributions made by this paper relate to achieving compliance with disclosure requirements under EAS 44 in the proposed framework, as well as providing important insights for fruitful directions that future research can take to investigate the extent and quality of disclosure by private sector partners.

Keywords: Public-Private Partnership (PPP), Disclosure framework, Accountability, Transparency, The New Cairo Wastewater Treatment Plant (WWTP).

1. Introduction

For nearly three decades, the public-private partnership (PPP) has gained global recognition and increasing importance as an institutional arrangement that can be taken to deliver and finance public utilities and infrastructure projects (Narbaev et al., 2019). Such arrangements have been adopted in many countries (Sciulli, 2007; Musawa, 2017; Saeed et al., 2018), including Egypt (see table 1). Some countries have chosen this approach because of budget constraints and ineffective public procurement, while others have chosen it for its operational and administrative efficiency and active private sector participation (Narbaev et al., 2019). The PPP was officially launched in Egypt in 2006, an example is the New Cairo Wastewater Treatment Plant with an investment cost of EGP 786 million (PPP Central Unit, 2009; World Bank, 2013).

There are many reasons why governments engage in PPPs, using this alternative procurement mechanism helps bridge the infrastructure deficit (Hodge et al., 2010), achieve improved value for money, or improve services with the same amount of money (Reynaers, 2013). In general, PPP fills the void between government projects and the government's commitments to the public to provide and finance public utilities and infrastructure projects (Grimsey & Lewis, 2005).

Although some may consider PPP as a new version of privatization, PPP is not, because the government retains the ultimate responsibility, while in privatization the government has no direct role in the ongoing operations (Grimsey & Lewis, 2005). It can be said that partnerships represent the second generation of policies by the government to provide goods and services (Khanom, 2010). In contrast to the first generation, PPP involves sharing responsibility and risk in a collaborative framework, using the best skills, knowledge and resources available in the private sector to deliver value for money in the provision of infrastructure (Grimsey & Lewis, 2002).

Nevertheless, there has been a lot of criticism for this new form of procurement. The long-term contractual nature of PPP leads to difficult financial issues (Grimsey & Lewis, 2002), particularly with regard to accounting, recognition, information disclosure, and taxation (Heald & Georgiou, 2011). Empirical evidence from the United States, the United Kingdom, Canada, Australia, South Africa, and Malaysia revealed that the PPP was noteworthy due to lack of information or insufficient disclosure (Sciulli, 2007; Heald & Georgiou, 2011; World Bank, 2016; Musawa, 2017; Saeed et al., 2018; Viana et al., 2020). Traditional disclosure models may not be adequate for accountability of private sector entities. Hence, a new disclosure framework is required that clearly identifies disclosure elements for private sector entities.

Accountability and transparency have broad economic and social purposes and objectives because many groups have a legitimate interest in knowing the activities and processes. A misconception about PPP is that it relates primarily, and perhaps only, to private sector financing of public infrastructure. In fact, financing is only one component. The essence of the PPP is that the government does not buy an asset; but it buys a service under specific terms and conditions. If an effective PPP policy can be developed, one that provides adequate accountability and transparency and meets public interest criteria, the government has the option to provide and finance both the infrastructure and services on its own or contract with the private sector to provide infrastructure and services.

The increasing prevalence of PPP in many countries, including Egypt, for the provision of public services raises questions about accounting and disclosure. For a long time, there has been a paucity of literature and guidance on practice in PPP disclosure and a wide gap in the disclosure mechanics by practitioners within governments and the private sector (World Bank, 2016).

In August 2015, the World Bank (WB) developed a framework for PPP disclosure titled “A framework for disclosure in public-private partnership projects”. According to the World Bank (2016), the recommended framework is designed in response to the lack of comprehensive PPP disclosure policies and guidelines that government used to report on PPP transactions. In line with arguments about the need for more disclosure of PPP information, this study addresses the problem of insufficient PPP disclosure by private sector entities in Egypt, with a particular focus on mandatory disclosure requirements.

The rest of this research is organized as follows. Section 2 presents the literature review and research problem. Section 3 provides a background on PPP. Section 4 presents the performance of PPPs in Egypt. Section 5 introduces the design of the PPP disclosure framework. Section 6 provides the proposed disclosure framework. Section 7 presents a case study of the New Cairo Wastewater Treatment Plant (WWTP). Section 8 presents findings and discussion. Finally, Section 9 presents the conclusions.

2. Literature Review and Research Problem

Alliances and joint arrangements are a key strategic tool for facing competition, as they contribute to increasing competitiveness of participating organizations (Caperchione et al., 2017). The financial consequences of PPP should be reported in the company's financial statements so that investors, lenders or third-party users can evaluate the companies' performances in such arrangements.

The World Bank (2016) has developed a framework for disclosure in PPP Projects, which is a systematic framework for proactive disclosure of PPP information. This is accompanied by two additional documents, jurisdictional studies and good practice cases, which provide background information and resources that complement the objectives of the framework, in addition to a

database on disclosure practices followed in different countries. The developed framework by World Bank (2016) did not include disclosure of information to the private sector entities, but to public entities.

Mohy El Din's research (2017) presents a framework approach for PPP projects in Egypt, to contribute to the successful implementation of PPP projects. The framework is divided into three main pillars which are the technical structuring of the project, financial modeling, and structuring of the procurement process. The three pillars are divided into a series of steps that make up the framework. Each pillar had a research methodology followed by an application on real cases, but the framework did not address how PPP information would be disclosed.

