THE ASSESSMENT OF PUBLIC PRIVATE PARTNERSHIP PROGRAM IN EGYPT: A COMPARATIVE STUDY WITH THE KOREAN MODEL

By

Ali Mohamed Atef Rady

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY IN ECONOMIC DEVELOPMENT

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Professor Kim, Jay-Hyung, Supervisor

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ABSTRACT

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This study aims to assess the Egyptian PPP performance and benchmark it with the Korean PPP model, taking into consideration that the Korean case is one of the standards or the best practice model, as during the last few years, South Korea is considered one of the world' top five in PPPs.

The policy makers in Egypt claim that PPPs is successful and working properly as well. In this study, the researcher tests this assumption by surveying the opinion of 23 operational PPP projects in Egypt through a questionnaire to assess the PPP performance in Egypt.

The Objective of this study is to show the reasons why the public-private partnership program in Egypt has originally been less thriving than anticipated in attracting investment to selected projects. One side of the reasons is the government's financing form and the short of funding in long-term projects which considered an obstacle to the progress of PPPs.

Egypt has carried out PPP projects in infrastructure since 1990. The most successful of these have been in the transportation sector. A new PPP strategy was initiated in 2006 and a new framework PPP law was approved by parliament in May 2010 and came into force in July 2010, this law gave some hope that things will recover and advance regarding the PPP, as it minimizes the uncertainty for investors, and guarantees their requirements in regard to lending reliability and certainty to the PPP process. PPP Central Unit has been launched in the Ministry of Finance, but still the infrastructure sector needs to urgently apply public sector alterations to deal with supply-side limitations, which requires alterations in delivery methods, processes, procedures and institutional structures to be customized towards client-focused outcomes.

The political developments of early 2011 due to the Egyptian revolution are likely to cause the private sector and investors to be cautious due to increased uncertainty and highly political risks. This can be overcome by a strong commitment from the new government to develop PPPs. In addition, Investors need to update their studies about the Egyptian PPP to cope with the new political developments as well as managing fluctuations in foreign exchange rates. Maintaining investors means that there is enough competition in the market.

KEYWORDS : Egypt, South Korea, Public Private Partnerships, PPP Comparative Study, Assessing Performance.

DEDICATION

This Thesis is Dedicated to The Soul of my Late Father, The First to Teach me ..

MOHAMED ATEF RADY

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ABBREVIATIONS USED

ADB	-	Asian Development Bank
AHP	-	Analytic Hierarchy Process
AMP	-	Asset Management Program
BLT	-	Build - Lease - Transfer
BOO	-	Build - Own - Operate
BOOT	-	Build - Own - Operate - Transfer
BOT	-	Build - Operate - Transfer
BTL	-	Build - Transfer - Lease
BTO	-	Build - Transfer - Operate
CAPMAS	-	Central Agency of Public Mobilization and Statistics
CBE	-	Central Bank of Egypt
CPI	-	Consumer Price Index
DBFO	-	Design - Build - Finance - Operate
DEDPI	-	Detailed Engineering and Design Plan for Implementation
ECA	-	Economic Cooperation Administration
EGP	-	Egyptian Pound (L.E.)
ENR	-	Egyptian National Railways
EOI	-	Expression Of Interest
EU	-	European Union
FDI	-	Foreign Direct Investment
FEMIP	-	Facility for Euro-Mediterranean Investment and Partnership
FIZ	-	Free Industrial Zones
GAFI	-	General Authority for Investment and Free Zones
GDP	-	Gross Domestic Product
GOE	-	Government Of Egypt
ICT	-	Information and Communication Technologies
IEBP	-	In-depth Evaluation of Budgetary Program
IFC	-	International Financial Crisis
IFI	-	International Financial Institution
IMF	-	International Monetary Fund
JBIC	-	Japan Bank for International Cooperation
KDI	-	Korea Development Institute
KICGF	-	Korea Infrastructure Credit Guarantee Fund
KRW	-	Korean Won (₩)
MENA	-	Middle East and North Africa
MOF	-	Ministry Of Finance ' Egypt '
MOI	-	Ministry Of Investment

MOSF	-	Ministry Of Strategy and Finance ' South Korea '
MOU	-	Memorandum Of Understanding
MPC	-	Monetary Policy Committee
MRG	-	Minimum Revenue Guarantee
NCWW	-	New Cairo Waste Water project
OECD	-	Organization for Economic Co-operation and Development
PAFTA	-	Pan Arab Free Trade Area
PFI	-	Private Finance Initiative
PFS	-	Preliminary Feasibility Study
PIM	-	Public Investment Management
PIMAC	-	Public and Private Infrastructure Investment Management Center
PPI	-	Private Participation in Infrastructure
PPIAF	-	Public-Private Infrastructure Advisory Facility
PPP	-	Public-Private Partnership
PPPCU	-	Public-Private Partnership Central Unit
PRC	-	PPP Review Committee
PSC	-	Public Sector Comparator
QIZ	-	Qualified Industrial Zone
RDF	-	Re-assessment of Demand Forecast
RFP	-	Request For Proposal
RSF	-	Re-assessment Study of Feasibility
SME	-	Small and Medium Enterprise
SOC	-	Social Overhead Capital
SOE	-	State Owned Enterprise
SOP	-	Standard Operation Procedures
TIFA	-	Trade and Investment Framework Agreement
UAE	-	United Arab Emirates
UK	-	United Kingdom
UN	-	United Nations
US	-	United States
VFM	-	Value For Money
WTO	-	World Trade Organization
WWTP	-	Water Waste Treatment Plant

CHAPTER (1)

Introduction & Economy's Review in Egypt and South Korea

INTRODUCTION

Improving the infrastructure sector has become a crucial issue for the economic and social development in the developing countries to motivate economic growth as it energizes business doings, job creation opportunities, market products, and generates earnings. A significant pressure on infrastructure supply because of the growing of urbanization around the capital cities, and increasing of the industry. However, the fiscal resources in these countries have not been adequate to give the required investment to deliver adequate infrastructure.

Public-Private Partnerships (PPP) is identified as a key instrument to attract much needed private investment to develop the infrastructure and encourage private sector participation in the delivery of communal services.

SIGNIFICANCE OF THE STUDY

PPPs introduce the regulations of private sector management and schemes to the prerequisite of public services. Practice from other countries shows that by connecting the matching skills of the public and private sectors, the public sector can apprehend major advantages in terms of cost, value and quality of the carried services. Private involvement aims at improving the quality of services provided to the people, creating job opportunities, motivating investment and consumption thus boosting growth, attracting FDI, and further. The government's capability to provide public services at lesser than their actual cost is not impacted by the PPP – this is a stand-alone matter that government concentrate on a sector or project-specific basis, successful PPP transactions can be implemented whether services are provided at cost or less cost of service delivery through the use of explicit or implicit subsidy mechanisms where the government would take on itself closing the capital and economic viability gaps.

In Egypt, The political developments of early 2011 due to the Egyptian revolution are likely to cause private sector and investors to be cautious due to increased uncertainty and highly political risks. This can be overcome by a strong commitment from the new government to develop the Public-Private-Partnerships program. This program offers a fresh source of investment for essential infrastructure projects, reduce the government borrowings and related risks, create domestic long-term funding markets, form a new private sector facility management market, enlarge the economy, stimulate job creation, and enhance the quality of public services to the Egyptians.

In line with the economic development agenda and strategy to increase private sector involvement in public social infrastructure services by leveraging private spending against public spending, the Government has taken the proposal to set up a PPPs policy and program through the founding of the PPP

Central Unit (PPPCU) within the Ministry of Finance (MOF). That central unit acts as the PPP center for support and expertise, identifies pilot projects with the line ministries in charge, puts national guidelines for implementation, standardizes PPP contracts, provides technical and advisory support to infrastructure line ministries, and monitors the implementation of PPP projects.

While in South Korea, The PPP was first introduced with the enactment of the promotion of private capital into Social Overhead Capital (SOC) investment act in 1994. The act directs the Ministry of Strategic and Finance (MOSF), and the Public and Private Infrastructure Investment Management Center (PIMAC) to issue the PPP Basic Plan which provides PPP policy directions, details in PPP project implementation procedure, financing and re-financing directions, risk allocation mechanism, payment scheme of government subsidy, and documentation direction.

RESEARCH OBJECTIVES

The purpose of this research is to assess the Egyptian PPP performance and benchmark it with the Korean PPP model, taking into consideration that the Korean case is one of the standards or the best practice model, as the use and development of PPPs in Egypt is presently in a phase of break through, and the prior years of the PPP in Egypt was characterized by many minor initiatives on a lower administrative level, but in 2006 a task group was established on governmental level. The GOE adopted a new long-term policy of tracking partnerships with the private sector to enlarge and enhance the country's infrastructure investments.

This thesis aims to study the development of the PPP in Egypt and South Korea. Through a delimitation of the PPP compared to the more widespread concept of public private cooperation the fundamental idea and the basic organization and structure in the PPP is investigated including frame conditions and applied models. More study on selected projects has been conducted through a survey to assess the performance of the PPP program in Egypt. Also, it's examined and reviewed if experiences and ways from South Korea can be applied in the Egyptian market or not.

RESEARCH QUESTIONS

Specifically, the main question in my study is:

Whether the PPP in Egypt is taking the success pace same as the Korean PPP or not ?

From that question, there are other sub-questions, the researcher will proceed for answering it through thesis chapters. These questions are:

- *Why the PPP is the choice in Korea and how to make it the choice in Egypt ?*

- *What is the main structure in the PPP's life cycle in Egypt and South Korea?*
- *What is the main differences between the PPP's units in Egypt and South Korea ?*
- *Does the PPP in Egypt on the right track or not?*
- *If not, then How to make PPP flourishing in Egypt ?*

The researcher argues that both Egypt and South Korea acknowledge the potential of PPPs in delivering high quality infrastructure and services to the general public. Both countries made a move towards PPPs by creating PPP specialized units and producing PPP guidelines. However, South Korea has been more active in pursuing PPPs when compared to Egypt‘s cautious approach to PPPs.
Hence, the intention here is to discover the reasons behind this tendency, issues relevant to the reasons for implementing PPPs, features of PPPs, allocation of risks, key performance indicators, and accounting for PPPs are analyzed to give explanation for this drift.

STRUCTURE OF THE STUDY

The study will be comprised from four chapters, as follows:

Chapter One is introducing the main purpose of the study, the research questions, and the literature review to review some literatures about the PPP in theory, the PPP in Egypt, the PPP in South Korea, and PPP key performance indicators in benchmark studies. In addition to an overview of the basic indicators and statistics in the Egyptian economy and the Korean economy in order to understand the main cultivated field of the PPP in each country.

Chapter Two is reviewing the origins and the characteristics of the PPP program in Egypt and South Korea by introducing the key elements, the active sectors, the legal framework of the PPP, achievements, the PPP life cycle in each country with some details about procurement options, the bidding process, value for money test, also it includes the characteristics of the dedicated PPPs units, (PPPCU) in Egypt and (PIMAC) in South Korea.

Chapter Three is introducing the in-depth analysis for assessing the PPP performance in Egypt through conducting a sample survey on 23 operational projects working in Egypt, using the database from PPPCU / Ministry of Finance. The Key performance indicators used to assess the PPP performance in Egypt are cost & affordability, project management, awareness and training, budget, risk transfer, and regulation framework. That chapter includes the research design and methodology for the conducted survey, also the data analysis using the statistical tool (*SPSS 17*), and the last part of the chapter is reviewing the main recommendations of the study.

Chapter Four is concluding the whole study to and using the all the data used in the thesis in order to flourish the PPP in Egypt in guidance of the Korean experiences and best practice. This chapter is mentioning the main implications and challenges for the Egyptian PPP, and the main lessons which can be transferred and adapt from the Korean experience in regard to PPP program, and some case studies in BTO and BTL projects in South Korea. At the end of the chapter, the researcher is stating some recommendations in order to make PPP program successful in Egypt for better economy in the future.

SOUTH KOREA, THE BEST PRACTICE

During the last few years, South Korea is considered one of the top five - with United Kingdom, Australia, Canada, and South Africa - in regard to the PPP.

In addition, the legal outline of the PPP scheme introduced in 1994 in South Korea made PPP projects to increase, as the number of PPP contracts in South Korea in 2009 was 461 projects (169 BTO projects, and 292 BTL projects), from these projects 251 projects have been completed to provide services to the public. All these indicate that the PPP is successful in South Korea.

The democratization transition and economic development booming in Egypt and South Korea approximately began at the same time - after 1950s - when the Korean war ended, and the ending of the royal ruling in Egypt. Both countries were poor and looking for development, they almost had the same conditions in everything except race capabilities.

In regard to PPPs, there is a big gap between both countries, although the evolution of PPP units in each country have been established approximately in the same period.

LITERATURE REVIEW

This thesis is not consider the first to deal with the issue of PPP performance and benchmark in one of the developed countries and the PPP performance in one of the developing countries, but it considers the first one of its kind to deal with the issue of benchmark the PPP performance in South Korea (as a Developed country), and the PPP performance in Egypt (as a Developing country).

In fact, there are many studies about the PPP , But according to this thesis, It's more appropriate to review some literatures about the PPP in Theory, the PPP in Egypt, the PPP in South Korea, and PPP performance in benchmark studies.

I. PPP in Theory :

It's evident that the PPP has been differently defined by agencies, academics, and international organizations. The main element characterized in these definitions is cooperation, sharing responsibilities,

decision making power and authority, risks sharing and mutual benefit, pursuing shared or compatible objectives, and joint investment.

- "The term ‘partnership’, includes contractual arrangements, alliances, cooperative agreements, and collaborative activities used for policy development, programme support and delivery of government programmes and services." (*Osborne, 2000*)
- "A public–private partnership is a cooperative venture between the public and private sectors, built on the expertise of each partner, that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards." (*Carr, 1998*)
- "A public–private partnership is a relationship that consists of shared and/or compatible objectives and an acknowledged distribution of specific roles and responsibilities among the participants which can be formal or informal, contractual or voluntary, between two or more parties. The implication is that there is a cooperative investment of resources and therefore joint risk-taking, sharing of authority, and benefits for all partners." (*Lewis, 2002*)
- "A public–private partnership is an arrangement between two or more entities that enables them to public service work cooperatively towards shared or compatible objectives and in which there is some degree of shared authority and responsibility, joint investment of resources, shared risk taking and mutual benefit." (*United Kingdom HM Treasury, 1998*)
- "A partnership is an arrangement between two or more parties who have agreed to work cooperatively toward shared and/or compatible objectives and in which there is shared authority and responsibility, joint investment of resources, shared liability or risk-taking, and ideally, mutual benefits." (*European Commission, 2003*)
- "The term ‘public–private partnerships’ has taken on a very broad meaning, the key element, however, is the existence of a ‘partnership’ style approach to the provision of infrastructure as opposed to an arm’s length ‘supplier’ relationship. Either each party takes responsibility for an element of the total enterprise and work together, or both parties take joint responsibility for each element. A PPP involves a sharing of risk, responsibility and reward, and is undertaken in those circumstances when there is VFM benefit to the taxpayers." (*The World Bank, 2003*)
- "The broad working definition of a 'public–private partnership' used here is a relationship involving the sharing of power, work, support and/or information with others for the achievement of joint goals and/or mutual benefits." (*Kernaghan, 1993*)

There are two underlying theories of PPPs: The first one is **Agency Theory** "which formalises assumptions about the distribution of property rights and information in the writing of contracts that define organizations. In particular, it focuses on the relationship between principals and agents who exercise authority on behalf of organizations.

The theory argues that principals must solve two basic tasks in choosing and controlling their agents: First, they have to select the best agents, whether employees or contractors, and create inducements for them to behave as desired. Second, they have to monitor the behaviour of their agents to ensure that they are performing as agreed. A problem arises when the parties' goals conflict or when it is difficult or expensive for the principal to verify what the agent is actually doing."[1]

The second theory is **Transaction Cost Theory** "which focusing on PPP contracts, this theory views the parties attempting to engage in exchange as contracting both the terms of the exchange and their execution"[2]. "Simply put, a contract should also take into account all the expenses made in order to reach that contract, whether personal or social. The contracting process can be very costly in that it includes not only the structuring, monitoring, bonding and residual loss costs of the principal-agent problem, but also includes the costs of negotiation"[3].

"PPPs may incur high transaction costs, especially where there is no culture of PPPs or little knowledge of the process. When there is government provision, production costs will largely determine total social costs, and because they are internalised, transaction costs are likely to be low. However, managerial inefficiency may mean high production costs, there is extensive evidence that large government infrastructure projects have often been way over the budget.

PPPs can lower production costs because of competitive pressures that eliminate managerial inefficiency. Economies of scale may mean that private sector firms have lower production costs"[4]. "But private production can raise transaction costs because the government has to negotiate with and monitor suppliers who have their own incentives"[5].

II. PPP in Egypt :

Very few studies have been made about the development of the Egyptian PPP because it's a new program, The MENA - OECD Investment program has issued a report titled (*Business climate development strategy in Egypt*) which described many aspects of the policy assessment in Egypt. One of these policies is the privatization and PPP issue. From this report, the researcher conducts the evolution of the PPP in Egypt and how the privatization program leads to the PPP program in Egypt.