Musawa et al., (2017) investigated the extent and quality of voluntary disclosure of PPP information by private entities. The study focused on the 2015 annual reports of 11 construction companies. The study indicated that the extent and quality of voluntary information disclosed by the private construction companies was low.

Samir and Maher (2018) analyzed the role of public private partnership in Egypt in terms of developing meaningful cooperation between the governments and private sector companies in a way that enables the provision of high-quality, cost-efficient public goods, services and facilities. The study indicated that there is a need to develop a common vision between both public and private entities that can be built using good governance, sound management, transparency, commitment and trust. Despite this, the study did not provide a framework for this role that PPP projects play in Egypt or how disclosed PPP information.

Additional literature on PPP disclosure (e.g., Heald, & Georgiou, 2011; Toms et al., 2011; Viana et al., 2016; Opara & Rouse, 2018; Helmy et al., 2020) addresses factors that impede the disclosure of PPP information such as technical accounting issues, lack of corporate governance and poor risk reporting, commercial confidentiality clauses in the PPP contract, information asymmetry by the private sector and restriction of access to public information due to legislative acts.

The review highlights that there is a wide gap in the literature and guidance on policies and practice on the disclosure of PPP within the private sector. From this, there is a need to design a PPP disclosure framework for private sector entities based on the objectives, drivers, standards and the uses of the information disclosed. This research contributes to the PPP literature by developing a comprehensive disclosure framework for PPP project information for private sector entities.

3. Background of the PPP

Recently, the concept of financing infrastructure projects has devolved around the world. As the government is no longer the only provider of public services, the Public-private partnership (PPP) has been recognized as an important contribution in the provision of infrastructure systems and public services (Mohy El Din, 2017).

The partnership between the public sector and private sector has two main drivers, the first of which is the financial driver that allows the public sector to make a capital investment without incurring any loans (Samir & Maher, 2018). In many countries, the PPP scheme has been developed primarily due to financial lack of provision of public infrastructure and public services. It has demonstrated the ability of the private sector to add financial resources and operational efficiencies to projects (Caperchione et al., 2017). The second is the technical exploitation of the expertise and technical

capabilities of the private sector in providing a more advanced public service. In addition to the government's need for financial resources, the competencies and expertise of the private sector are another reason for the adoption of PPP (Irimia-Diéguez & Oliver-Alfonso, 2012).

Governments and global organizations use different definitions of PPP. The review of the literature indicates that there is no consensus on the definition. However, there are common traits across many approaches in addition to the distinctive features (Khanom, 2010). This paper adopts the definition of the World Bank, which generally defines a PPP as a long-term contract (including concession contracts) between a private party and a government entity to provide a public service or asset, in which the private party bears the risks, and management responsibility (World Bank, 2016).

The PPP increases the efficiency of infrastructure projects through collaboration between the public and private sectors, risk and reward sharing, sharing of skills, expertise, and multi-sector financing to achieve desired outcomes (Caperchione et al., 2017; Mohy El Din, 2017). In addition, PPP offers better quality of the infrastructure, distribution of cost over time to the government, as well as a fair profit to the private sector during the concession period. The skills and expertise of the private sector improve the cost of the project, thus providing value for money to the government. Throughout the concession period, the government retains control over the provision of the specified level of service (Samir & Maher, 2018). Thus, the role of the government in this case becomes only coordination with the private sector (Irimia-Diéguez & Oliver-Alfonso, 2012).

PPP contracts take many forms and can be applied through a variety of methods that vary according to the political environment, the nature of the assets, and the degree of participation, whether from the public or the private sector (Andon, 2012; Caperchione et al., 2017). Various terms are used to

describe such private participation, such as a Private Finance Initiative (PFI) and Concession Models (i.e., Build-Operate-Transfer (BOT)), but PPP is a generic term for such long-term public-private cooperation (Khanom, 2010). The United Nations has classified PPP into two broad categories: the Concession Model and the Private Finance Initiative (PFI) Model. Concession model is contractual arrangements whereby the public sector grants a facility to the private sector, which operates the PPP for a specified period. Concession models are financed by user fees (user pays) such as in drinking water, gas and electricity, and public transport projects. In contrast to the concession model, PFIs are privately financed contracts for public facilities and public works but are paid by a public authority rather than private users, such as in public lighting, hospitals, schools, and roads with shallow toll projects (UNECE, 2008).

Many researchers and practitioners have described the advantages of PPP (Andon, 2012; Caperchione et al., 2017; Mohy El Din, 2017; Samir & Maher, 2018). Some of these advantages are risk transfer, better value for money, more convenient financial analysis, and enhanced public-private partnership (Helmy et al., 2020). A well-managed and regulated PPP can help achieve the following objectives:

- Utilizing private sector technology and innovation in providing more efficient and operationally better public services.
- Motivating the private sector to complete projects within the agreed budget and time frame.
- Developing the capabilities of local private sector and ensures effective transfer of skills by engaging with major international companies in joint ventures.
- Supporting the current public sector capabilities to meet the growing demand for more developed infrastructure services.

- Creating long-term value for money by partially transferring risk to the private sector (World Bank, 2016).

Furthermore, the PPP is unique in that it uses private sector financing to design, construct, maintain and operate the infrastructure. It includes the capital component and an on-going service delivery component, which are paid for over the long run through a series of payments from the government similar to lease payments and/or in combination with a user-pays system (Reynaers, 2013).

It should be noted that PPP carries risks due to the complexity of contracts, long-term concessions, inaccurate forecasting of investments and market demands, and uncertain operation ability of the facility and stakeholders involved in the process (Reynaers, 2013; Samir & Maher, 2018; Mayer et al., 2019; Helmy et al., 2020). All these factors create a lot of risks that must be taken into consideration when dealing with PPP projects. This requires a full study of all factors (Helmy et al., 2020). In addition, there are also political risks associated with PPP arising from dealing with the government. Therefore, proper allocation of risks in PPP projects is very essential so that each party can develop a strategy to manage these types of risks to ensure the success of the project (Mohy El Din, 2017). In addition, there are the taxation implications with respect to PPP that have not yet been resolved (Grimsey & Lewis, 2002).

4. Performance of PPP in Egypt

In recent years, PPP projects have been successful in many countries such as the United Kingdom, Germany, the Netherlands, South Africa, and the United States (Samir & Maher, 2018). Reliance on PPP contributes to improving infrastructure construction and maintenance, creating good opportunity for managing public sector facilities, expand the economy, creating local long-term financing markets, and stimulating job creation (PPP Central Unit, 2009).

International experience shows that 10-30% of infrastructure capital needs can come from the private sector through PPP if an appropriate regulatory framework is put in place (Mohy El Din, 2017). It is estimated that Egypt targets 10-15% of its infrastructure needs through PPP (PPP Central Unit, 2009).

In Egypt, PPP projects have grown over the two past decades with a growing interest in private sector participation to cover the growing needs of the Egyptian government for infrastructure projects (World Bank, 2013). In 2006, the government adopted a new long-term policy in order to increase participation of the private sector in public services by increasing private sector spending versus public spending (Hannoura, 2008; World Bank, 2013; Mohy El Din, 2017; Samir & Maher, 2018). Table 1 provides a summary of PPP projects implemented and ongoing in Egypt over the past ten years.

The Egyptian government has taken an initiative to introduce the PPP policy and program through the establishment of the PPP Central Unit under the umbrella of the Ministry of Finance to coordinate the phases of the PPP project across the relevant ministries or public authorities (Hannoura, 2013). The PPP Central Unit acts as a public face of PPP initiative, and responsible for developing the PPP program in Egypt to meet the needs of the public sector (Hannoura, 2008). The role of the PPP Central Unit can be summarized in the following (PPP Central Unit, 2009):

- Develop a national framework for the PPP policy, and appropriate guidelines and methodologies for implementation in Egypt, and draft standard contracts and project documents.
- Coordinate PPP programs and processes across line ministries, the private sector and the funding market.

- Submit a report to the Ministerial Committee for projects approval and recognition of issues that may impede the PPP programs.
- Identify PPP able projects as part of Line Ministries' 5-year strategic plan.

Table 1. Summary of PPP projects in Egypt over the past ten years.

<u>The PPP Projects</u>	<u>Launch Date</u>	<u>Approx. Value USD in Billion</u>	<u>Project Duration</u>
<u>Social Infrastructure:</u>		<u>6.12</u>	
- <u>Education Sector:</u>		5.00	
1800 Public Schools	Nov. 2007		15 Years
- <u>Health Sector:</u>		1.12	
Educational Medical Facilities	May 2008		20 Years
General Medical Facilities	Dec. 2008		20 Years
<u>Utilities Sector:</u>		<u>2.20</u>	
- <u>Wastewater Treatment Plants:</u>			
New Cairo	Oct. 2008		20 Years
Abo Rawash - Giza	Dec. 2008		20 Years
Gabal Asfar - Cairo	Jan. 2009		20 Years
Helwan	Jan. 2009		20 Years
6th October city - Giza	Oct. 2008		20 Years
Nahia - Giza	Oct. 2008		20 Years
- <u>Transportation Sector:</u>		<u>7.00</u>	
Cairo / Alexandria free road	Oct. 2008		20 Years
Port Said / Matrouh free road	Oct. 2008		20 Years
- <u>Railway Projects:</u>			
Cairo / 10th of Ramadan City	Dec. 2008		20 Years
Alexandria / Borg El Arab	Dec. 2008		20 Years

Source: The PPP Central Unit.

On October 3, 2018, after a reviewing legislation and standard administrative contracts in many European and other countries, a new Egyptian law for public procurement, law No. 182 of 2018, was issued, regulating contracts entered into by public authorities. The executive regulations of the law were published on October 31, 2019.

PPP projects do not reduce the responsibility of Line Ministries, only the methodology of procurement is different (Hannoura, 2013). Under the PPP contract, the government retains full strategic control over the service, follow up their implementation, secures the new infrastructure until they return to the government at the end of the contract term, but allocates performance risks to the party capable of dealing with these risks (Hannoura, 2008; PPP Central Unit, 2009; World Bank, 2013; Samir & Maher, 2018).

5. Designing the PPP Disclosure Framework

This section presents the objectives, approaches, disclosure drivers, justifications and requirements for the proposed disclosure framework.

5.1. Objectives

The main objective of the PPP disclosure framework is to provide a systematic structure for disclosing PPP projects, to help enhance governance, accountability, and reduce the risk of corruption. The framework suggests a holistic approach to disclosure, and the recommendations in the framework are linked to the disclosure requirements of EAS 44, as well as the factors that appear to drive disclosure (see figure 1).

Although disclosure of information in itself is useful, the current framework is expected to be of great value to many major groups of users, such as government departments, control enforcement authorities, practitioners, specialists in the public bodies, private companies, Investors, researchers, the general public and civil society, who can contribute to improved transparency of public-private partnership by playing their roles, whether they are information creators or users.