"In Egypt, Privatization is an essential method by which governments create efficient and competitive markets for goods and services. The structure of privatization is not limited to a full transfer of ownership from the state to the private sector, but may also comprise partial ownership transfers or concessions to provide a specific service. While PPPs are closely related in that joint ventures between governments and

[1] Ayee, Joseph R. A. "Public Sector Management in Africa." African Development Bank 82, 2005.
[2] Ayee, Joseph R. A. (2005: 1).
[3] Weimer, D. and A.R. Vinning: The State of Public Management, 1996.
[4] Williamson, E.O. : Markets and Hierarchies, Free Press, New York, 1975.
[5] Vinning, A.R. and A.E. Boardman: Public-Private Partnerships: Eight Rules for Governments, 2008.

private entities can be formed with a view to delivering more efficiently certain public goods and services, such as infrastructure development.

Some achievements happened in Egypt with its privatization program: *First;* is the clear legal framework for the process, as a series of laws and regulations from the early 1990s set out guidelines, 314 state-owned enterprises (SOEs) were put up for sale and combined into 27 holding companies, each one with a specific specialization. In addition, since 2002, it has also been possible for the government to sell state-owned shares in joint-venture companies. As a conclusion for this, from 1993 to 2004, nearly 200 SOEs were fully or partially privatized.

In addition to SOEs and government stakes in joint ventures – which are sold under the Asset Management Program (AMP) – other companies can be privatized too. These are dealt directly by their line ministries. These companies so-called (strategic companies) in sectors such as electricity, telecom, aviation, banks, all companies under the Suez Canal Authority, and large companies.

Second; The positive result from initial privatizations, as the first wave of privatizations yielded positive results, allowing the state to gradually usher in more private-sector initiative, competition, and a more transparent investor climate, especially in manufacturing and banking sectors.

Third; Privatizations acceleration as it represented 2.5 % and 1.9 % of GDP in 2006 and 2007 respectively. This increase was primarily due to the sale of a state-owned bank, the Bank of Alexandria, and the part-privatization of Telecom Egypt, which alone accounted for 0.9 % and 1.3 % of GDP respectively.

Fourth; There are no restrictions on foreign investor participation in privatization projects in Egypt. As there are some sectors where foreign investment is only allowed in the form of joint-venture companies in which foreign equity does not exceed 49 %. Such sectors are construction, maritime transport, air transport and courier services, all considered strategic and associated with national security. Foreign participation in privatization in Egypt has generally been strong, and most of the government stakes in joint ventures have been sold to foreign investors.

Fifth; One of the biggest achievement from privatization is the formulation of an overall PPP strategy in 2006 with the legal framework, which enhanced by the passing of the PPP framework law in June 2010, and putting a number of mechanisms, such as the PPPCU which is in charge of planning and managing PPP projects.

Scholars demonstrated the Challenges which faced the PPP in Egypt: *First;* The privatization program stalled in 2008, because of international financial crisis (IFC), which brought some confusion to investors in Egypt.

Second; Egypt's privatization policy framework is too wide and ambitious. It seeks to meet multiple and conflicting aims, such as improving efficiency and creating jobs, which gives rise to a large number of

cross-cutting policy issues, which need to identify the priorities and adequately address the overall strategy and the objectives.

Third; Lack of transparency. As there is a lack of important details, such as exactly how many public entities are to be privatized and when they will be offered for sale. The key principle of AMP is to operate within a (clearly announced and well communicated program). Although the government has communicated the benefits of the privatization process before and attempted to address public concerns over employment, it will need to clarify its intentions and the key elements of its strategy in order to revitalize the process again.

Fourth; The PPPCU has encountered resistance from line ministries, these include ensuring the buy-in of portfolio ministries and the successful establishment of satellite PPP units, finalizing the draft PPP legislation, providing capacity building to other government entities, and finalizing and completing the initial pilot projects. There has been resistance from the line ministries against the idea of PPPCU with an overall co-ordination function. The line ministries have not yet seen the value added of the PPPCU and are uncertain of the benefits that it can provide.

Fifth; Some PPP pilot projects have failed to attract investor interest to build and manage. There is ignorance about the availability of sufficient funding through local commercial banks."[6]

Most of early literatures and studies done about the Egyptian PPP have been focused on the legal and financial frameworks in Egypt, and the importance of the PPP to the Egyptian economy and how important to establish The national PPP unit (PPPCU) which demonstrates the leadership in the development of PPP programs and projects.

From all these studies the scholars claimed that the Egyptian PPP has a potential despite of some problematic issues which will mention in details in the following chapters.

III. PPP in South Korea :

One of the most important studies about the PPP in Korea are volume one & two of "Public-Private Partnership Infrastructure Projects : Case Studies from the Republic of Korea"[7] written by Prof. Kim, Jay-Hyung, and others. The authors analyzed how the government of Korea began to push the PPP program since 90s during the shortage of infrastructure facilities such as roads, railways, seaports, and airports. *(Volume 1)* of that book demonstrates the Institutional Arrangements and Performance, while *(Volume 2)* is discussing some Cases of BTO projects for ports and BTL projects for education facilities.

[6] MENA-OECD. "Policy Assessment in Egypt: Privatization Policy and Public Private Partnerships." Business Climate Development Strategy (2010).

[7] Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin, and Seung-yeon Lee. Public–Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea. Manila: ADB, 2011.

The authors analyzed the evidence of PPP contribution to the national economy in South Korea, as "The government introduced PPP projects with the Act on Promotion of Private Capital Investment in SOC in 1994, but their performance fell short of expectations because of institutional inadequacy, lack of experience, and the 1997–1998 financial crisis. To reinvigorate private investment, the government introduced a series of supplementary policies, such as providing construction subsidies and MRGs and credit guarantees, through the revised Act on PPI in 1998. In 2005, the government introduced the (BTL) scheme in addition to the existing (BTO) method to expand PPP projects, and included social infrastructure facilities in educational, cultural, and welfare areas as targets."

"By examining the relationship between PPP projects and economic growth, they found that SOC and total investment had a positive impact on economic growth, but PPP investment didn't have a significant relationship with economic growth. They also found that an increase in PPP investment was associated with a decrease in public investment in both the short-run and the long-run, while it was associated with an increase in private investment in the short-run only. And that implies that the contribution to economic growth resulting from the input of private capital. Also, the authors analyzed the performance evaluation of the PPP in some sectors in South Korea through a survey to be distributed on different kinds of projects: projects in operation, projects under construction, and project under negotiation. The performance evaluation included all kinds of measures such as cost-reduction effects, facility expansion effects, risk transfer, etc."

The authors analyzed "the efficiency of PPP projects from the perspectives of three parties: users, concessionaires, and the government. From the users' perspective, the efficiency of PPP projects can be examined by analyzing the user fees (such as tolls on roads constructed by private investment, railway fares, etc.) through a financial model and also by reviewing the renegotiation issues of concession agreements. When people use PPP projects, they pay user fees for facilities. For example, tolls for roads and fares for railways. Comparative analyses of the user fees of government projects and PPP projects are conducted in this study. Based on accumulated experience with PPP projects, the study examines whether the gap between the user fees for government projects and PPP projects are gradually narrowing.

From the concessionaires' perspective, the study examines whether there were adequate levels of competition and also, in accordance with the intensity of competition, it aims to analyze government subsidies and returns to concessionaires in comparison to the risks that they take.

In cases of efficiently implemented PPP projects, concessionaires gain a fair level of returns that compensate for the risks. The analysis aims to examine whether the expected concessionaires' rate of return is adequate in comparison with the risks.

Since the estimation of the adequate rate of return for PPP projects is required for this process, the research methodology in the PIMAC's 2006 Study on the optimum rate of return in various BTO projects is employed for the estimation of various sectors, including roads, railways, and ports.

From the government' perspective, PPP projects need to bring some kind of efficiency gains in comparison with traditional public projects. In public projects, government funds all of the project cost and collects the user fee over a long period of time that roughly corresponds to the concession period. In PPP projects, on the other hand, the government provides a subsidy to a private company. One way to evaluate the efficiency of PPP projects is to compare the actual costs of PPP projects and comparable public projects. That study aimed to conduct a comparative analysis of the government's costs provided by public projects and PPP projects.

Also to check whether the government is effectively controlling its risk, clauses in concession agreements concerning delay, quality control, and the minimum revenue guarantee (MRG).

The conclusion of that study showed that PPP projects in South Korea have become more efficient from the perspectives of users, concessionaires, and the government. The key results include user fees of PPP facilities have approached those of public facilities over time, the return to private participants relative to the risks they bear has become tighter, because of the increased competition in the bidding process, and the MRG level provided by the government has decreased over time.

The improved efficiency of PPP projects in South Korea has been reflected in concession agreements. Overall, concession agreements have developed in the direction of better protecting the interests of users and reducing the uncertainty for private participants as well as the government."

IV. PPP Performance in Benchmark Studies :

Cross-country comparisons of economic data are often based on market exchange rates. While the calculation is straightforward, the results can be misleading in particular analyses, that's why benchmark studies are used to determine who is the very best, who sets the standard, and what that standard is.[8]

Now the question is :

If we want to benchmark 'PPP Performance', what objective measure would we use to compare ? Most of the early works in the area of the PPP benchmark between countries were done by OECD, and very few studies done in a comparison perspective, not a benchmark perspective.

One of the recent studies done by (The European Investment Bank) in 2011 is an in-depth overview of the financial, legal, regulatory, contractual and institutional frameworks affecting the implementation of PPPs in nine FEMIP countries (Facility for Euro-Mediterranean Investment and Partnership: Algeria, Egypt,

[8] Bournot, Sophie, Francette Koechlin, and Paul Schreyer. "2008 Benchmark PPPs Measurement and Uses." OECD Statistics Brief 17 (March 2011).

Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, West Bank), to compare different PPP experiences both in these countries and with five Benchmark Countries: (France, United Kingdom, Mexico, South Africa, and Poland).

The findings of this report regarding to the Egyptian PPP was as following:

1. Limited domestic long-term lending capacity especially for WWTP (Water Waste Treatment Plant).
2. Projects sometimes would benefit from further preparation (feasibility studies, risk analysis, financial appraisal and legal analysis), planning and budgeting. e.g. Schools project.
3. The general legal framework developed as well, although the fragmented legal framework for procuring infrastructure would benefit from simplification for PPPs.
4. Procurement procedures closely follow the international best practice.
5. The law on liquidated damages follows the civil law approach (fairness of agreed damages).
6. Permitting termination after a grace period if the authority doesn't compensate within that period.
7. PPP contracts tend to clearly set out the trigger for termination and the rights of each party, including compensation. There is precedent for protecting senior debt in all events.
8. Relative lack of restrictions to FDI – high flows.
9. Pragmatic approach of the availability of sovereign support, and it depends on the project.

Also one of the comparison studies done with the developing countries in the Middle-East was about (The PPP in Egypt, Algeria, and Jordan) which demonstrated the PPP history in each country and the most active sectors and bidding process in each country, in addition to some case studies from Egypt, Algeria, and Jordan.

From all the above literatures and studies, the researcher is placing the issue of the performance in the benchmark study between Egypt and South Korea, as after 5 years of establishing the national PPP central unit as the power-engine of PPPs in Egypt, and the PPP in Egypt is properly working well, which led the policy makers to claim that the PPPs is successful and working properly.

These are some reasons make the researcher to take an issue with the Egyptian policy makers whom said that the PPP program was performing well before the revolution happened in January, 25th 2011, such as the Egyptian population is nearly 82 million with GDP per capita $ 2,788 USD (a lower middle income country), 43.4 % urban population, A consistent economic growth, high inflation, high nominal interest rate, high unemployment, relatively sophisticated and slow moving legal system, and poor public infrastructure need to be upgrade, etc.

In this thesis, the researcher will survey the opinion of 23 operational PPP projects in Egypt through a questionnaire to assess the PPP performance in Egypt. The results of this questionnaire and the statistical

analysis will be shown in chapter three to confirm the researcher's assumption about the bad policies which cause wasting the limited budget. These results will be given later to the government and policy makers to help them as a guide to improve and implement better policies and efficient design and operation for PPP projects in the future.

THE ECONOMY REVIEW OF EGYPT AND SOUTH KOREA

1. OVERVIEW ON THE EGYPTIAN ECONOMY

(1.1) Introduction :

Geographically, politically and economically, Egypt sits at the pivotal crossroads linking Europe, the Middle East, and Africa. Egypt is the largest Arab country in terms of population, and the fourth largest among the Arabs in terms of the economy size.

The country is located in the north-eastern part of the African continent, bordered on the north by Mediterranean sea, on the east the Red sea, Israel and Gaza strip, on the west there is Libya, and Sudan on South.

The country is divided into four main geographical regions that include Nile Valley and Delta, Sinai Peninsula, Western Desert, and Eastern Desert.

Egypt recognizes the increasing interdependence of the world community and is concerned with international issues including economic cooperation, disarmament, accessible global markets, human rights and refugee issues. These concerns are reflected in Egypt's foreign policy. In recent years, Egypt has led mediation efforts in several Middle East disputes to maintain regional stability. Egypt is a founder and an active member of the United Nations (UN).

Egypt is also a member of several international organizations, including the World Bank, the International Monetary Fund (IMF), the Arab League, and the World Trade Organization (WTO).

Egypt is a major trading partner in the Middle East. In light of its increasing exports and trading balance with the other nations of the world, Egypt has joined and signed a number of industrial and trade agreements with diverse geographical areas, such as the COMESA Agreement, Egypt - EU Partnership Agreement, the Qualified Industrial Zone (QIZ), the Free Trade Agreement between Egypt and Turkey, the Pan Arab Free Trade Area (PAFTA), and the establishment Agreement of free trade area among the Arab Mediterranean countries (AGADIR Agreement). As well as Egypt - US Trade, and Investment Framework Agreement (TIFA), and other international agreements.

Egypt has been a member of the WTO since 30 June 1995. Since then, Egypt has taken major steps towards compliance with the WTO rules, whether in amending existent regulations or implementing new regulations.

(1.2) Political Structure :

Egypt was headed by President Mohamed Hosni Mubarak until February 11th 2011, "as on January 25th 2011 widespread protests began against Mubarak's regime. The objective of the protest was the removal of Mubarak from power. This took the form of an intensive campaign of civil resistance supported by a very large number of people and mainly consisting of continuous mass demonstrations.

On 13 February 2011, the high level military command of Egypt declared that both the constitution and the parliament had been dissolved." On March 2011, the constitutional referendum was held, then the parliamentary election to be held on December 2011, and the presidential election will be held on June 2012.

As a republic, Egypt's legislative power is vested in the People's Assembly, who are re-elected every five years. Executive rule and command is attributed to the president, who is appointed by the assembly with the confirmation of a public referendum. Judicial power is exercised by an independent and established system, which includes ordinary police courts and the court of the constitution. The country is divided into 27 governorates or provinces, each governorate is headed by a Governor appointed directly by the president. Each Governorate, in turn, consists of districts headed by a district head appointed by the Prime Minister.

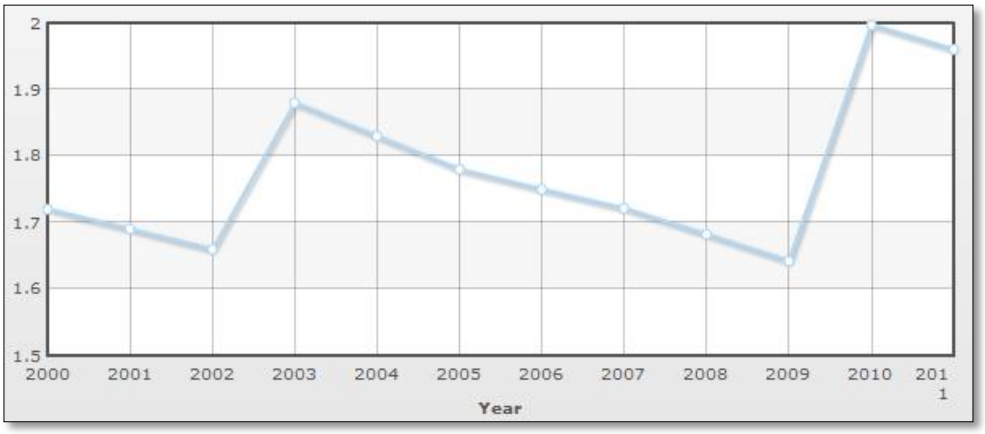
(1.3) Demographic Profile :

Currently Egypt is the most populous country in the MENA with a population of approximately 82 million living in 217 cities, 4617 towns, and 27000 villages. Egypt is the second largest country in Africa in terms of the population size following Nigeria. The capital, Greater Cairo, which is the most populous city with 18 million living in Cairo and the neighboring governorates followed by Alexandria and the Nile Delta. These main areas are among the most densely populated in the world. Additionally, the Sinai Peninsula and Western Desert is home to a minority of Bedouins and Arabs.

Based on statistics from the Central Agency of Public Mobilization and Statistics (CAPMAS), Egypt's population has been growing constantly since 2000 where the average annual growth rate has been approximately 2 % per annum between 2000 and 2010. Figure 1 depicts the annual growth rate.

Over the 1996 to 2006 period, size of the households has dropped from 4.65 people per household, to 4.18 people per household. The size reduction has been caused by the drop in the overall population growth rate particularly in urban areas.