5.2. Approach

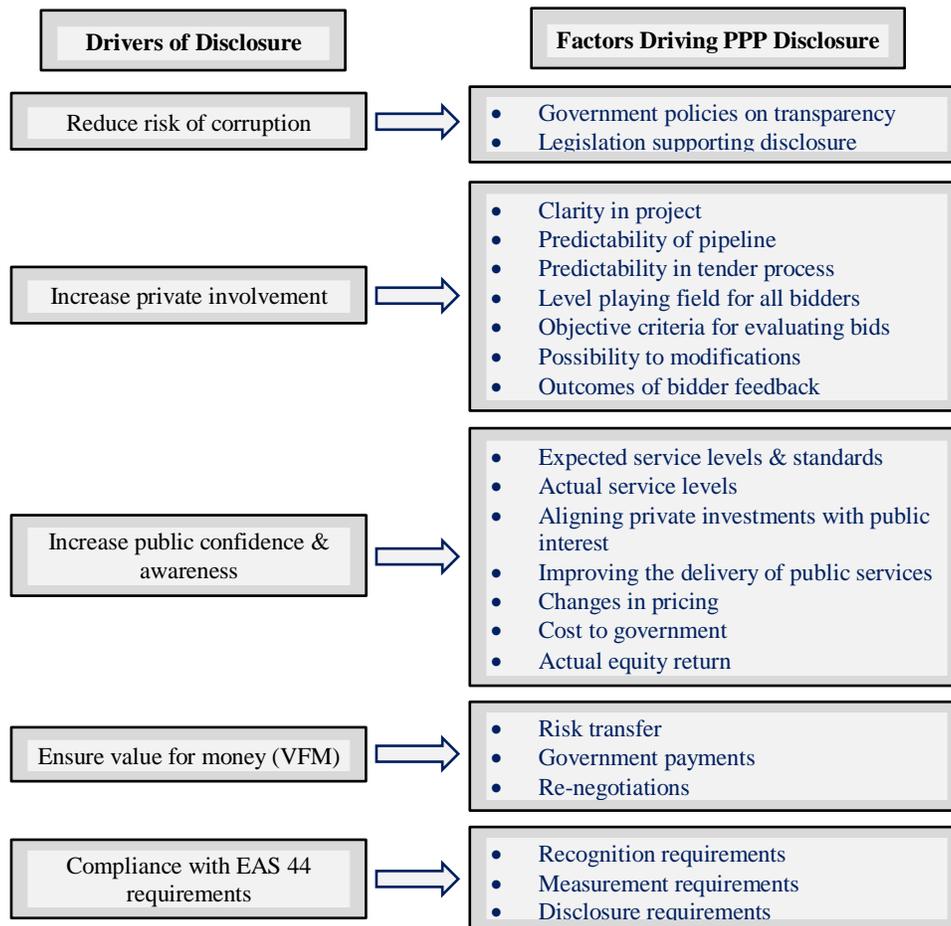
The disclosure framework is designed based on the main drivers for disclosure, the main factors that are directly related to the disclosure requirements under the Egyptian Accounting Standard (EAS) No. 44 “Disclosure of Interests in Other Entities”, and the different uses and categories of information users. The proposed disclosure framework for PPP the includes a movement from the disclosure of the basic project Information toward basic financial elements that must be disclosed in accordance with the EAS 44.

5.3. Drivers of Disclosure

The World Bank consultations indicate that PPP disclosure is affected by many drivers, such as reducing corruption risks, mobilizing private capital to invest in infrastructure, increasing public confidence and awareness, and achieving better VFM through PPP transactions. Although it is difficult to identify any of these factors as the main driver, it appears that the main driver underlying disclosure practices is to reduce corruption risks. Important factors that contribute to reducing corruption risks are the government’s policy on transparency and whether these policies are linked to the existence of legislation and standards that supporting disclosure.

Other factors can be identified under the four broad drivers of disclosure. Factors that improve private investment mobilization include (a) predictability of the PPP pipeline, (b) equal opportunity for all bidders, and (c) objective criteria for bid evaluation. Likewise, important factors that contribute to increasing public confidence and awareness include (a) aligning private investments with the public interest, (b) improving public service delivery, and (c) expected service levels and standards, among others. These specific factors contribute, to a large extent, to determining which items should be recommended for disclosure (see figure 1).

Figure 1: Public-Private Partnership Drivers of Disclosure



Source: authorial computation.

In addition, the practice of PPP disclosure has developed more rapidly in emerging countries, possibly because there are more imperatives and pressure to increase public trust, and to ensure value for money, all of which in turn are related to the larger goals of reducing corruption risks (Opara &

Rouse, 2018). To some extent, the time period during which PPP projects have been implemented also affects disclosure, but it cannot be said that the maturity of disclosure practices is wholly determined by the maturity of the PPP program (World Bank, 2016).

5.4. Justifications for Disclosure Framework

Considering the benefits of PPP disclosure, some of these benefits are summarized as follows:

- Disclosure of PPP projects makes the public sector accountable for spending and puts pressure on the government to achieve value for money (VFM).
- Disclosure of PPP projects contributes significantly to mitigating corruption risks to public investments in infrastructure.
- Disclosure of PPP projects significantly contributes to enhancing confidence in the government and private sector partners.
- Disclosure of PPP projects significantly enhances transparency, accountability in public infrastructure projects, and reduces the potential for the additional costs of corruption to be used to inflate public infrastructure costs.

5.5. Disclosure Framework Requirements

When developing a disclosure framework for PPP projects, it is important to consider the appropriate environment for implementation, and the elements that support the implementation environment can be summarized as follows:

- Make all contract documents publicly available so that they can be accessed through comprehensive databases, including feasibility reports, concession agreements, land acquisitions, etc., all in one place.

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- Provision of specific procedures of selection and contracting more appropriate to the mechanism of PPP.
 - Existence of practical guidelines with templates and a dedicated space on the PPP Unit website for reporting at the recommended time.
 - A legal framework that requires disclosure of PPP information, a clear mandate for public bodies for proactive disclosure, and pressure on the private sector to disclose specific performance information.

6. The Proposed Disclosure Framework

All information included in the proposed disclosure framework is required by the private sector. Part A contains basic information about the PPP project, Part B contains contract information, Part C contains risk information, Part D contains basic information about government support, and Part E contains a summary financial information, as shown in Table 2.

Table 2. The Disclosure Framework

A-	Basic information about the project
	<ul style="list-style-type: none">- Project name, sector, location, and dates of various approvals.- Project value, and estimated demand, and description of the services.- The proportion of the ownership or participating interest held by the entity.- Describing the nature of the activities of the project, and whether they are strategic to the entity's activities.- The project economic and social benefits.- Technical description of the physical infrastructure.
B-	Contract information
	<u>Parties and Contract information:</u> <ul style="list-style-type: none">- Public authority: name of authority, representative, contact details.- Private party: name of company, name of representative, and contact details.- Financiers: names of financiers, percentage of funding, and contact details.

Contract Milestones (Estimated and Actual):

- Date of commercial close, date of financial close.
- Construction or development start date.
- Date of construction or development completion.
- Commissioning date, contract expiry date.

Contract termination:

- Describe the main events of payment defaults and terminations.
- Status of assets, assets delivery details and any other delivery terms.
- Details of the renegotiations, the circumstances that led to the renegotiations, the Change due to the renegotiated clauses relating to roles and responsibilities, the distribution of risk, financial exposure, and any change in financial and contingent liabilities.

C- Risk information

- A list of risks with information on who bears the risks.
- A list of risks up to financial closing of construction/completion.
- A list of risks related to changes in law, taxes, regulatory framework and standards with information on who bears the risks.
- Details of market risk, financial risk, operational risk.
- Commitments related to PPP projects separately from other commitments.
- Unrecognized commitments of funding or resources relating to PPP projects.

D- Government support information

Guarantees: Types and exact details of the guarantees provided, such as minimum revenue guarantee, exchange rate guarantee, debt repayment guarantee.

Grants: Paid-in capital and revenue support during construction and operating.

Service payments:

- Total payments, the methodology for calculating payments made by a public authority to a private provider of infrastructure services.

Land leases, asset transfers:

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- Details of the land transferred under a lease contract by the government, and the terms of the transfer.
 - Details of equipment transfers and conditions of transfer.
 - Human resources/personnel transfer details and transfer terms.

E- Summarized financial information

Financial information for each PPP project:

- Shareholders' capital, percentage of ownership, and voting rights.
- Commercial lenders, institutional investors, bilateral or multilateral lenders, supplier credit, and other.
- Current assets, and non-current assets.
- Current liabilities, and non-current liabilities.
- Revenue, profit or loss from continuing operations, and post-tax profit or loss discontinued operations.
- Total comprehensive income, and other comprehensive income.
- Depreciation, and amortization.
- Interest income, and interest expense.

Performance information for each PPP project:

- Details of actual annual levels of demand.
- Details of actual annual total revenue.
- State actual year-wise performance.
- Cases of performance failure during the year and the penalty or abatement.

Source: authorial computation.

7. A Case Study – Wastewater Treatment Plant in New Cairo (WWTP)

In this section, a case study is presented to apply the previously shown disclosure framework. The case study adopted the Wastewater Treatment Plant (WWTP) project in New Cairo to implement each aspect of the disclosure framework as shown in the previous section. The data obtained in this section was collected from the International Finance Corporation (IFC) of the World Bank (IFC & Orasqualia, 2014), which acted as an adviser to the Egyptian Government on this project.

Overview of the WWTP Project

WWTP is the first PPP project in Egypt, and the project received many awards such as: Water Deal of the Year, which is granted by Global Water Intelligence in 2010, African PPP Water Deal, which is granted by Euromoney's Project Finance Magazine in 2010, Bronze Award – Middle East and North Africa, which is granted by Emerging Partnerships in 2013.

The purpose of the WWTP project is to supply the New Cairo city with a cost-effective and environmentally safe wastewater treatment facility. It also aims to support the partnership between the public and private sectors as a model for future water and wastewater projects in Egypt. The project contract was 472 million dollars granted by the Ministry of Housing, Utilities & Urban Developments (MHUUD) through the New Urban Communities Authority (NUCA) in June 2009. The contract includes the design, construction, financing, operation and management of the plant. The total period of the project is 20 years, and the ownership will be transferred to NUCA at the end of the concession period. The construction was the first 2 years (2010-2011) in addition to pre-construction costs incurred 6 months prior, and the operation phase began in 2012 for the remaining 18 years. The initial capacity of the plant is 250,000 m³/day to serve more than a million people, and the final capacity is 500,000 m³/day (Salvador et al., 2016).

The next part explains how the information for a WWTP project can be disclosed according to the disclosure framework as a case study.