Figure 1 : The annual growth rate in Egypt



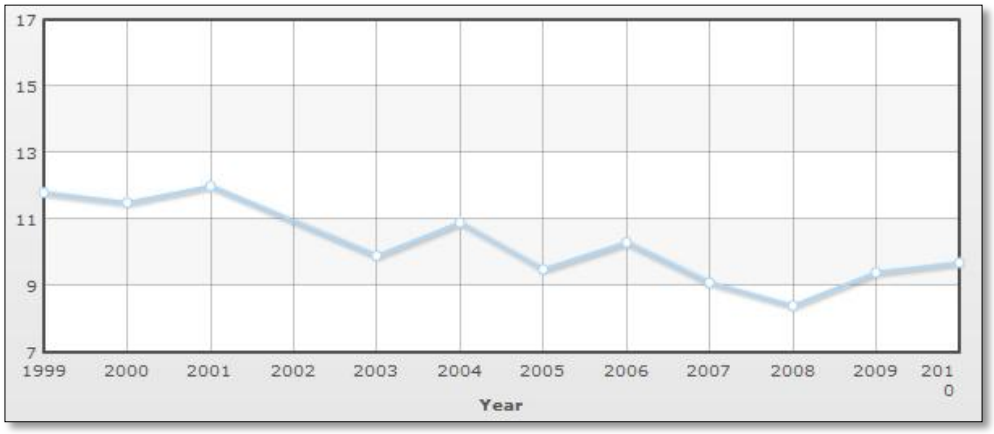
Currently, 32.7 % of the population is in the 0 – 14 years age group while 62.8 % is between 15 years old and 64 years old. The median age for the total Egyptian population is 24.3 years, where it is 24.6 years for females and 24 years for males.

It's forecasted that the population growth rate will continue to increase throughout most of the 21st century and is not expected to stabilize until 2065. The substantial increase is driven by relatively high fertility rates. The birth rate in Egypt is estimated to be 22.12 births per every 1000 population.

(1.4) Labor Market :

Egyptians define the labor force to include all individuals with ages ranging from 14 (the minimum age of employment according to the Egyptian labor law) to 65 years old (the retirement age) whether they are actually taking part by their physical or mental efforts in an activity related to the production of commodities and services (employees) or are capable and willing to perform such activity and searching for work but cannot find it (the unemployed).

Figure 2 : The unemployment rate in Egypt



The total labor force in Egypt during 2010 was estimated to be 26.2 million according to CAPMAS. About 47 % of Egypt's social and economic enterprises are located in Greater Cairo and Alexandria, which employ approximately 25 % of the total labor force. Approximately one-third of the Egyptian workforce is employed in the agriculture sector.

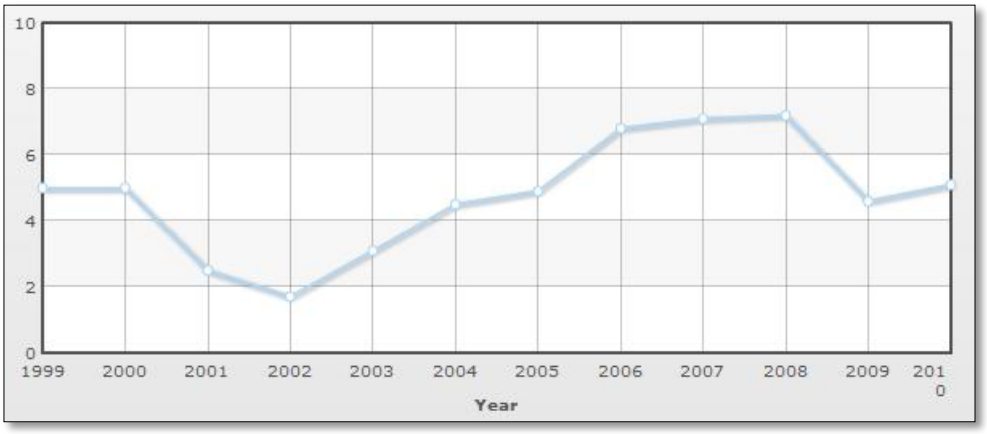
(1.5) Economic Performance :

Egypt's GDP in 2010 is estimated at $ 497.8 billion USD, of which 48.3 % was contributed by the services sector, including public administration, tourism, and revenue from the Suez Canal. The latter has achieved well in recent years as high fuel prices encouraged the use of shorter shipment routes connecting Asia, Africa and Europe. Although agriculture's economic contribution is slowly losing ground, it remains a vital and sizable sector accounting about 14 % of GDP in 2010.

The Egyptian economy has witnessed impressive economic growth recently which has been driven by economic reforms, and a subsequent influx of FDI. The reform initiatives range from streamlining investment procedures, privatization of key SOEs and simplification and reduction in tax rates have encouraged investment in major sectors including tourism, media, agriculture, telecommunications, retail, food and beverages, and construction. Major national and international projects in the real estate, industrial and oil and gas have contributed heavily in providing jobs for young Egyptians.

There have been major initiatives by the government to narrow the gap between the rich and poor. However, despite a moderate success, the gap still remains which leads to the revolution. An increasing population, supplemented by a high birth rate in addition to relatively high illiteracy rates have all added to Government challenges to improve income per capita and in providing urgently needed jobs.

Figure 3 : GDP growth rate in Egypt



(1.6) Fiscal Sector :

"The GOE has launched a fiscal reform program including the automation of the budget process, streamlining tax collection procedures and the introduction of a new personal and corporate tax code in July 2005. These reforms have resulted in the reduction of the overall fiscal deficit, as a percentage of the GDP from 10.2 % in 2001/2002 to 8.2 % in 2005/2006, and further reduced to 6.8 % in 2007/2008, and 6.2 % in July to May period of the 2008/2009 fiscal year." Over the long-term, the GOE aims to reduce the budget deficit by 1 % of GDP annually.

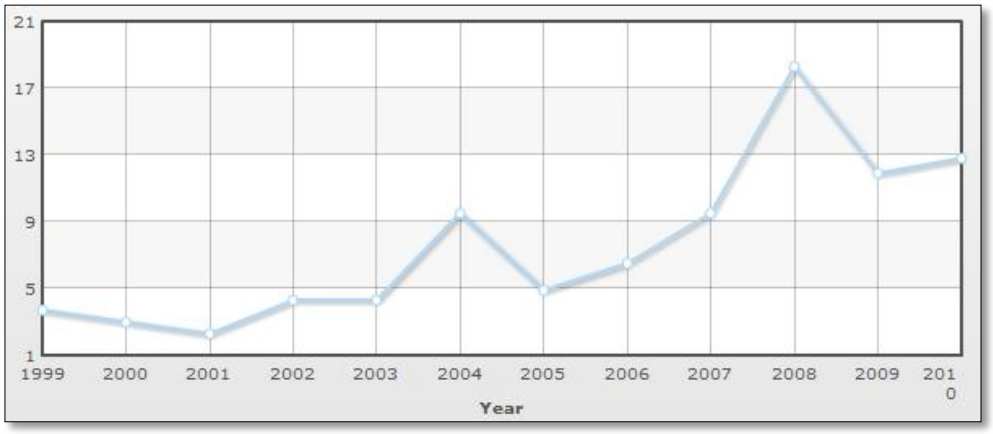
(1.7) Financial and Monetary Sector :

"Egypt is adopting a reform program that targets the modernization of monetary policy formulation and operations. Key components of reform include strengthening the regulatory capacity and supervisory apparatuses of the Central Bank of Egypt (CBE), the establishment of the Monetary Policy Committee (MPC) to decide on appropriate actions regarding key policy rates. The MPC also monitors all inflation related local and international developments and is moving towards an inflation-targeting regime instead of an exchange rate focused policy."

(1.8) Inflation :

CBE has begun to shift on the way to make inflation aiming its main strategy target to counteract rising inflation. Driven by raising the prices of energy and food, the yearly increase in Consumer Price Index (CPI) rose to an average of 10.9 % in fiscal year 2006/2007 from 4.2 % in fiscal year 2005/2006. In 2011, further global price increases in food prices, and the Egyptian revolution effects pushed the inflation rate in Egypt to 12 %.

Figure 4 : Inflation rate in Egypt



(1.9) Foreign Exchange :

"Egypt's foreign exchange rate policy was revised in January 2003 as the adaptable peg has been replaced by a floating exchange rate system. Moreover, an inter-bank system for foreign exchange trading was initiated in December 2004, which has led to the convergence of the official and unofficial parallel market rates, bringing discipline to the market. Since the foundation of the reform program, exchange rates have stayed constant at around EGP 5.6 per USD, and EGP 7.7 per EUR."

(1.10) Bank Credit and Interest Rates :

Credit offered by commercial banks has raised by approximately 8 % since 2004, with lending to the private sector for more than 93 % of total credit as of April 2009. Of total lending to the private sector, foreign currency loans accounted for 30 % of the total as of April 2009. Local interest rates have stayed fairly stable over the previous 5 years.

The CBE discount rate averaged 8.68 % in 2010, and observed short-term lending and deposit rates were in the range of 12.2 % and 6.1 % respectively in 2010.

Observed domestic lending rates now are at low level all time, with a major lending spread reaching LIBOR +2 % for blue-chip private sector companies. Grace periods ranged from 2 to 5 years and loan term can extend up to 15 to 20 years for project financing deals.

(1.11) External Sector :

"Egypt's external position has also been improving. The overall balance of payments has moved from recording a deficit of $ 871 million USD in FY 2000/2001 to a surplus of $ 3.3 billion USD in FY 2005/2006, and further improved to $ 5.5 billion USD in 2007/2008.

Egypt's current account has also performed well recording a surplus reaching $ 888 million USD in 2007/2008. In the meantime, the capital and financial account has recorded a surplus of $ 7.1 billion USD in FY 2007/2008 compared to a deficit of $ 963.8 million USD in FY 2001/2002."

(1.12) Investment Environment :

According to 'Doing Business 2010' report, "Egypt, this year and for the fourth time in five years, managed to find a place among the ten most reform adopting countries in the world. It maintained its place among the countries improving and streamlining the business environment. Egypt occupied the 108th position in 2011 amongst 183 countries, an increase of 10 positions in the rankings of the previous year. In 2007 Egypt ranked 165th amongst 175 countries, advancing 59 ranks at the level of international classification. A package of radical reforms has been enforced in investment-related procedures from starting a business, dealing with construction permits, employing workers to registering property, getting credit, protecting investors, paying taxes, trading across borders and enforcing contracts."[9]

Egypt made starting a business easier by reducing the paid-in minimum capital requirement by more than 80%, abolishing bar association fees, and automating tax registration. A new building code introduced in 2008 has also reduced the processes and time needed to deal with construction authorizes. Other developments that have also served the business community included simplified administrative procedures with new time constraints reducing the time to transfer possessions in Cairo, the port of Alexandria speeding customs clearance, and new records regulations for the Egyptian Exchange strengthening protection for minority shareholders. Egypt established the first credit bureau which provides credit information and rating services. Steps taken by Egypt to enact the Economic Courts Law which facilitated litigation procedures and achieved the speedy resolution of economic disputes were also acknowledged. The law also provided the necessary protection for investors.

- The following points summarize the key features of the structural economic and legal reforms implemented by GOE over the last five years :

• The establishment of a new Ministry of Investment and the reorganization of the General Authority for Investment and Free Zones (GAFI). A Board of Trustees was established for GAFI, including representatives of investment associations, exporters, industrial and commercial federations, and academics. The Board examines investment impediments, recommends possible remedies, and draws up action plans and policy measures that would help improve the business climate in Egypt.

• An Investors' Relations Unit was established at GAFI to link investors to all entities with investment-related activities.

• GAFI established a 'One Stop Shop' in Cairo with branches in other governorates in order to reduce the time required to establish a new company from three months (as was the case two years ago) to no more than three days at the present.

[9] World bank group. "Doing Business 2010 (Egypt Arab, Rep.)".

• A new General Authority for Industrial Development was established in 2005 to assist with the implementation of industrial policies, and the promotion of industrial development.

• Property registration fees have been reduced from 3 % of property value to a unified flat fee of a maximum of EGP 2000 L.E. in an effort to ensure the availability of an accurate property registry, and to help protect property rights in Egypt.

• A Ministerial Decree has been issued amending article 67 of the Executive Regulations of law no. 159 of 1981. According to amended regulations, Limited liability companies will enjoy the annulment of the minimum capital of their requirement. The decree enforces law no. 68 of 2009 and comes within the course of efforts exerted by the ministry and the GAFI to help small investors, and facilitate procedures of establishing SMEs.

• Law 19 of 2007 was issued to allow the establishment of the new Investment Zones in order to streamline, and speed up the process of licensing, reduce procedures in a number of respective entities involved, as well as time and cost.

• To strengthen investor protection, the MOI established the 'Institute of Directors' with the aim of strengthening corporate governance practices, providing research and technical advisory services, and promoting awareness of the benefits of corporate governance in Egypt. The Institute of Directors issued the first Corporate Governance Code as well as another code for SOEs, based on OECD principles and guidelines.

• Law 3 of 2005 on Competition Protection and Prevention of Monopolistic Practices was issued setting up the Egyptian Competition Authority to prevent the abuse of market power reducing competition as well as contestability in domestic markets.

• Tax rates have been significantly reduced, as the tax bill that halved the highest rate bands of income and corporation taxes was passed by the parliament, and has been applied since June 2005. The bill introduced sales tax rebates and improved payment procedures. The highest rate of income tax has been cut down to 20 %, and the qualifying income level for each tax band has been raised. Corporate tax has also been brought down and unified at a single rate of 20 % .

• Establishment of a new non-banking, financial services sector regulator, the Egyptian Financial Supervisory Authority, with responsibility for capital markets, commodity exchange contracts (derivative exchange), and activities related to insurance services, mortgage finance, financial leasing, factoring and securitization. Tax and customs procedures have been upgraded. A Model Customs and Tax Centre was established as a modern tax administration centre that consolidates the activities of three departments (Customs, Sales and Income). This simplifies rules and makes the tax payment system more transparent.

The results of these initiatives have included a strong economic growth (the average growth rate is 6 % during the period from FY 2004/2005 – FY 2008/2009), increased foreign investment and improved the overall investment climate.

In close connection, it is worth mentioning that Egypt has ranked the first in North Africa and the second in Africa - after South Africa - in attracting direct investments and occupies the 20th rank in the FDI Performance index, according to the International Investment Report (2008) issued by the United Nations Conference on Trade and Development. Egypt received over 50 % of FDI inflows to North Africa, recording an increase of 15 % over 2006. On the other hand, over 22 % of FDI flowing to Africa was absorbed by Egypt, which came in the second rank after Nigeria, and advanced South Africa, Morocco, Tunisia, Libya, and Algeria as well as many other African countries. These substantial investment inflows to Egypt are because of the policies, which target to improve the investment climate and increase productivity.

Egypt – among six other developing and developed economies – selected by the Reformers Club, as the top reformer in the domain of business and investment climate.

"Moreover, on July 11th, 2007, Egypt became the 40th country to adhere to the OECD Declaration on International Investment and Multinational Enterprises. The OECD's invitation to adhere to the OECD Declaration comes in recognition of Egypt's impressive progress in recent years in pursuing policy reforms aimed at improving the country's investment climate. Egypt will be better able to draw on the OECD's large fund of experience with international investment issues through regular participation in the work of the OECD Investment Committee. Egypt is the first Arab and African Country to adhere to the OECD Declaration and the current chair of the MENA - OECD Investment Program."

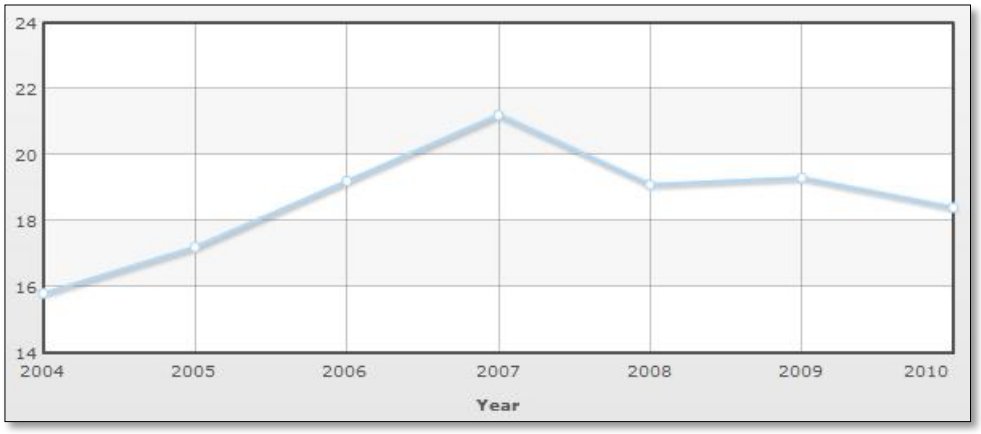
The activation of the National Liaison Point for Investment Affairs (*Liaison Point*) has been announced. It is concerned with implementing the OECD's International Investment Declaration. Liaison Point's activities will be launched within Egypt's involvement as an active member in OECD's Investment Committee. It is assigned to implement guidelines on corporate social responsibility for international companies, including employment, environment, disclosure and transparency and consumer protection. Liaison Point aims at spreading awareness of recommendations, responding to relevant inquiries and solving problems that might emerge while implementing recommendations, in coordination with liaison points of member countries in the investment declaration and other OECD investment related committees and initiatives. Liaison Point is assisted by an advisory committee that includes representatives of the Ministries of Foreign Affairs, Finance, Trade and Industry, Administrative Development and Manpower as well as experts of economics, law and finance, and a representative of the Egyptian Trade Union Federation.

"On 18 August 2008 Fitch Ratings revised the outlook on Egypt's long-term foreign currency Issuer Default Rating (IDR) to stable from Positive, while affirming the rating at 'BB+'. The agency has also assigned the long-term local currency IDR to 'BBB-' (BBB minus) from 'BBB'. The outlook remained stable. The short-term foreign currency IDR, and Country Ceiling were affirmed at 'B' and 'BB+', respectively."

The well performance of the Egyptian Stock Market during the past 10 years, market capitalization has increased more than nine folds reaching 768 billion EGP in December 2007, and has increased from around 25 % of GDP (1997) to more than 85 % of GDP (2007). However, due to the global financial crisis, market capitalization has decreased reaching 534 billion EGP and 51.5 % of GDP in August 2009.

"A new Stock Exchange specialized for SMEs was launched at the end of October 2007, as the expected benefits for SMEs include the provision of the fair market valuation for their businesses, and an easy exit in case a firm would like to go out of the market, this is in addition to the accrued benefits associated with better transparency, and information disclosure as a result of SMEs compliance with corporate governance rules."

Figure 5 : Investment (growth rate) in Egypt



(1.13) Foreign Investment :

Net FDI has shown significant increases over the past seven years, reaching $ 13.2 billion USD in 2007/2008, compared to $ 6.1 billion USD in 2005/2006 and $ 11.1 billion USD in 2006/2007. This was due to various reforms Egypt has undertaken over the past five years. However, due to the global financial crisis, Net FDI Inflows have decreased to $ 8.1 billion USD in 2008/2009.

"Two memorandums were signed resulting in a significant increase in foreign investment, including:

• The establishment of a new road from Borg El Arab in the north of Egypt near the Mediterranean Sea to Aswan in southern Egypt.

• The establishment of a new city in Hurghada by the Red Sea, with a 5-star hotel, trade centre, office buildings, and 50,000 housing units at an estimated project cost of $ 16.5 billion USD."

(1.14) State-Owned Asset Management Program :

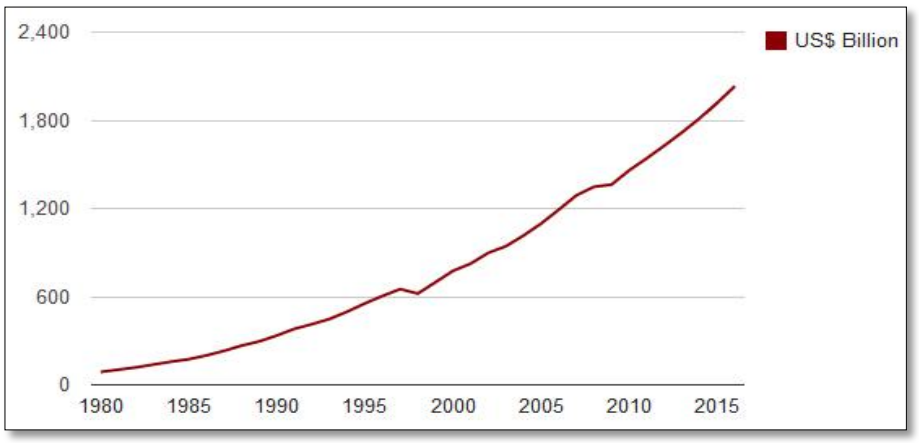
Since 2004, the GOE has adopted a comprehensive program for asset management that is not confined to privatization and merging but also includes restructuring and injecting new investments in public enterprises. Major developments in this respect include the execution of 17 offerings to the private sector for a total value of 1.65 Billion EGP during the Fiscal Year 2008/2009.

2. OVERVIEW ON THE KOREAN ECONOMY

"Since the 1960s, South Korea has achieved an incredible record of growth and global integration to become a high-tech industrialized economy. Four decades ago, GDP per capita was comparable with levels in the poorer countries of Africa and Asia. In 2004, South Korea joined the trillion-dollars club of world economies, and currently is among the world's 13 largest economies. Initially, a system of close government and business ties, including directed credit and import restrictions, made this success possible. The government promoted the import of raw materials and technology at the expense of consumer goods, and encouraged savings and investment over consumption. The Asian financial crisis of 1997-1998 exposed longstanding weaknesses in South Korea's development model including high debt/equity ratios and massive short-term foreign borrowing. GDP plunged by 6.9 % in 1998, and then recovered by 9 % in 1999-2000. Korea adopted numerous economic reforms following the crisis, including greater openness to foreign investment and imports. Growth moderated to about 4-5 % annually between 2003 and 2007. With the global economic downturn in late 2008, South Korean GDP growth slowed to 0.2 % in 2009. In the third quarter of 2009, the economy began to recover, in large part due to export growth, low interest rates, and an expansionary fiscal policy, and growth exceeded 6.1 % in 2010. The South Korean economy's long term challenges include a rapidly aging population, inflexible labor market, and over dependence on manufacturing exports to drive economic growth."[10]

[10] "South Korea - Forbes.com" Information for the World's Business Leaders.

Figure 6 : South Korea's GDP (PPP), (US Dollars)



Source : Economy watch, 2010

"Driven by aggressive manufacturing oriented towards exports, the economy of South Korea rose to become the world's eighth biggest exporter of goods. Clearly considered an advanced economy by international bodies such as the IMF, the CIA, and World Bank, South Korea's economic profile has won a string of plaudits, including:

- ☯ World's 8th largest exporter: Ahead of the UK, Russia and Canada.
- ☯ World's Trading Partner: 3rd largest trader with China and Japan, 7th with the US and 8th with EU.
- ☯ World's largest shipbuilder: including the world's largest shipyard run by Hyundai Heavy Industries.
- ☯ World's 5th largest automobile manufacturer: including the world's largest automobile assembly plant (Hyundai Motors).
- ☯ Asia's largest oil exporter.
- ☯ World's highest internet connectivity, or access with one of the fastest networks as well.
- ☯ World's largest manufacturer of screen displays (LCD, CRT, Plasma, etc).
- ☯ World's fastest increase in patents registered.
- ☯ World's largest electronics manufacturing firm: Samsung Electronics.
- ☯ World's second largest steel maker: POSCO
- ☯ World's largest producer of computer memory chips."[11]

[11] "South Korea Economy | Economy Watch." 30 March 2010.

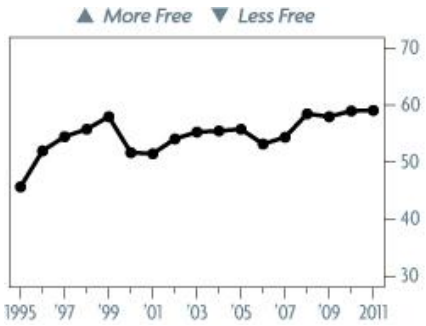
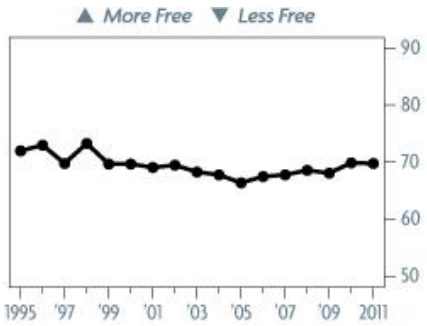
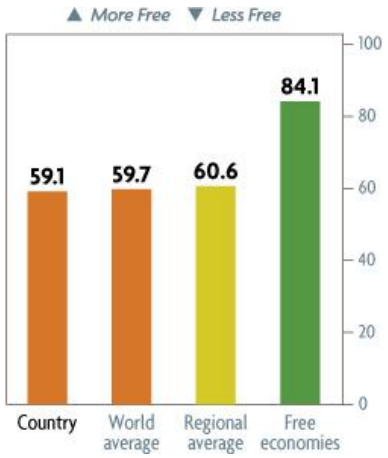
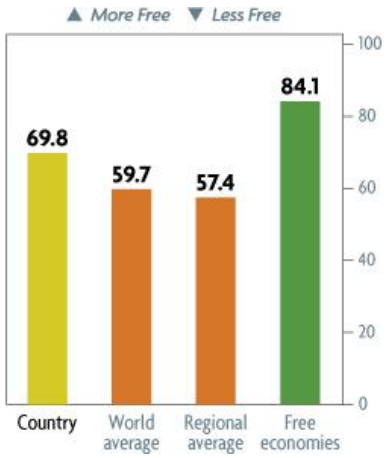
3. MAIN INDICATORS ABOUT THE EGYPTIAN ECONOMY & KOREAN ECONOMY

The following table shows in brief some recent indicators about Egypt and South Korea. The purpose of this table is not to compare between the two countries, but it's important to show the gap and the main differences between some indicators within both countries.

Table 1 : Information and Indicators about Egypt and South Korea

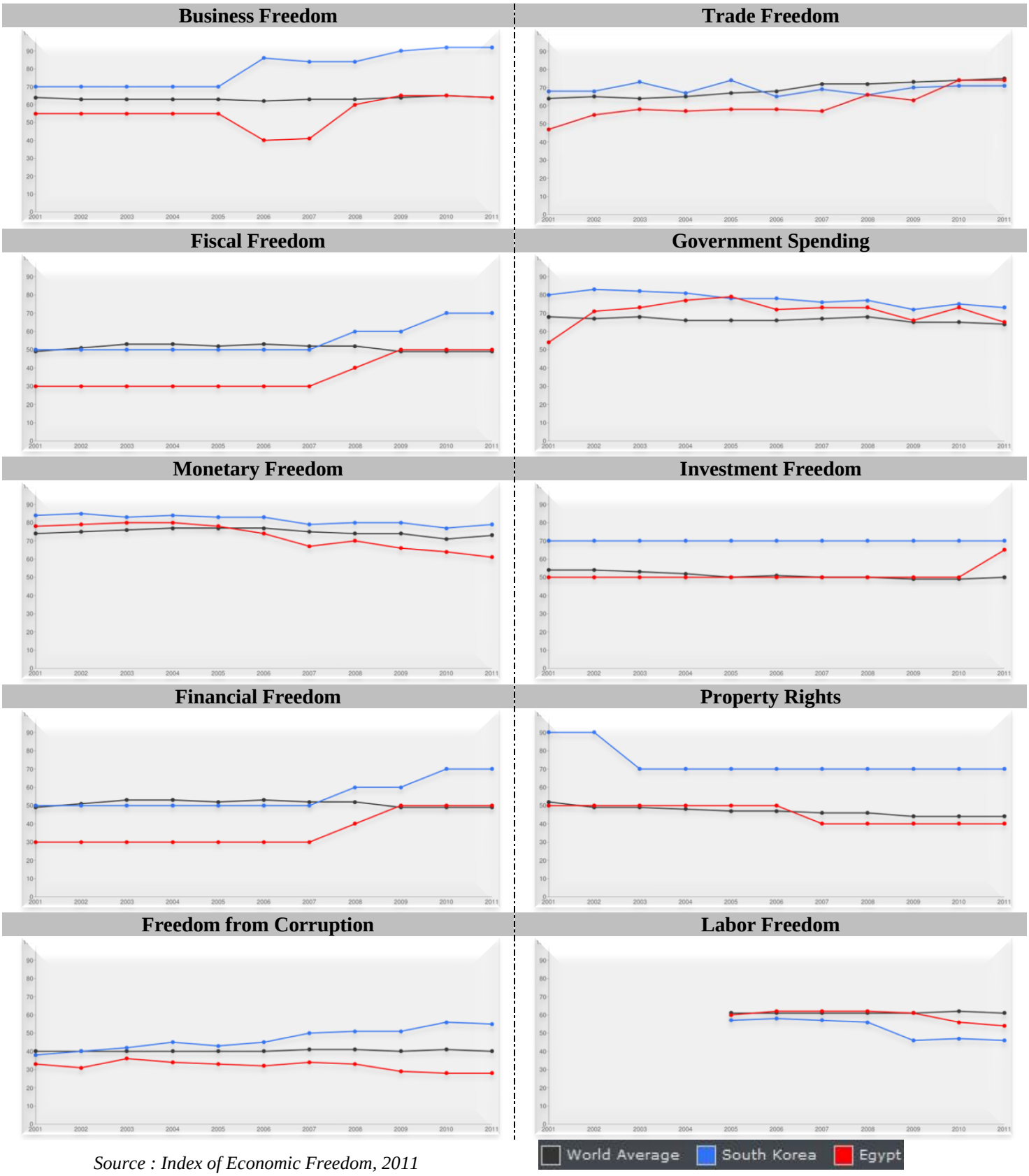
INDICATOR (2010)	ARAB REPUBLIC OF EGYPT	REPUBLIC OF KOREA
Total Area	1,001,450 sq km	99,720 sq km
Boarder Countries	Gaza Strip - Israel - Libya - Sudan	North Korea
Language	Arabic - English - French	Korean - English
Population	82.1 million	48.8 million
Population Growth Rate	1.96 %	0.23 %
Life Expectancy	72.7 years	79.1 years
Urban Population	43.4 % of population	83 % of population
HDI (Human Development Index)	113 (Medium)	15 (Very High)
Income Category	Lower Middle Income	High Income
GDP Growth	5.2 %	6.1 %
GDP (US Dollars)	$ 218.466 billion	$ 1,007.08 billion
GDP Composition by Sector	Agriculture : 14 % Industry : 37.5 % Services : 48.3 %	Agriculture : 2.6 % Industry : 39.3 % Services : 58.2 %
GDP Deflator (Index, Base Year as per country's accounts = 100)	210.3	111.9
GDP Per Capita (US Dollars)	$ 2,788.8	$ 20,590.9
GDP (PPP) (US Dollars)	$ 497.8 billion	$ 1,459.3 billion
GDP Per Capita (PPP) (US Dollars)	$ 6,354.4	$ 29,835.9
GDP Share of World Total (PPP)	0.672 %	1.968 %
Implied PPP Conversion Rate	2.424	797.844
Investment (% of GDP)	18.9 %	28.7 %
Gross National Savings (% of GDP)	16.9 %	31.5 %
Inflation, Average Consumer Prices (Indexed to Year 2000 = 100)	213.8	116.1
Inflation (Average Consumer Price Change %)	11.7 %	2.9 %
Inflation, End of Year (Indexed to Year 2000 = 100)	220.1	117.8
Inflation (End of Year Change %)	10.7 %	3.6 %
Import Volume of All Items Including Goods and Services (% Change)	0.03 %	17.3 %
Import Volumes of Goods Only (% Change)	-4.1 %	18.9 %
Export Volume of All Items Including Goods and Services (% Change)	-3.4 %	14.2 %
Export Volumes of Goods Only (% Change)	-8.9 %	15.8 %
Exports (US Dollars)	$ 25.02 billion	$ 464.3 billion
Imports (US Dollars)	$ 51.5 billion	$ 422.4 billion
Value of Oil Imports (US Dollars)	$ 5.2 billion	$ 72.5 billion
Value of Oil Exports (US Dollars)	$ 8.03 billion	$ 0 billion
Export Commodities	Crude Oil and Petroleum Products - Cotton - Textiles - Metal Products - Chemicals - Processed Food	Semiconductors - Wireless Telecommunications Equipment - Motor Vehicles - Computers - Steel -

INDICATOR (2010)	ARAB REPUBLIC OF EGYPT	REPUBLIC OF KOREA
		Ships - Petrochemicals
Export Partners	US - Italy - India - Spain - Saudi Arabia - France - Libya - South Korea	China - US - Japan
Import Commodities	Machinery and Equipment - Foodstuffs - Chemicals - Wood Products - Fuels	Machinery - Electronics and Electronic Equipment - Oil - Steel - Transport Equipment - Organic Chemicals - Plastics
Import Partners	US - China - Germany - Italy - Saudi Arabia	China - Japan - US - Saudi Arabia - Australia
General government revenue (% GDP)	25.1 %	23.7 %
General government total expenditure (% GDP)	33.4 %	21.3 %
Total Government Net Lending / Borrowing (% GDP)	-8.3 %	2.4 %
Total Government Net Debt (% GDP)	60.6 %	29.6 %
Total Government Gross Debt (% GDP)	73.8 %	30.9 %
Current Account Balance (US Dollars)	$ -4.3 billion	$ 28.2 billion
Current Account Balance (% GDP)	-1.9 %	2.8 %
Health Expenditure (% GDP)	6.4 %	6.5 %
Education Expenditure (% GDP)	3.8 %	4.2 %
Military Expenditure (% GDP)	3.4 %	2.7 %
Literacy Rate (% Population)	71.4 %	97.9 %
Population Below Poverty Line	20 %	15 %
Labor Force	26.2 million	24.8 million
Unemployment Rate (% Labor Force)	9.2 %	3.7 %
Electricity Production	123.9 billion kWh	417.3 billion kWh
Oil Production	662.600 bbl / day	48.400 bbl / day
Natural gas Production	62.7 billion cu m	542 million cu m
Agricultural Products	Cotton - Rice - Corn - Wheat - Beans - Fruits - Vegetables - Cattle - Water Buffalo - Sheep - Goats	Rice - Root Crops - Barley - Vegetables - Fruit - Cattle - Pigs - Chickens - Milk - Eggs - Fish
Industries	Textiles - Food Processing - Tourism - Chemicals - Pharmaceuticals - Hydrocarbons - Construction - Cement - Metals - Light Manufactures	Electronics - Telecommunications - Automobile Production - Chemicals - Shipbuilding - Steel
Industrial Production Growth Rate	4.4 %	16.6 %
Main Cities	Cairo - Alexandria	Seoul - Busan - Incheon - Daegu - Daejon
Internet Users	20.1 million	39.4 million
Airports (#)	86	116
Railways	5,083 km	3,381 km
Roadways	65,050 km	103,029 km
Waterways	3,500 km	1,608 km
Coastline	2,450 km	2,413 km
Merchant Marine (#)	66	819
Ports and Terminals	Ain Sokhna - Alexandria - Damietta - El Dekhella - Port Said - Sidi Krir - Suez	Incheon - Pohang - Busan - Ulsan - Yeosu
Central Bank Discount Rate	8.68 %	1.25 %
Exchange Rate (Per US Dollar)	$ 1 USD = 5.612 EGP	$ 1 USD = 1,153 KRW
Comparator Economies	Saudi Arabia - United Arab Emirates - Turkey - Jordan - Lebanon - Syria	Australia - Japan - China - Russian Federation - Brazil - India
Corruption Index (World Rank)	98	39
Economic Freedom (World Rank)	96	35
Economic Freedom Score		