Table 3. Basic Information about the Project

- The New Cairo Wastewater Treatment Plant is a plant located in New Cairo, a city created in the southeastern part of Cairo in the year 2000.
 - Orasqualia is a subsidiary of Orascom Construction and Aqualia (replaced by Aqualia New Europe in February 2015, a joint venture between Aqualia with 51% and the European Bank for Reconstruction and Development with 49%), each with a 50% share. Orasqualia was founded in 2009. Orasqualia is responsible for implementing the first PPP contract in Egypt. The contract includes the design, financing, construction, operation and maintenance of New Cairo Wastewater Treatment Plant.
 - The operation of the WWTP in New Cairo has led to four main outcomes:
 - Increasing the availability of drinking water as treated water is used for irrigation instead of fresh water.
 - The direct positive impact on human health by reducing the environmental impact of wastewater disposal in the Nile River.
 - The new infrastructure will allow wastewater sludge to be converted into fertilizer for use as agricultural fertilizer.
 - Egyptian citizens benefit from permanent and temporary jobs, and with regard to permanent jobs, there are 63 workers who performing administrative, operational and maintenance tasks, while about 1,500 workers worked in the plant during the construction period. Although there are temporary contracts, these workers can have experience in future jobs.
 - The construction process started in March 2010, until May 2012. The construction process ended with a delay for only two months, despite the 2011 political situation.
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Table 4. Contract Information

Parties and Contract information:

Public authority:	New Urban Communities Authority (NUCA).
Private party:	Orasqualia, which is owned by Orascom Construction and Aqualia, each with a 50% share.
Project type:	Large-scale wastewater treatment plant.
Project capacity:	Average daily flow of 250,000 m ³ /day.
Delivery mode:	DBFOT (Design, build, finance, operate, transfer).
Private investment:	140 million US dollars to build infrastructure.
PPP contract value:	482 million US dollars for a 20-year concession, including operational costs over a 20-year period.
Payment method:	Payment based on a wastewater treatment charge including fixed payment coverage (investment, debt, return on equity, fixed operating cost) plus variable operating charges based on volume of treated wastewater.
Duration:	20 years (2 years construction & 18 years operation).

Contract Milestones (Estimated and Actual):

Expressions of interest request:	October 2007
Bidding invitations:	December 1, 2008
Publication of final bid documents:	February 15, 2009
Bid submission deadline:	March 31, 2009
Contract start:	June 29, 2009
Financial closure:	February 3, 2010
Contract end:	June 28, 2029

Contract termination:

- Project governance was guaranteed by two governance committees that supervised the project's functioning and dealt with unexpected situations arising during the contract duration. In addition, there is a clear separation of powers between supervising units and NUCA.
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Table 5. Risk Information

Design and Construction Risk: Engineering, Procurement and Construction (EPC), a joint venture of Orascom and Aqualia, assumes these risks. Orascom has extensive experience in large construction projects in Egypt, Aqualia has previous experience in several large wastewater treatment plants. These facts mitigated the risks that Orasqualia assumed in this area.

Financing Risk: Orasqualia assumes this, which has been successful in reaching financial close in seven months. Orasqualia incurred a high cost due to devaluation of the Egyptian pound, and this had very negative consequences for the company.

Inflation Risk: Orasqualia and NUCA both bear inflation risks. Regarding inflation, the contract includes a partial annual adjustment.

Interest Rates Risk: Major and minor debts are indexed by three-year certificates of deposit of four “reference” banks every three years.

Forex Risk: At the time of signing the contract, the risks of forex trading were not seen as higher than in any other developing country. However, the risk turned out to be very high when political instability began in 2011.

Credit Risk: A direct agreement stipulated that the Egyptian Ministry of Finance would pay wastewater treatment fee if the NUCA was unable to pay them within 30 days of the bill date.

Operations and Maintenance Risk: These risks were borne by the O&M joint venture of Orascom and Aqualia.

Demand Risk: NUCA has taken on this risk, and a small portion of the SPV's revenue depends on the volume of treated wastewater.

Supply of Utilities: The electricity cost risk was limited due to the electricity bill payment by NUCA.

It should be noted that risk sharing seems reasonable, the operator bears many risks, but the demand and political risks are covered by the public sector because there is nothing the contractor can do to manage these risks.

Table 6. Government Support Information

Guarantees and Grants:

- The project is fully sponsored by MHUUD, addition to the sovereign guarantee by the government, the Egyptian Ministry of Finance will pay the wastewater treatment fees if NUCA cannot pay them within 30 days from the date of the invoice.
- The NUCA will pay the electricity transmission cost up to the maximum stipulated in the PPP agreement.
- The contract allows for a partial annual adjustment for inflation.
- The technical assistance provided by the PPP Central Unit
- The type of direct government support is revenue subsidy

Service payments:

- The project has a correct payment mechanism that guarantees the financial stability of the private partner and revenue of the public partner. Orasqualia issues a quarterly bill for its wastewater treatment service. The bill is structured into four different payment parameters:
 - Capacity charge, a fixed payment covering: (1) The total investments in design, construction and start-up of the plant and capital expenditure required during the period of operations; (2) Debt service costs, including interest payments and any other fees stipulated in the financing agreement; (3) Return on equity; (4) Premium for insurance policies.
 - Fixed operating fee, which is a fixed payment that covers the operating costs not related to volume.
 - Variable operating fee, covers the variable operating costs per cubic meter of effluent, excluding the cost of electricity consumption.
 - Pass-through fee, payment of the full cost of electricity up to the maximum electricity consumption proposed in the bid.