INDICATOR (2010)	ARAB REPUBLIC OF EGYPT	REPUBLIC OF KOREA
		
Economic Freedom Score Over Time		
Economic Freedom (Country Comparison)		

Sources : Economy watch 2010 - CIA, World fact book 2010 - Transparency international, Corruption index 2010 - Index of Economic freedom, 2011

Figure 7 : 2011 Index of Economic freedom in Egypt and South Korea



Source : Index of Economic Freedom, 2011

4. DOING BUSINESS

Table 2 : Doing Business 2011, Rankings of Egypt and South Korea

	EGYPT			SOUTH KOREA		
TOPIC RANKINGS	**DB 2012 Rank**	**DB 2011 Rank**	**Change in Rank**	**DB 2012 Rank**	**DB 2011 Rank**	**Change in Rank**
Starting Business	21	18	- 3	24	59	+ 35
Dealing with Construction Permits	154	155	+ 1	26	27	+ 1
Getting Electricity	101	99	- 2	11	9	- 2
Registering Property	93	94	+ 1	71	74	+ 3
Getting Credit	78	75	- 3	8	8	no change
Protecting Investors	79	74	- 5	79	74	- 5
Paying Taxes	145	139	- 6	38	40	+ 2
Trading Across Borders	64	64	no change	4	10	+ 6
Enforcing Contracts	147	144	- 3	2	4	+ 2
Resolving Insolvency	137	136	- 1	13	13	no change
Doing Business Rank	110	108	- 2	8	15	+ 7

Source : Doing Business, 2011

Table 2 shows the large difference between Egypt and South Korea in regard to doing business indicators in 2010 and 2011. The speedy development over the last three decades made Korea among the world's 13th largest economy. The government policies during the IFC was relying on the SMEs role. A lot of business regulation reforms including the online system for business registration, and the advanced e-government. "In 2008 recently elected president Lee, Myung-bak launched the presidential commission on national competitiveness which trigger the economic reform in Korea. Nowadays, Korea is taking serious steps to ease the administrative burden of taxes and merging four local taxes into two. UNI-PASS (or the international single window) in Korea is considered one of the world's few 100 % electronic clearance portals, as it decreased the average imports and exports time from 11 to 8 days. Korea took steps in protecting investors and creditors by applying the corporate governance, giving minority shareholders more rights, and in 2009, Korea activated the bankruptcy law to maintain further companies working during the global economic crisis. In 2010, Korea made business start-up easier and less costly through an online system, Start-Biz Online, which managed by Small and Medium Business Administration." (*Doing Business of Korea, Rep., 2012*) Also abolishing many industry obstacles to entry in order to support new business. Korea strengthened construction permitting which permits regulators to spotlight their power on additional complex projects. All these factors and more made Korea's growth rate achieved 6.1 % in 2010, the uppermost within OECDs which endeavor to make Korea good for investment.

CHAPTER (2)

PPP Program : Origins & Characteristics in Egypt and South Korea

PART ONE : THE PPP PROGRAM IN EGYPT AND SOUTH KOREA :

1. THE EGYPTIAN PPP PROGRAM

(1.1) Overview :

Since 2004, key structural reforms have been implemented by GOE, these reforms are delivering results. To sustain Egypt's real GDP growth prospects of around 7 – 8 % in the future, Egypt needs more infrastructure investments. It is estimated that Egypt should allocate from 5.5 % to 7 % of its annual GDP to cover its new and maintenance infrastructure needs representing annual spending of $ 13 billion USD. The GOE estimates that it can realistically mobilize 10 % to 15 % of infrastructure spending through PPPs. The GOE has launched a PPP program to execute the economic reform agenda and strategy to boost private sector involvement and spending in public social infrastructure services. (*The National Program for PPP in Egypt. PPPCU, June, 2009*) stated "The principal objectives of PPP program :

1. Significantly expand public infrastructure (water, sanitation, transport, schools, hospitals, etc) to meet the growing demand for public services.
2. Improve the quality of public infrastructure and services.
3. Introduce private sector efficiency and cost effectiveness in all phases of public infrastructure and services, including financing, design, construction and operation.
4. Change the focus of public procurement from inputs into outputs.
5. Facilitate innovation in design, construction and delivery.
6. Promote greater business opportunities for Egyptian contractors, service providers, and funding institutions.
7. Progressively transform the Government from a direct financier and provider to a policymaker, purchaser and regulator."

(1.2) Key Elements :

The PPP program sets out a series of parameters for the development of PPP projects, including :

1. The Government will contract with private sector companies to finance, design, build, and operate public infrastructure for public services or for its own use. At the end of the contract, the infrastructure will be transferred to the Government.
2. The contracts will be long-term, up to 30 years depending on the project.
3. Unlike the conventional public civil work procurement which is based on input specification, PPP procurement is based on output specifications. The Government client defines the services that are required

in output or functional terms, while providing greater flexibility to the private Service Provider in design, construction and delivery.

4. All PPP contracts will be awarded through a public tender procedure. It involves :

(a) A broad dissemination of opportunities to potential Service Providers and investors in Egypt and abroad.

(b) High quality project preparation with the assistance of external transaction advisors, lawyers, and technical consultants.

(c) Fair and transparent procedures for prequalification investor due diligence and the tender award.

5. Under the PPP contract, the Service Provider will receive periodic availability payments tied to delivery and performance.

6. Each PPP contract will include procedures to ensure regular performance reporting and monitoring.

(1.3) Active Sectors :

The successful PPP project of the New Cairo Waste Water project (NCWW) indicates the potential for future PPP procurement due to government support, new PPP law, and the PPP enabling environment which make Egypt a potentially vibrant PPP market, capable of attracting foreign investment in sectors such as waste water, transport and healthcare.

PPPCU has identified the following as priority sectors for PPP projects (Schools - Water - Hospitals - Roads - Wastewater).

Most project loans to date have been in USD in the petrochemicals, ports and other export-earning sectors. The Government's policy to fund investment spending in EGP to avoid exchange rate risk.

The following table illustrates the Egyptian PPP Pipeline projects within the current (5 - years plan) from 2009 to 2014

Table 3 : The Egyptian PPP Pipeline Projects in the current 5 years plan (2009 - 2014)

Sector	# of projects	Approximate Value (USD)
Education sector	7	$ 5 billion
Health sector	5	$ 1.03 billion
Utilities sector (wastewater Treatment)	6	$ 2.20 billion
Transportation sector	14	$ 7 billion
Total	**32**	**$ 15.23 billion**

After the Egyptian revolution, political instability and lack of public investments have shown some rises to different ideas about PPP and investment in a total, concentrating on areas that were less costly, less risky and more social friendly, and directed to the benefits of the poor.

According to Rt. Hon Alderman Michael Bear, the Lord Mayor of London city, who visited Egypt October, 2011 and headed the British Business delegation: "It's up to the Egyptian government to decide its priorities. These three sectors, we think are of interest for Egypt, building low-cost housing, hospitals,

schools and general infrastructure projects which requires long-term investment under the PPP model, the public sector, short of adequate capital, hires private companies to build and run a project for 20-30 years. The government then pays running costs in installments. Also there is a list of other suggested projects included toll roads, airports and ports, all of which have a near-guaranteed flow of revenues and are less risky"[12].

(1.4) Legal and Regulatory Framework :

Following the evolution of the PPP in the UK and other European countries, the Egyptian government expects to benefit from the private sector' knowledge, experience and resources to facilitate the timely and cost effective procurement of works and services. Further, the government seeks to ensure better contract management through the fair creativity of the developers, avoid short term significant capital expenditure, and therefore procure a larger number of projects, limit the government's debt, and pass a substantial part of project risk to the private sector. Its main objectives are to create a market-friendly regulatory environment, establish the administrative basis necessary to coordinate this development and clarify the procurement process for PPP's.

GOE has drafted a PPP law no. 67 of 2010 which approved by the Parliament in May 2010, and came into force in July 2010. The Law provides a framework for the efficient implementation of PPPs in accordance with the best international practice with terms of covering a list of sectors, identification of the granting authorities, the creation of clear tender rules for PPPs based on international best practice, rules on the form and content of the PPP Contract, and dispute resolution mechanisms including arbitration.

"The PPP law in Egypt ensures the presence of a legal framework to govern the partnership with private sector and guarantee the investor selection in a transparent, fair and competitive manner as well as determining the scope of partnership projects, and the role of various government entities to choose, certify and follow up on the performance of PPP projects, and facilitate the private sector role to finance such projects.

The law is meant to regulate most projects in Egypt that are partly financed by the private sector, and to standardize all related procedures, and there would be no need for Parliament to approve each individual project, which consider another significant loss of power to the government, having already lost influence over decisions on how to manage and finance larger infrastructure projects. From the private investor's point of view, transparency and predictability would be significantly increased once the new law is implemented."

[12] Hussein, Salma. "British business delegation offers Egypt new public-private partnerships." Al-Ahram Online (Cairo), October 5, 2011.

(1.5) Achievement To-Date :

The program has achieved a number of successes , including:

1. A new PPP law has been drafted to strengthen and clarify the legislative framework of PPPs and to establish the institutional guidance for implementation required.
2. Significant training and capacity building activities has been undertaken for government officers to increase PPP awareness.
3. PPPCU won (PPP 2008 Award) among the Euro-Mediterranean Countries at 'The Second International Conference for Public-Private Partnership' that was held in Paris, France in October 29-30, 2008 for its PPP program.
4. A bilingual website to promote to the PPP has been established: (*www.pppcentralunit.mof.gov.eg*).

2. THE KOREAN PPP PROGRAM

(2.1) Overview :

"The PPP projects used to be centered around transportation infrastructure, but since the revision of the PPP Act in 2005, the scope of potential PPP projects now covers social infrastructure that is closely related to people's everyday lives, such as schools, healthcare facilities, culture and sports centers, and public rental housing." (*Kim, Jay-Hyung, 2011*)

The PPP works in Korea by enhancing the efficiency of infrastructure investment through the bundling asset creation, and the package deal of DBFO, and delivery on budget and time. In addition, the PPP increases resources without adding to government borrowing. In 1995 when PPP projects were first introduced, ₩ 400 million KRW was invested in PPP projects, which was just 0.5 % of total SOC investment. However, by late 2008, ₩ 3.7 trillion KRW was invested in PPPs, taking up about 17.3 % of total SOC investment.

(2.2) Key Elements :

Both the government and a private company can initiate a PPP project :

1.Solicited Projects: The competent authority identifies a project for private investment and announces an RFP by developing a potential project after considering related plans and demands for the facility.

2. Unsolicited Projects: The private company (project proponent) submits a project proposal, and then the competent authority examines and evaluates the contents, and VFM of the private proposal, and designates it as a PPP project. A bonus points (10 % maximum) awarded to the initial proponent.

The VFM test is one of the key elements of benchmark government cost (PSC) against (PFI) to assess whether PFI achieves VFM. According to this result, the level of project cost, user fees, subsidy scale is determined.

(2.3) Active Sectors :

There are 47 types of facilities in 15 sectors are eligible for the PPP, These sectors are (Roads - Rails - Ports - Airports - Water Resources - Communications - Energy - Environment - Logistics - Culture and Tourism - Education - National Defense - Housing - Welfare - Forestry).

In Korea, the procurement schemes are:

1. BTO (in solicited and unsolicited projects), which generate high return because of its high risks. The investment comes from user fees and MRG from solicited projects, such as : Roads, Seaports, Railways, etc.

2. BTL (in solicited projects), which generate low returns because of its low risks, such as : Schools, Dormitory, Military Housing, etc.

Also, depending on the PPP structure, another procurement methods are applicable such as BOO and BOT.

(2.4) Legal and Regulatory Framework :

"The PPP was first introduced in Korea with the enactment of the Promotion of Private Capital into SOC Investment Act in 1994. The Act was amended to the Act on (PPI Act) in 1998, after the beginning of 'The Asian financial Crisis' in 1997.

Implementation of procedures, rights and obligations, as well as a risk sharing mechanism, are clearly defined in the Act to effectively reduce potential business risks for private sector participants.

In the amendment of the PPI Act in 2005, a service contract type (BTL) of private participation was introduced in addition to the existing user fee type (BTO).

The PPP Act directs the MOSF and PIMAC to issue the PPP Basic Plan in order to provide PPP policy directions and develop PPP implementation guidelines."

(2.5) Achievement To-Date :

1. As of September, 2009, PPP contracts for 461 projects had been awarded. 106 BTO and 145 BTL projects have been completed to provide services to the public.

Table 4 : Status of BTO and BTL projects in Korea in 2009

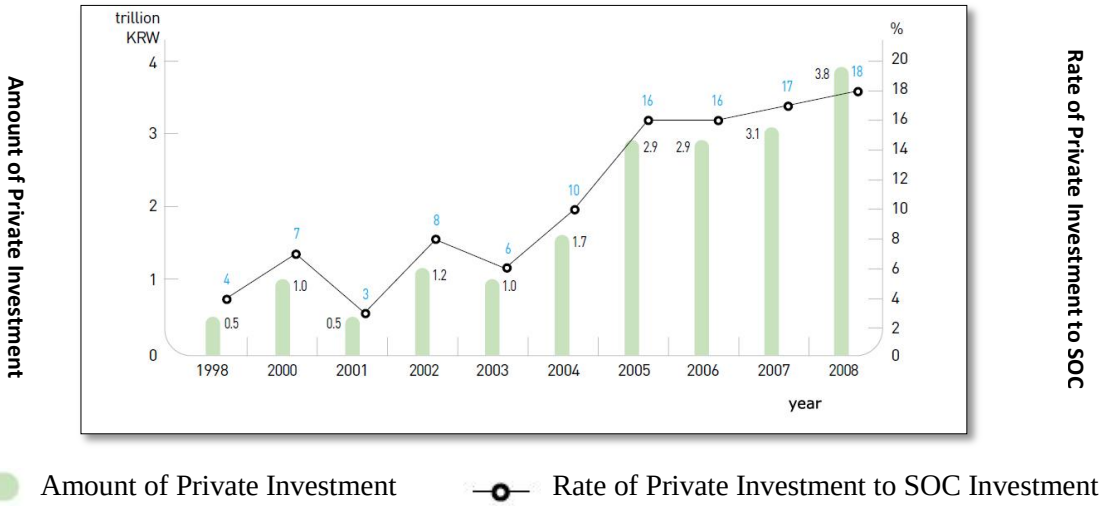
Status	BTO Projects			BTL Projects	Total
	National	Local	Sub-Total		
Under Operation	24	82	106	145	**251**
Under Construction	15	31	46	110	**156**
Contract Awarded	8	9	17	37	**54**

Total	**47**	**122**	**169**	**292**	**461**

Source : PIMAC, September 2009

2. Private investment has been continuously increasing since the introduction of the PPP Act and has been playing a key role in providing infrastructure in a timely manner, complementing public investment.

Figure 8 : Private Investment Trend in Korea from 1998 to 2008



Source : PIMAC

3. Contribution of The PPP in Economic Growth :

Table 5 : Growth impact of the PPP according to KDI macroeconomic model

(Unit : Billion KRW)

Year	GDP (nominal)	PPP Investment	Growth Impact (%)
2001	65,142	115	0.035
2002	72,054	130	0.052
2003	76,711	133	0.048
2004	82,689	225	0.060
2005	86,524	345	0.094
2006	90,874	467	0.127
2007	97,501	617	0.154
2008	97,779	805	0.198

Source : Ministry of Strategy and Finance

Table 5 shows the positive correlation between PPP investment and economic growth, as the GDP growth increased from 0.035 % in 2001 to 0.198 % in 2008 based on the standard price.

PART TWO : PPP PROJECT LIFE CYCLE IN EGYPT AND SOUTH KOREA :

After reviewing the PPP program in both Egypt and South Korea, the following three parts will illustrate the mechanism of how PPPs work in each country, This part will include the main difference points between the PPP in both countries according to the project life cycle in each country.

1. PPP PROJECT LIFE CYCLE IN EGYPT[13]

PPP projects follow different few models, BOT - BOOT - BLT . The most popular one in Egypt is BOT. There are seven phases for the overall PPP project life cycle stated in (*The National Program for Public Private Partnership in Egypt. PPPCU, June, 2009*), as follow :

"Phase 1 : Project Initiation and Screening :

Four steps for selecting and screening PPP projects:

1. Selection of projects to screen as PPP candidates by the line ministries.
2. Completion of the project PPP screening checklist and concept note.
3. Review and confirmation of PPP Project documentation by the PPPCU.
4. Decision by the PPP ministerial committee on whether the project should proceed to phase 2.

Phase 2 : Business Case :

Provides an analysis of the project's feasibility as a PPP, as well as develops a proposed transaction structure. That occur through some steps start with developing the plan to complete the business case, Then Retaining needed outside PPP advisors to prepare the business case, Then Refining the project scope through specifying the PPPs output level of service, Then Identifying and evaluating project investment options, Then Developing and implementing the stakeholder plan, Then Conducting the project affordability analysis, project demand analysis, technical feasibility analysis, financial feasibility analysis, economic feasibility analysis, institutional and legal feasibility analysis, environmental impact analysis, and project risk analysis, Then Proposing the risk allocation structure, Then Testing the market through assessing private sector interest in the project, and finally Reviewing the Business case by the PPPCU.

Phase 3 : Conducting PPP Affordability & Risk Assessment :

This phase is addressing the PSC valuation as well as the (VFM) assessment of a PPP project to compare the PPP with public procurement. The PSC is a key component during the bidding process as it

[13] The National Program for Public Private Partnership in Egypt. PPPCU, June, 2009.

enables line ministries to compare and validate financial alternatives to confirm that the PPP project will yield better VFM than comparable public procurement. This phase occurs through three steps:

1. The line ministries complete the Value for money test.
2. The PPPCU review the line ministry's analysis.
3. The PPP ministerial committee reviews the project and PPPCU's recommendations.

Phase 4 : Tendering and Procurement :

The PPPCU in cooperation with the line ministries implement project tendering and procurement. PPPCU will review procedures and document and provide approvals, in many cases the PPPCU provides the line ministries with model documents to use in preparing Qualification and Tendering Documents. The procedures for the tendering and procurement process as follow :

1. Develop the implementation plan and schedule for tendering and procurement of the project.
2. Issue the expression of interest (EOI) and memorandum information.
3. Finalize of the pre-qualification document and forming the committee.
4. Receive the evaluation qualifications from interested bidders.
5. Prepare of the draft bidding documents and send it to the qualified bidders.
6. Form the bid opening and bid evaluation committees.
7. Decide if 'Competitive Dialogue' technique will be allowed or not.
8. Issue the tender documents.
9. Receive Q&A from qualified bidders and conducting Q&A conference.
10. Finalize the tender documents and Receive the final proposal from qualified bidders.

Phase 5 : Bidders Selection :

This phase occurs through the following procedures:

1. Opening technical bids.
2. Evaluating technical bids.
3. Conducting the competitive dialogue.
4. Announcement of the technical proposal evaluation results.
5. Opening financial bids.
6. Evaluating financial bids and completing the financial model’s comparative.
7. Reviewing the line ministry’s financial model by the PPPCU.
8. Selection and announcement of the winning bidder.

Phase 6 : Contract Signature and Financial Closure :

In this phase, the line ministry finalizes the contract negotiations with the preferred bidder, and ensures that signed contracts reach financial closure agreements with lenders and co-financiers.

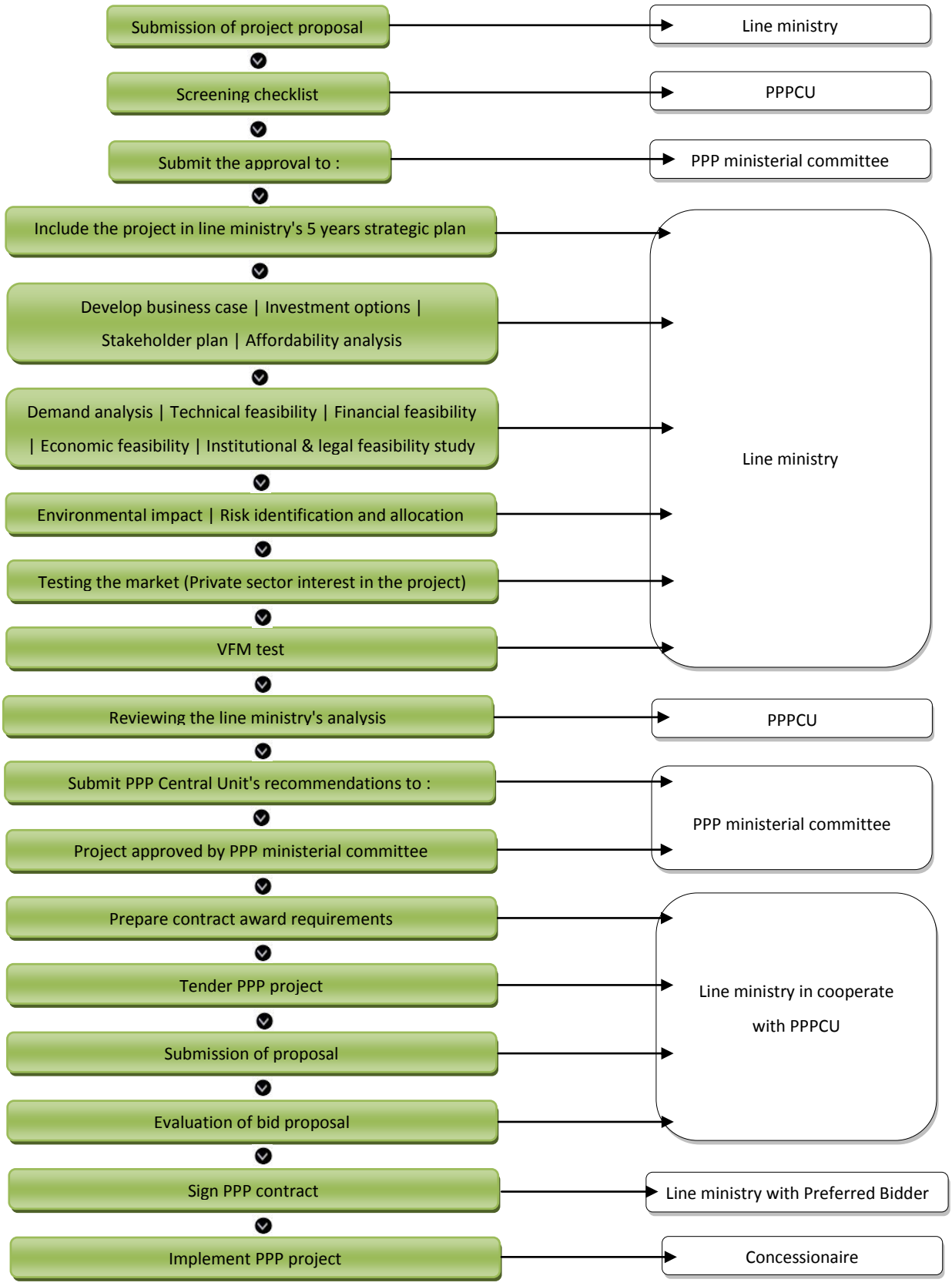
Phase 7 : Post Award PPP Performance Monitoring & Contract Compliance :

This phase occurs through the following procedures:

1. Preparation of PPP contract monitoring plan, and the establishment of performance control committees.
2. Monitoring performance during construction and operation.
3. Managing requests to revise or renegotiate contract and managing dispute resolution.
4. Managing PPPs at the end of the contract and asset transfers."

The following flowchart shows the PPP project life cycle in Egypt (The Eligible procurement method is BOT) :

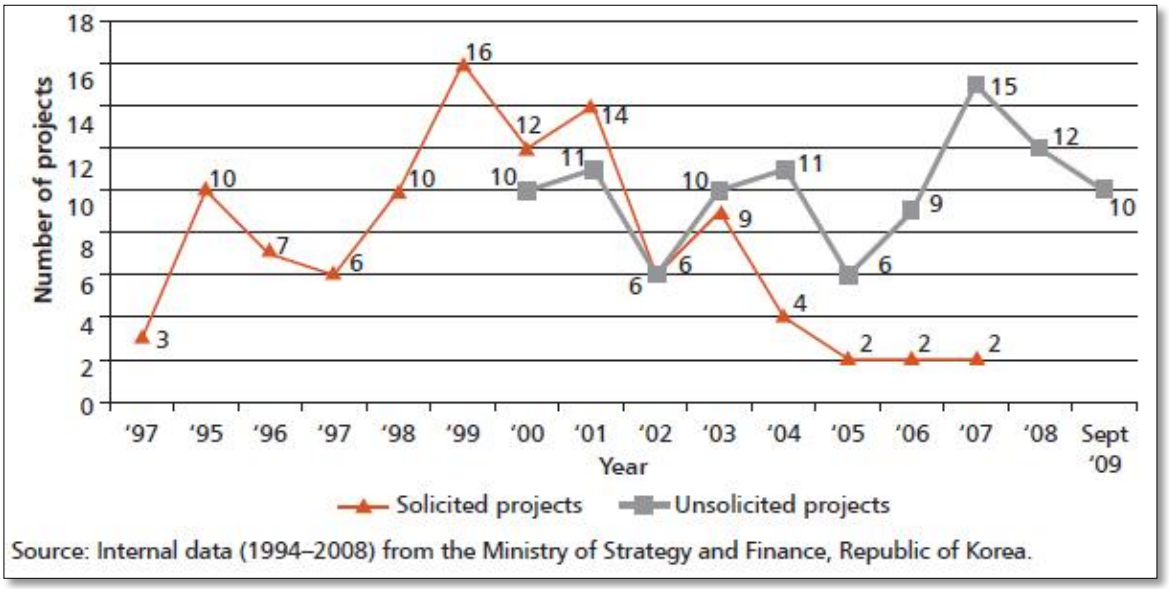
Figure 9 : PPP Project life cycle (for BOT projects) in Egypt



2. PPP PROJECT LIFE CYCLE IN SOUTH KOREA

"PPP projects in South Korea are categorized into solicited and unsolicited, depending on who initiates the project. For a solicited project, the competent authority, central or local government, identifies a potential PPP project and solicits proposals from the private sector. In the case of an unsolicited project, the private sector identifies a potential PPP project and requests the project designation as a PPP from the competent authority. The concessionaire is selected under a competitive bidding process, although the initial proponent may obtain extra points in the bid evaluation"[14].

Figure 10 : Number of Solicited and Unsolicited BOT projects approved by year in South Korea



There are seven steps for both the Solicited and Unsolicited PPP projects' life cycle in South Korea.

For Solicited projects as follow : (*Kim, Jay-Hyung, 2011*)

"Step 1 : Designation of The PPP Project :

The candidate project should be under one of the 46 facility types in 15 sectors covered by the PPP act. The competent authority should consider whether the project is in line with the national infrastructure investment plan. PIMAC is one of the MOSF agencies which specialized in conducting PFS in order to examine the project feasibility for PPP procurement against traditional public procurement.

In Korea, if the project cost expected to be less than ₩ 200 billion KRW, the competent authority itself conducts the feasibility study and VFM, while if the project cost expected to be more than that amount or requiring more than ₩ 30 million KRW as government subsidy, PIMAC conducts the feasibility study and VFM.

[14] Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin, and Seung-yeon Lee. Public–Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea. Manila: ADB, 2011.

Step 2 : Announcement of Request for Proposal (RFP) :

The competent authority must announce RFP within one year from the project designation. The RFP must be reviewed by the PRC (PPP Review Committee) after PIMAC review.

RFP must include estimated project costs and profits, location, duration, scale, procurement method, government subsidy, management and operation of the facilities, and concessionaire qualifications.

The project must be advertised in the government journal, and the competent authority website, in addition to PIMAC website.

Step 3 : Submission of Project Proposals :

According to the RFP, private companies submit its proposals to the competent authority. They are allowed to ask questions for clarifications, and the competent authority must share the answers between all bidders.

The project proposals must include the basic design documents, total costs and financing plan in details, information about ownership and profit-making period, management and operation plan, revenue estimation including the user fee, supplementary projects, subsidies requested, and if there are any modifications to the RFP.

Step 4 : Bid Evaluation and Selection of Preferred Bidder :

According to the criteria in RFP, the competent authority forms an evaluation team. The evaluation is conducted in two stages:

1. Pre-Qualification Evaluation : Evaluate the bidders capacity to DBFO. Only the bidders who satisfy this requirement can proceed to the second stage.

2. Technical and Price Evaluation : According to the project characteristics, total evaluation scores are distributed between technical weight and price weight. The competent authority selects a preferred bidder based on the results of the evaluation. It selects at least 2 potential concessionaires in case of failure negotiation with the preferred bidder.

Step 5 : Negotiation and Contract Award :

The competent authority negotiates with the preferred bidder on details of contract terms. It forms a negotiation team, including legal, financial, and engineering experts. The competent authority may request PIMAC to provide support as advisor in negotiation.

Step 6 : Approval of Detailed Engineering and Design Plan for Implementation :

The concessionaire constructs (DEDPI) based on the PPP contract. The competent authority approves the plan within one year from its designation.

DEDPI must include the location, the total site area, construction plan, technical details, land acquisition plan, supplementary projects, and financing plan, etc.

Step 7 : Construction and Operation :

According to the schedule specified in the PPP plan, the concessionaire begins to construct PPP facilities. Permits and approvals from relevant bodies must be acquired in a timely manner. The competent authority monitors the progress and the concessionaire should submit reports on a regular basis to the competent authority.

After construction, the concessionaire is granted to operate the facilities and collect user fees to recover its investment. Also the concessionaire should submit annual management and operational plans, performance, and revenue reports to the competent authority."

- For Unsolicited projects, the first four steps are different from the solicited projects, while the steps from 5 to 7 are the same. The different steps are as follow (*Kim, Jay-Hyung, 2011*) :

"Step 1 : Submission of Project Proposal :

The unsolicited proposal should be examined by the public sector to see that the project is in line with the government investment plan or not.

Step 2 : Review of Project Proposal :

The VFM test should be conducted by PIMAC. The competent authority should notify the private proponent whether it can proceed with the PPP project or not, depending on the VFM test.

Step 3 : Notification of Request for Alternate Proposals :

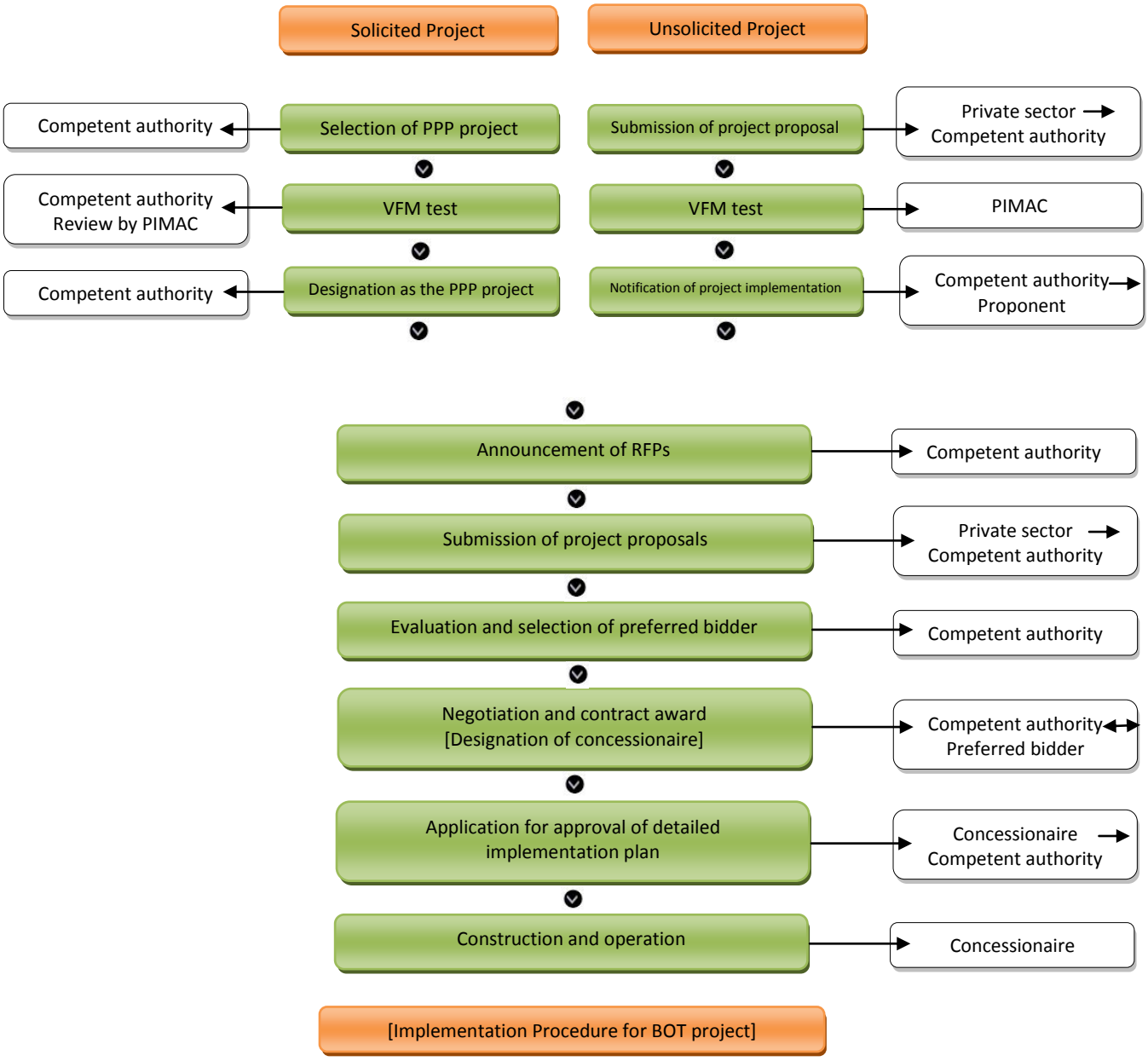
The competent authority should declare to the public about the proposed project to allow other private parties to submit alternate bids to ensure fair competition. Extra points (10 %) should be awarded to the initial proposal.