Land leases, asset transfers: NUCA obtained a concession to use the land from the Egyptian army, which owns the area surrounding the Cairo-Ain Sokhna Road.

Table 7. Summarized Financial Information

Financial information for WWTP project:

- SPV was established on April 9, 2009, in a PPP agreement with a registered capital of EGP 250 thousand. On September 17, 2009 the registered capital was increased to EGP 5,250,000, and to EGP 59,250,000 on December 3, 2009, to meet the debt-to-equity ratio required by the banks.
- On December 31, 2010 the registered capital was 80,250,000 EGP, with profits of 335.482,000 EGP. On December 31, 2014 and 2015 the registered capital was 236,000,000 EGP.
- A group of four Egyptian banks is offering \$103m 15-year debt package to cover 70% of the cost of the EPC. Banks include Commercial International Bank (32.77%), NSGB (32.99%), Ahli United Bank (17.12%), and Arab African International Bank (17.12%). It should be noted that banks have the right to intervene and pledge regarding in respect of the SPV shares recognized in the PPP agreement by all the parties involved under specific conditions.
- The annual interest rate applied to the first tranche of the financing was the corridor rate for overnight deposits announced by the Central Bank of Egypt two working days before the start of interest periods, plus three percentage points.
- The loan agreement included standard financial covenants for Orasqualia, for example the debt service coverage ratio, maximum values for the debt-to-equity ratio, and limits on dividends at the project company level.
- The structured debt amounted to 566 million EGP in two tranches:
 - Long-term facility (15 years) of EGP 550 million to finance up to 70% of the investment cost of the project (estimated at EGP 785.2 million, then USD 143.55 million), and the remaining 30% was owned by the SPV.
 - EGP 16 million in operation performance letters of guarantee that will be issued during the operation period.
- The low percentage of variable revenues to total revenues is due to the lack of SPV ability to affect the plant's service demand (i.e. water inflow).

Table 7. Summarized Financial Information (cont.)

- The government pays bills of exchange in Egyptian pounds.
- There are two types of indexing mechanisms to adjust the price paid by NUCA:
 - Inflation adjustment, applied on an annual basis to fixed operating fees and variable operating fees but not for capacity fees. Capacity fees represent the bulk of SPV's revenue.
 - Adjustment of interest rate changes, to be applied every three years to reflect changes in Egyptian interest rates on borrowing in Egyptian pounds (applies to the main and subordinated debts owned by the project company).

Performance information for WWTP project:

- The plant performance is the responsibility of Orasqualia.
 - In October 2013 the plant became operational, 16 months after construction was completed.
 - Orasqualia changes the line it uses in its treatment process every four years to keep the plant in proper operating conditions at the current levels of internal inflow, while Orasqualia performing the preventive maintenance.
 - The delay in the operation period was due to problems caused by the quality of the outflow. Where the New Urban communities Authority did not accept any water discharge of a quality outside the standards specified in the contract. Orasqualia, at its own cost, built a 1.3 meter-diameter, 2 km-long pipe to the nearest water treatment plant, Hassan Allam WWTP, for further treatment during the operating period.
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It should be noted that researchers were not able to obtain information about current assets, non-current assets, cash and cash equivalents, current liabilities, non-current liabilities, revenue, profits or losses from continuing operations, profits or losses discontinued operations, details of actual annual total revenues, other comprehensive income, total comprehensive income, interest income, Interest expense.

The following tables show the base values of 250,000 m³/day, variable over fixed revenue, demand and value added information.

Table 8: Base Values of 250,000 m³/day

Capacity Fee (E£/quarter)	31,272,591.25
Fixed Operating Fee (E£/quarter)	3,815,625
Variable Operating Fee (E£/m ³)	0.0355
Total Fixed Quarterly Payments	35,088,216.25
Maximum Electricity Consumption (kWh/quarter)	5,338,254

Table 9: Variable Over Fixed Revenue

	flow average m ³ /day	days quarter	quarterly flow	variable operating charge (EGP/ m ³)	total x m ³	fixed + variable	% variable /total
Dec-16	34,648	120	4,157,760.0	0.0355	147,600.48	35,235,816.73	0.42
Dec-17	40,045	120	4,805,400.00	0.0355	170,591.70	35,258,807.95	0.48
Dec-18	38,899	120	4,667,880.00	0.0355	165,709.74	35,253,925.99	0.47
Dec-19	33,625	120	4,035,000.00	0.0355	143,242.50	35,231,458.75	0.41

Table 10: Demand and Value-Added Information

Intermediate Demand		57,936,733.06
Intermediate Consumption	(Intermediate demand + public spending + gross capital formation + stock variation)	57,936,733.06
Production	(Intermediate consumption + wages + gross operating surplus + tax)	195,303,322.33
Value Added at Market Value	(employees' wages + gross operating surplus + taxes (subventions not included))	137,366,589.27

8. Findings and Discussion

Accountability and transparency are among the main objectives of PPP disclosure, as well as the many long-term and distinct benefits, such as a higher level of confidence in the fairness of the process, and the possibility to formulate improved policies and practices related to PPP in the long run. Therefore, it is necessary to overcome challenges by building the right frameworks for PPP disclosure.

Through the proposed framework, many of the challenges raised by the PPP can be overcome to achieve greater accountability and transparency, as well as a better level of disclosure of standards requirements by private partners, as an important aspect of the proposed disclosure framework, it is in line with the requirements of EAS 44 Disclosure of Interests in Other Entities.