Step 4 : Bid Evaluation and Selection of Preferred Bidder :

The competent authority assigns to an evaluation team to evaluate all proposals, including the initial one and selects the preferred bidder. If there is no other submitted proposal, the initial proposal is the designated as potential concessionaire."

The following flowchart shows the PPP project life cycle in South Korea (The Eligible procurement method is BTO):

Figure 11 : PPP Project life cycle (for BTO projects) in South Korea



- **<u>Remarks on the PPP Life Cycle in Egypt and South Korea :</u>**

<u>1.</u> It's clear that there are no unsolicited projects in Egypt, as from the PPP life cycle in Egypt all the project proposals identified by the competent authority (line ministries). That indicates that the private sector in Egypt is only waiting for the government initiatives to submit its tenders. As well as the private sector has no incentives or bonus points to create any new idea or project.

2. Although the life cycle phases in both countries are the same number of steps, but in the Egyptian case it looks more complicated and bureaucratic than in the Korean case. The procedures between PPPCU, line ministries, and PPP ministerial committee are too long and taking too much time.

3. In the PPP designation, the competent authority in Korea considers that the PPP project is compatible with medium and long national infrastructure investment plan. While in Egypt, the PPP project is included in the five years strategic plan upon approval from the line ministry and PPPCU and the implementation comes later.

4. In Korea, PIMAC is only intervenes in reviewing and conducting PFS if the project cost expected to be more than ₩ 200 billion KRW or call for more than ₩ 30 million KRW as government subsidy. While in Egypt, PPPCU reviews and conducts all the PPP project analysis no matter what the total costs or the government subsidy amount.

5. The role of the PPP ministerial committee in Egypt always comes after PPPCU work phase, as it reviews and revises the PPPCU's work, which causes a delay to the PPP process and implementation. While in Korea, the role of the PRC comes only in the announcement of RFP step as the RFP must be reviewed by the PRC after PIMAC review.

6. In the Egyptian case, VFM test comes in the third phase of Conducting PPP Affordability & Risk Assessment. While in Korea, VFM test comes in an early stage directly after the project proposal submission.

7. In Egypt, selecting the preferred bidder is depending on evaluation of the technical and financial bids. While in Korea, there are two stages of conducting Bids evaluation: (i) The Pre-Qualification stage to evaluate the bidders capacity to DBFO. (ii) The technical, and price evaluation stage. Only the bidders who satisfy this requirement of the first stage can proceed to the second stage.

PART THREE : DEDICATED PPP UNITS IN EGYPT AND SOUTH KOREA :

As mentioned in the OECD Principles for Private Sector Participation in Infrastructure: "Authorities responsible for privately operated infrastructure projects should have the capacity to manage the commercial processes involved and to partner on an equal basis with their private sector counterparts."[15]

[15] OECD. Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structures. Paris: 2010.

World Bank analysts suggest that "successful examples of PPP units share similar traits. Their staff show a mix of expertise (lawyers, economists, project finance experts, engineers, etc.) and they tend to be attached to departments or ministries with a horizontal policy coordinating function, such as treasury or finance ministries. They also have a real overall policy co-ordination function supported by high-level political commitment."

1. PPPCU IN EGYPT

One of the important tools in the Egyptian PPPs' new policy, designed as a signal for the political commitment to attract private sector participation in PPPs.

In 2006, The government established the PPP central unit inside the MOF to coordinate and oversee PPP strategy. PPPCU was modeled on similar structures in countries such as the UK, South Africa and India. It was commissioned to produce initial guidance material, draft the PPP law, establish satellite PPP units within line ministries, build the capacity of all government entities working on PPPs, and handle communications and public awareness.

Article 16 of the PPP law, which was approved in May 2010, provides the legal basis for the unit. The PPPCU is considered the financial, technical and legal expert with regard to the PPP.

PPPCU also is working as an expertise unit for supervision and coordination to line ministries for better PPPs implementation. Besides, the other roles of PPPCU are as follow.

Roles of PPPCU : (*As mentioned in The National Program for PPP in Egypt. PPPCU, June, 2009*).

1. Promote the national PPP plan to key stakeholders within the private and public sectors.
2. Facilitate the institutional and legal difficulties to the PPP project cycle.
3. Develop PPP best practices, standards and models for the country.
4. Legalize and develop PPP project proposals.
5. Drive PPPs pilot procurements.
6. Build capacity in the Public sector to identify, analyze, prepare, tender, contract and monitor PPP transactions.
7. Alert and motivate private contractors and lenders to enter the PPP market.
8. Support public sector in the selection of quality PPP transaction advisors.
9. Work collectively with the public sector and the advisors to ensure consistency in procedures.
10. Make sure that PPP principles, and Standard Operation Procedures (SOPs) are followed.
11. Support awarding authorities in the transparent and competitive selection of the private sector.
12. Report the project progress to the Ministerial PPP Committee.

PPPCU is Supported by :

1. The project promotion PPP Unit at the Ministry of Investment.
2. The technical assistance from UK and other OECDs consultants in the design, policies and procedures of the PPP program to develop public infrastructure and services.
3. The guideline issued by the MOF about the PPP program.
4. Overseas training of government officials on PPP design and implementation.
5. Drafting of PPP standard contracts, in cooperation with international law firms with extensive legal expertise in PPP contracts, as well as starting on the drafting of a legal framework for implementing PPPs in Egypt.

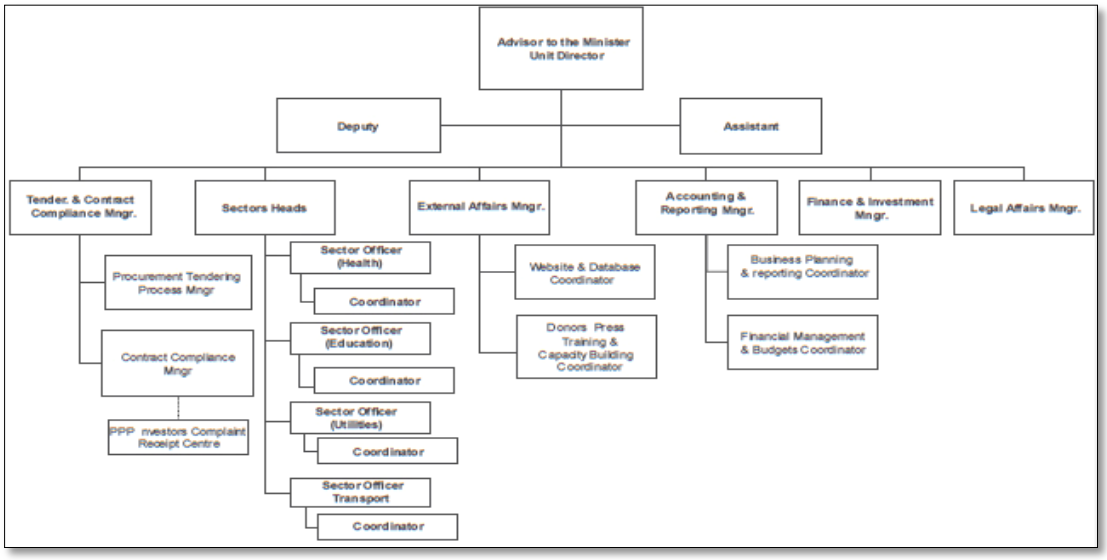
The PPP Law (no. 67/2010) and PPPCU :

- PPP law has formalized the role of PPPCU by granting it all necessary powers to oversee and coordinate all PPPs projects. Moreover, the law seeks to settle the line ministries' resistance and to acquire a high political support for the Supreme Committee by assigning its chairmanship to the Prime Minister with the membership of the ministers of 'The Economic Cabinet' (The ministers of Finance, Investment, Economic Development, Justice, Housing and Utilities, and Transportation).
- The article 4 and 17 of the PPP law sets out the power of PPPCU, as "any public entity which is willing to engage in a PPP project must get an approval from the Supreme Committee, which takes its decisions in the light of PPPCU recommendations. Also if the public entity is willing to engage in a PPP contract, it must provide the PPPCU with all the detailed information for the preparation of its report and recommendations." (Law No. 67 / 2010, and its Executive Regulations, May 2010).
- The article 18 of the PPP law gives further right to PPPCU:

"A government department that has received an approval for PPP projects must take into account the application of the PPP Central Unit's recommendations in all its procedures. The publication of any advertisement or document related to the tendered projects, including expressions of interest, prequalification invitations, information memorandums, and calls for tenders shall be done after obtaining the approval of the PPP Central Unit. The convening of committees to determine criteria and qualification, or to receive and evaluate bids shall not be valid unless a representative of the PPP Central Unit is present"[16].

[16] Law No. 67 for the year 2010, and its Executive Regulations. Al Wakae Al Masriya Journal, May 2010.

Figure 12 : PPP Central Unit's Organizational Structure



Source : Public-Private Partnership Central Unit

Problems facing PPPCU :

1. The communication problem between the PPPCU and line ministries through the establishment of the satellite PPP units in the line ministries. The obstacles in setting up those units can be accredited to the resistance of line ministries to the idea of a central unit with an overall coordination task.
2. The coordination between the two ministries (MOF & MOI), as both have been assigned the functions of PPP promotion in Egypt. The MOI may need to limit its responsibility to the investment promotion phase.
3. The insufficient number of technical staff, as PPPCU assists some ministries to develop PPP projects and this could be accredited to the technical expertise from PPPCU.
4. The highly skilled employees could be one of the difficulties facing PPPCU, especially for selecting the projects, as unskilled staff could prevent the successful completion of pilot projects.

2. PIMAC IN SOUTH KOREA

Public and Private Infrastructure Investment Management Center (PIMAC) established within Korean Development Institute (KDI) in January, 2005 with the enactment of the PPP Act in order to provide professional support for PPP projects and to conduct research on PPP policies. It consists of experts from various fields including economics, finance, accounting, law, engineering, urban planning, and more.

Roles of PIMAC :

1. According to The PPP Act :

a. PIMAC as a Researcher :

Theoretical and policy studies on PPP programs / Support for the formulation of the Basic Plan for PPP / Development of implementation guidelines.

b. PIMAC as an Advisor and Government Agency in Project Management :

Development of PPP projects / Execution and Review of VFM test / Support for formulation of RFPs / Review of RFP and concession agreement / Assistance in tendering and negotiation

c. PIMAC as a PPP Market Promoter :

International cooperation / Training programs and seminars on the PPP for public officials / Database management.

2. According to The National Finance Act :

a. PIMAC as an Evaluator and/or Government Agency in Public Investment Management (PIM):

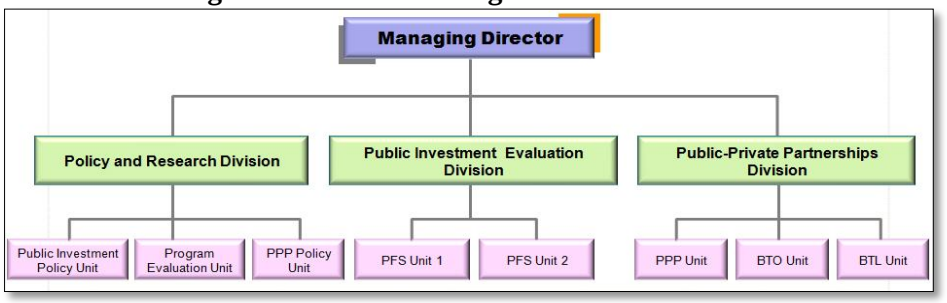
Carry out preliminary feasibility study (PFS) / Carry out re-assessment study of feasibility (RSF) / Carry out re-assessment of demand forecast (RDF) / Carry out in-depth evaluation of budgetary program (IEBP).

b. PIMAC as a Researcher :

Support for new initiatives of better PIM / Policy studies on PIM

Organizational Structure of PIMAC :

Figure 13 : PIMAC's Organizational Structure



Source : PIMAC

Main Functions of PIMAC, Compared with some other Dedicated PPP units in Developed Countries:

Table 6 : Functions of Dedicated PPP units in Korea and some developed countries

Country	Location	Policy guidance	Technical support	Capacity building	Promotion
South Korea	Independent	●	●	●	●
UK	Ministry of Finance	●	●	●	●
South Africa	Ministry of Finance	●	●	●	○
Australia	Ministry of Finance	●	●	●	●
Germany	Independent	●	●	○	○
Denmark	Line Ministry	●	●	○	●
France	Ministry of Finance	●	●	○	●

Source : PIMAC

Funding :

Fixed cost is paid by the government, and part of the variables are charged to the clients.

Fee chart is decided through discussion with clients and announced regularly, the fee level is lower than the service provided by the private sector.

Areas of expertise of PIMAC staff :

The staff includes economists, finance specialists, accountants, lawyers, as well as engineers in most of the sectors covered by PPP law.

The turn-over of financial specialists and lawyers are relatively higher than engineers.

Table 7 : Areas of expertise of PIMAC staff

Areas of Expertise	Head - Count
Economics / Business	32
Finance	3
Accounting	7
Law	5
Transport	14
Engineering (civil, road, architecture, port, environment, etc.)	15
Urban Planning	3
Tourism	1
Water Resources	1
International Cooperation	4
Total	**85**

Source : PIMAC, January 2010

PART FOUR : SOME CHARACTERISTICS OF THE PPP PROGRAM IN EGYPT AND SOUTH KOREA:

1. PPP CHARACTERISTICS IN EGYPT

1. Availability and Funding Capacity :

a.) Egypt can benefit from the availability of IFI or ECA guaranteed funding to supplement domestic and foreign commercial bank funding of large projects. That's why Egypt has a large lending volume for project financed PPPs, about € 1,369 billion EUR in the period (2006 - 2010), which reflect the relative maturity of its PPP market.

b.) Domestic financial markets in Egypt are constrained in the amount of PPP lending they can provide. As a result of the relatively small financial markets, long term funding in local currency is not prevalent. For

example, Egypt closed its first PPP in the water sector raising € 86 million EUR of its local currency financing.

2. Institutional Issues :

a.) Regular planning and announcement of national budgets don't necessarily emphasis on PPP fund, except where it is an explicit part of government infrastructure funding policy, such as the power sector.

b.) Some line ministries have some independent approach toward PPP project implementation far from the central government which plays a big role, such as the power generation sector. That's why the central government encourages participation of line ministries by creating satellite PPP units.

c.) In some cases, large and politically - not well prepared - projects required restructuring or cancellation during procurement due to insufficient preparation, such as the project of building 345 schools in various locations in Egypt, launched in 2007, and withdrawn because it was too large and ambitious for the current stage of market development in that time.

d.) Due to Lack of standard practices and documentation which cause time consuming project development processes and weak business cases, Egypt is using PSCs which is helpful to benchmark.

e.) The procurement ability of some line ministries is much more developed. For example, the Ministry of Electricity and Energy has procured a number of projects benefited from its own law and its experience and practice without the involvement of PPPCU.

3. Contracting and Regulation Framework :

a.) The authority of some sectors' laws such as electricity, ports, airports, and road sector where PPPs are prevalent can be applied, but in light of the PPP law.

b.) PPP contracts recognize the benefits, in terms of time and cost-efficiency and in relation to on-going partnering relationships. Sometimes an interim measure, such as mediation is also included.

c.) PPP contract disputes are frequently subject to arbitration rules, which broadly follow the more internationally recognized procedures and this will entail some due diligence on the part of international project investors.

4. Tendering and Bidding Process :

a.) Discussion with bidders are permitted, as the ability to discuss project specific issues with the bidders will help the public sector to learn from the expertise of the contracting community.

b.) The publication of evaluation criteria ensures transparency, as the PPP Law tender procedure in provides that bid documents prepared should include general information relating to the project, project specification and technical requirements (evaluation criteria, methodology, instructions, and a timetable for bid submissions).

c.) The PPP Law provides no preferential treatment to the Egyptian bidders. This was an issue for foreign investors due to the biasness towards local companies.

d.) The PPP Law provides for aggrieved bidders a complaint procedures to resolve complaints regarding the integrity of the bidding process.

5. Risk Allocation :

a.) Formal discussions on construction and designing during the tender process with the private sector will allow for a more iterative approach with the authority's requirements and will therefore encourage better design proposals for complex projects.

b.) The absence of strict legislative regulations of the standard of work performance means that line ministries and PPPCU must specify their standards requirements in the project contract.

c.) The PPP law protects the PPP Project against unreasonable delays or offensive rejection by the government in issuing licenses and permits. This is a favorable position as the public sector retains some of the risks associated with unreasonable delays.

d.) There are no specific legislative provisions relating to compensation payable in cases of delay in the construction. PPP contracts make provision for the relief available to the private sector for delays which affects the performance of the contract because of unexpected expenses, variations initiated by the contracting authority, and other events that are outside the Project control. This treatment should satisfy lenders and investors.

e.) PPP contracts tend to clearly set out the trigger for termination, and the rights of each party by providing the circumstances of authority default, contractor default, force majeure, and convenience. As The PPP contracts agreed to specify a clear calculation of compensation, which varies according to termination reason especially for debt protection and equity.