The main objective of the proposed framework is to help promote more transparent, efficient, effective, and accountable governance of PPP programs and projects in Egypt. The evidence indicates a significant positive contribution of disclosing PPP information. Appropriate disclosure is a necessary safeguard against challenges raised by PPP, such as social and environmental impacts, public interest, accountability, hidden fiscal exposure, etc.

As shown in the case study, the proposed framework is applicable, provides a systematic structure for PPP information disclosure, and helps strengthen governance, and accountability to reduce corruption risks. In addition, it provides significant value to many major groups of users, such as government, control authorities, practitioners, investors, researchers, and the public.

The proposed framework is a hierarchical and logical framework that goes from basic to high-level elements that must be disclosed. Besides, it is a comprehensive approach to disclosure through standards, tools and mechanisms, allowing for more efficient disclosure. Given the paucity of guidance on policies and practices related to PPP disclosure in Egypt, and the wide gap in the understanding of disclosure mechanics of the private sector, the framework seeks to bridge this gap. However, it appears that the main challenge lies in the time and cost involved in establishing disclosure practices, providing information in line with requirements imposes significant costs to the private parties.

9. Conclusion

Despite the large scope of the PPP, there is a wide gap in information disclosure. This research aims to enhance accountability and transparency for PPP in Egypt. A disclosure framework has been proposed based on the main drivers for disclosure, the main elements related to disclosure requirements under the EAS 44 Disclosure of Interests in Other Entities. Subsequently, this research presented a case study of one of the utilities sector projects in Egypt, The New Cairo Wastewater Treatment Plant (WWTP), to implement the proposed framework. The results of the case study showed that the proposed framework is applicable, provides a systematic structure for PPP information disclosure, and helps strengthen governance, accountability and transparency.

The overall results of this research are consistent with previous studies. The main challenges to the disclosure framework are the time and cost involved in disclosure practices. Providing information in line with standards requirements imposes costs to the private sector partners. However, it is necessary to overcome these challenges. Another major challenge is the level of details in the disclosure framework which relied somewhat on the EAS 44, so there will always be gaps in specific cases when new types of issues arise, but broader issues can be taken care of. In addition, the standards should provide as much clarity as possible about what to disclose, when, by whom and how.

This research has two limitations. First, the researchers collected data from only one PPP project, one of the utility sector projects in Egypt. It is suggested that data be collected from other projects or sectors. The second limitation of this research is to obtain summarized financial information for PPP projects, such as current assets, non-current assets, cash and cash equivalents, current liabilities, non-current liabilities, revenue, profits or losses from continuing operations, profits or losses discontinued operations, details of actual annual total revenues, other comprehensive income, total comprehensive income, interest income, Interest expense.

Finally, the disclosure framework will remain a work in progress and will be refined based on implementation experience, as well as any significant changes in standards, and drivers for disclosure. Future research could cover other important aspects, such as investigating the level and quality of PPP information disclosure, shedding more light on other PPP information whose disclosure may be voluntary, and finally, future research could seek the views of shareholders, regulators, and end users of the PPP disclosure framework.

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إطار للإفصاح عن مشروعات الشراكة بين القطاعين العام والخاص في
مصر لتعزيز المساءلة والشفافية: مع دراسة حالة

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المستخلص العربي:

تسعى الحكومات إلى تعزيز فرص الاستفادة من إمكانيات القطاع الخاص الإدارية والتمويلية والتقنية في إنشاء وتطوير وتوسيع وتشغيل وصيانة أصول البنية التحتية وتقديم الخدمات العامة في العديد من القطاعات كالطاقة، والمياه، والصرف الصحي، والاتصالات، والنقل، وغيرها، من أجل التغلب على تحديات توفير التمويل اللازم للإنفاق الحكومي لتلبية الطلب المتزايد على الخدمات والمرافق العامة. وفي إطار توفير بيئة داعمة لتنفيذ شراكات استراتيجية ناجحة مع القطاع الخاص في مصر؛ استهدفت الدراسة تعزيز الأطر التنظيمية والمؤسسية للشراكات بتقديم إطاراً شاملاً للإفصاح عن مشروعات الشراكة من أجل تعزيز الإفصاح والمساءلة والشفافية للقطاع الخاص.

تم تصميم الإطار المقترح بناءً على الدوافع العامة للإفصاح، ومتطلبات الإفصاح الرئيسية الواردة في معيار المحاسبة المصري رقم 44 بعنوان "الإفصاح عن الحصص في المنشآت الأخرى". واستخدام الباحثان منهج دراسة الحالة لتطبيق الإطار المقترح على مشروع محطة القاهرة الجديدة للصرف الصحي بمدينة القاهرة الجديدة، أحد مشروعات قطاع المرافق العامة في مصر، كدراسة حالة. وتتمثل المساهمات الرئيسية لهذه الدراسة في تعزيز الشفافية والإفصاح والمساءلة من قبل شركات القطاع الخاص، وتحقيق الامتثال لمتطلبات معيار المحاسبة المصري رقم 44، فضلاً عن توفير إطار شامل للإفصاح يمكن للبحوث المستقبلية الاعتماد عليه لاختبار مدى وجودة الإفصاح من قبل القطاع الخاص.

الكلمات المفتاحية: الشراكة بين القطاعين العام والخاص؛ إطار الإفصاح؛ المساءلة؛ الشفافية؛ محطة مياه الصرف بمدينة القاهرة الجديدة.