6. Financial Risks and Payment :

a.) Inflation risk is normally assumed by the public sector in order to maximize project cost efficiency. This risk can be covered through general indexation, benchmark or market testing.

b.) The source of the project funding determines the optimal allocation of the financial risks . A portion of the domestic funding goes for the small size PPP, but for larger projects are likely to require funding from international lenders in foreign currency. Payment always need an adjustment to cover any exchange rate movements affecting the foreign currency component of construction costs. In Egypt, there is an availability of local currency funding for the PPP, but not at fixed rates for the full loan period due to the absence of long term interest rate swap markets.

7. Finance Investment Issue :

a.) There are no restrictions on the profit distribution by joint stock companies to foreign shareholders and no restrictions on the profit remittance outside the country.

b.) State-backed guarantees to help off-set some risks exist in Egypt. Such guarantees can reduce capital costs of a project through improved lending terms.

c.) PPP law does not recognize an assignment by the way of security packages, an assignment agreement is concluded simultaneously with the facility agreement, and its exercise is subject to the declaration of an event of default.

d.) Tax law could potentially distort project procurement decisions, or could lead to inefficient capital structures for projects. Finance debtor accounting is permissible under Egyptian accounting standards, but may require a change in tax law to be used for tax purposes. The use of finance debtor accounting is typical in more established PPP markets, and is recommended by international accounting standards as it avoids many of the inefficiencies caused by fixed asset accounting in PPP projects. Without it, bidders are forced to delay dividends and pay higher taxes, which would encourage them to fund projects with more equity and less debt, making their bids more expensive.

2. PPP CHARACTERISTICS IN SOUTH KOREA

1. Sources of Fund :

a.) The private sector may need to keep the minimum required equity ratio during the construction period at least 20 % for a BTO project, or 5 % or more for a BTL project. And it can be lowered to 15 % when the investment ratio of financial investors is above 50 % of the total equity.

b.) The concessionaire is permitted to refinance according to changes in the macroeconomic environment, project risk, etc. As investors gain may increase depending on changes in capital structure and debt financing conditions. Also refinancing can be used to lower the level of the user fee.

c.) Financing through the infrastructure fund which promoted by the asset management regulation is helping to encourage investor profile diversification, as the infrastructure fund is an indirect investment facility that collects funds from investors to lend, invest in PPP projects, and distributing profits to other investors. In Korea, infrastructure fund investment increased from ₩ 80 billion KRW in 1999 to ₩ 3.3 trillion KRW in 2008.

2. Foreign Investors Encouragement :

a.) When foreigners invest more than $10 million USD to build PPP facilities in a Foreign Investment area, tax breaks are granted in the areas of corporate tax, income tax, acquisition tax, registration tax, and property tax.

b.) When foreign exchange losses arise from loans in foreign currency for construction due to fluctuation in the foreign exchange rate, the government can offer subsidies or long-term loans.

c.) For projects in which foreign investments account for a significant portion of the total investment, each foreign investor's position is respected to the fullest extent with respect to language and provisions for conflict resolution in the concession agreement.

3. Cost over-run and Time over-run :

PPP projects analysts have found they are producing the effect of reducing both time over-run and cost over-run, which work to enhance the efficiency of investment into social infrastructure facilities.

4. Analytic Hierarchy Process (AHP) :

A multi-criteria decision making technique to combine quantitative and qualitative elements of evaluation into a decision under a hierarchical structure. AHP Suggests the overall feasibility of the project in numbers, the highest and the lowest scores are discarded. The project is evaluated as feasible, if AHP > 0.5

A group of seven or eight experts are involved in the decision making to give a weight on a grouping elements through pair-wise comparison. These elements are :

(1) Economic analysis, which takes 40 ~ 50 % of the points. (2) Policy analysis, which takes 25 ~ 35 % of the points. (3) Balanced regional development analysis, which takes 15 ~ 30 % of the points, it's a composite index and ranking for 168 regions in Korea. The criteria accounted for various statistics such as the population, economic indicators, infrastructure etc.

5. Lending Policy Supported by the Government :

a.) Land acquisition rights are granted to the concessionaires, as concessionaires may entrust the competent authority with the execution of land purchase, compensation of loss, resettlement of local residents, and other related administrative tasks.

b.) The government may provide construction subsidies to the concessionaire to preserve a proper consumer charge level.

c.) The government may take over the management and operation rights of the project, paying a certain amount of termination to the concessionaire when the project are terminated for unavoidable force majeure incidents or other reasons during construction or operation. Also the government may pay the shortfall value to the concessionaire when the real operation profit is less than the investment risks' share as one of the risk sharing aspects in the PPP.

d.) The Korea Infrastructure Credit Guarantee Fund (KICGF) which established by the PPP Act to provide credit guarantees for concessionaires who obtain bank loans from financial institutions or issue infrastructure bonds for PPP projects. The maximum guarantee limit is ₩ 100 billion KRW, with guarantee fees being determined within the range of 0.3 - 1.3 %, depending on the degree of the project risk and the company's credit standing.

e.) Various TAX benefits granted for PPP projects include the following :

- 0% tax rate to value added tax for construction services of revertible infrastructure facilities.
- Tax exemption for acquisition and registration in BTO projects.
- 14 % tax rate to income generated from the interest on infrastructure bonds with maturity of 15 years or longer.
- A separate tax rate is applied to dividends from infrastructure fund investment : 5 % to investments below ₩ 300 million KRW, 14 % to investments above ₩ 300 million KRW.

6. Minimum Revenue Guarantee :

Because of the financial crisis that hit the Republic of Korea in late 1997, however, the promotion of PPP projects fell into a slump. So the government made an across the board amendment, called the Act on Private Participation in Infrastructure, in December 1998, which called for, among other things, reinvigorating PPPs through various government policy supports, including the minimum revenue guarantee

(MRG) program. The government modified this law again in January 2005, expanding the range of facilities covered from economic infrastructure.

As of the end of 2008, about W1,390.3 billion in MRG subsidies were paid to private project companies. Though the MRG system for unsolicited projects was ended in 2006, the government still was required to pay the subsidies for the projects agreed to before the system ended. Early projects started operation but generated actual demands of only 50% of expected demand on average. As a result, large amounts of government payments have been made in MRG subsidies annually.

The new risk-sharing scheme was adopted in 2009. Through the system, the government pays the amount of the shortfall when the actual operational revenue is less than the level of risk-sharing revenue. When actual operational revenue exceeds the risk-sharing revenue, the government subsidies are redeemed on the basis of realized payments. The private sector also shares the risk, as subsidies are provided only when the actual operational revenue is greater than 50% of the risk-sharing revenue.

One of criticisms of the MRG system was that the government took on most of the project risks, but provided unreasonable high returns to the private participants. Higher MRG levels imply more risk is transferred from the private participants to the government. Obviously, the extreme case will be a fixed

payment from the government, in which case the PPP project becomes a BTL project. As the MRG level becomes higher, the returns provided to private participants should be lower. In the early era of PPP projects, the returns to BTO projects were very high despite the high MRG level provided by the government. Effectively, private participants received very attractive government guaranteed returns from their PPP investments, which exceeded the yield of the 5-year Treasury bond by 5% – 8%.

Another criticism of the MRG system was that it discourages the project company from trying to maximize revenue, the so-called moral hazard problem. The worst case of the moral hazard problem arose in projects where the main user of the facility was the project company. Port projects are typical cases. Private port operators are susceptible to an extreme moral hazard if they are eligible for MRG subsidies and need not work to increase port traffic.

The MRG system has been a financial burden to the government. The revenue risk imposed on the government has been realized and has put considerable pressure on the national budget. Various efforts are being initiated by the government to mitigate the burden from its MRG commitments. One of most direct efforts is to consult with the project company and develop plans to increase revenue. Other efforts include preparing refinancing guidelines. When the project company refinances, the principle of a 50 : 50 share of refinancing gains between the project company and the government is required in the annual PPP Basic Plan. In practice, the actual gain for the government varies depending upon the methods used for measuring the gain.

- Minimum Revenue Guarantee Agreement—Actual Subsidy Paid in 8 National Projects (%,₩ billion) :

1. Incheon International Airport Expressway: 80% guaranteed over 20 years (operated since 21 November 2000).
2. Cheonan–Nonsan Expressway: 82% guaranteed over 20 years (operated since 23 December 2002).
3. Dague–Busan Expressway: 90% guaranteed over 20 years (operated since 11 February 2006).
4. Outer Beltway 1 (Ilsan–Toegyewon): 90% guaranteed over 20 years (operated since 30 June 2006).
5. Gwangju 2nd Beltway, Section 1: 85% guaranteed over 28 years (operated since 29 November 2000).
6. Woomyunsan Tunnel: 85% guaranteed over 30 years (operated since 31 December 2003).
7. New Mokpo Outport 1-1: 90% guaranteed over 20 years (operated since 29 May 2004).
8. New Mokpo Outport 1-2: 80% guaranteed over 20 years (operated since 30 May 2004).

CHAPTER (3)

Assessing The PPP Performance in Egypt

PART ONE : RESEARCH DESIGN AND METHODOLOGY :

INTRODUCTION

The main purpose of this part is to assess the performance of the Egyptian PPP projects. This chapter includes sections describing: population and sample, scope and objective, research design, selection of case studies, research methodology, research instrument and data collection, and data analysis.

Multi-case empirical research was conducted to examine various performance aspects of the Egyptian PPPs. A survey using questionnaires was used to capture the experiences and perceptions of various factors involved directly in selected PPP projects. The advantages and disadvantages of choosing the given approach have been provided.

The focus was on a particular group of subjects, namely Egyptian PPPs contained in the Ministry of Finance, PPP Central Unit' database (2010). The study involved an in-depth examination of a limited number of PPP projects over a limited period of time on August and September 2011.

The population of the survey consisted of the Egyptian PPP projects registered under Egyptian regulations and law.

The Study included the following Activities :

- Identifying institutions engaged in PPP projects in Egypt using the MOF's PPP database.
- Accessing the identified PPP database to obtain a detailed list of names of projects and project participants, contact addresses in the form of postal and e-mail addresses, facsimile and telephone numbers.
- Designing and developing a questionnaire.
- Revising the questionnaire to incorporate promoter comments and test its suitability.
- Distributing the questionnaire using face to face visits and e-mails, along with a cover letter explaining the purpose of the study and requesting the respondents to participate in the PPP survey.
- Compiling and analyzing the questionnaire results.
- Providing feedback to the respondents based on the questionnaire results.

1. PURPOSE OF THE STUDY

The study was designed to assess the performance of the Egyptian PPP projects. It aimed to contribute in the existing body of knowledge relative to the PPP system in Egypt.

The key performance indicators examined included costs and affordability - project management - awareness and training - budget - risk transfer - policy and regulation framework.

2. SCOPE AND OBJECTIVES OF THE STUDY

(2.1) Scope :

The primary objective of this study focused on :

• Experiences and perceptions of PPP actors, and

• The Operational Egyptian PPP projects.

(2.2) Objective :

The core objective is to assess the performance of the operational Egyptian PPP projects.

3. SETTING

The survey is conducted in Egypt, the North-East country in Africa. It is divided into twenty-seven administrative provinces. Cairo is the capital of Egypt and one of the biggest cities in Africa.

Most of the projects mentioned in this research concentrated in the capital, and the others distributed in other cities such as (Beni Suef - Marsa Alam - El Alamein - Port Said - Suez - Hurghada - Alexandria - Luxor - Al Arish - Sidi Krir - New Cairo City - Borg El Arab - 6th October - Abu Rawash - Ain Sokhna). Adding also that there are some projects work nationwide through many Egyptian provinces.

4. RESEARCH DESIGN

Phillibe r (1980), describes a research design as a roadmap for conducting research. "The research design deals with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyze the results." *Yin (2003),* further "defines research design as a logical sequence that links empirical data collection to initial research questions and eventually to its conclusions."

The study examined twenty-three selected Egyptian PPP projects already in operation, within various public institutions, in their natural setting.

"The components of the case study design followed the recommendation of *Yin (2003)* and included the following :

• The study's questions.

• The propositions.

• The unit of analysis.

• The logic linking the data to the proposition.

• The criteria for interpreting the findings.

According to *Yin (2003),* there are six sources of evidence for data collection in case study protocol:

• Documentation.

• Archival records.
• Interviews.
• Direct observation.
• Participant observation.
• Physical artifacts.

Not all these sources need be used in every case study" *(Yin, 2003)*.

In this study, the last three types of sources were not relevant, since they are related to direct sociological investigation, and were not used. The researcher used the first three methods for data collection for this multi-case study.

5. SELECTION OF CASE STUDIES

(5.1) Population :

The target population for the study consisted of all the operational Egyptian PPP projects registered by the PPPCU in Cairo as of 2010. Projects were selected from the database as being the representative of those successful and unsuccessful cases in the Egyptian PPP. Valuable lessons were drawn from this pool of cases, based on experiences learned during the planning, implementation and management of the PPP projects.

(5.2) Sample Stratum :

A sample of twenty-three PPP projects was drawn from the PPPCU database. Those projects established in Egypt in the period (from 1992 - 2010) and this sample consisted of twenty-three projects which already in operation phase.

Some of the operational projects are in operation since 1996. Therefore the operational projects presented a rich source of data in terms of the various PPP aspects under investigation.

According to the MOF, there are a comprehensive PPP project databases, which is updated regularly. The database was used to select cases for investigation because the data was easily accessible, since a website exists, which was easily accessible to the researcher.

The database also contained a whole spectrum of all the registered and operational PPP projects in Egypt. PPPCU which maintains the database, is the sole regulatory agency for PPPs and therefore presented a more authentic source of information on PPP projects in Egypt, than any other source known to the researcher. Integrative cases were preferable, since the findings were more likely to reach a wider audience and immediate application.

The Operational PPP Projects Investigated included:

• Greater Cairo Wastewater Project	< Water and sewerage >;
• New Cairo Wastewater Treatment Plant	< Water and sewerage >;
• 6th October Wastewater plant	< Water and sewerage >;
• Abu Rawash Wastewater plant	< Water and sewerage >;
• Alexandria West Wastewater plant	< Water and sewerage >;
• Nile Phone	< Telecommunication >;
• Menatel	< Telecommunication >;
• Nile Valley Gas Company	< Energy - Natural Gas >;
• East Mediterranean Gas Pipeline Company (EMG)	< Energy - Natural Gas >;
• Sidi Krir Power Station	< Energy - Electricity generation >;
• Suez Gulf power plant	< Energy - Electricity generation >;
• Port Said power plant	< Energy - Electricity generation >;
• Marsa Alam Airport	< Transport - Airports >;
• El Alamein Airport	< Transport - Airports >;
• Hurghada Airport Passenger Terminal	< Transport - Airports >;
• Luxor Airport	< Transport - Airports >;
• Borg El Arab Airport	< Transport - Airports >;
• Suez Canal Container Terminal	< Transport - Seaports >;
• Sokhna Port	< Transport - Seaports >;
• Third Phase of the Underground in Cairo	< Transport - Subways >;
• Rod El Farag axis	< Roads and Highways >;
• Alexandria University Mowassat specialized Hospital	< Health >;
• Alexandria University Smouha Maternity Hospital and Blood Bank	< Health >.

(5.3) Unit of Analysis :

Selected projects formed the units of analysis from the defined population, namely Egyptian PPPs. The individual projects were the most basic units on which data was collected.

The questionnaires were sent to PPP project officers or actors who were directly or indirectly involved in those projects.

(5.4) Sampling Approach :

As the target of this study is not to make any inferences or generalizations, the researcher used the non-probability sampling to select the projects, because they were considered informative, or rather they

possessed the required characteristics. The cases selected offered in-depth information that was considered relevant to the study.

(5.5) Sample Adequacy :

This was achieved through the systematic evaluation of some aspects of the selected samples. Some of the items used in the checklist, included descriptions of the population and the sample, and the number of selected case studies was obviously small, compared to the actual number of PPP projects registered, or in the PPP production pipeline. It was necessary to study cases that had been registered with the MOF. Those projects that were waiting for approval before being implemented were excluded, because the lack of information about them.

The research data was obtained from a survey of the public and the private sector of PPP projects in Egypt that were in operation at the end of 2010. Questionnaires were sent to different authorities who were responsible for live PPP projects and to other PPP actors linked directly or indirectly to them.

Cases were chosen to express certain configurations, matters and problems, which were commonly came across. Explanations and answers were then suggested. An effort was made to show the positive and negative impacts of private sector participation. Many of the cases selected represented continuous PPP projects, which will carry on to progress over time. It was essential, in specific cases, to apply a time limit so as to have a common benchmark to compare issues relating to the PPP process.

To allow a common analysis, Six key criteria were used in Section Three in the questionnaire :

• Affordability - the budgetary constraints on the PPP implementing institutions or agencies.

• Project management competency - the competency of key players in the PPP delivery process.

• PPP awareness and training - PPP mainstreaming into various institutions and training for staff.

• Budget - the amount of capital investment in the PPP project exclusive of income streams or operational costs.

• Transfer of responsibilities - the degree to which each party is involved with the risk allocation.

• Policy and guidelines - the legal framework to catalyze and guide PPP projects.

(5.6) Justification :

The projects were selected using non-probabilistic methods. Hence, it was decided that whichever case was selected in any of the listed categories for PPP projects, was a representative of other typical PPP projects.

The suitability of case studies chosen were based on the following grounds:

• They represented a broad spectrum of sectors as mentioned before.

• They were operational and complied with the requirements of the regulatory agency in Egypt.

• They were typical and similar in crucial aspects to other projects which could have been chosen.

6. RESEARCH METHODOLOGY

(6.1) Data Collection - Approach and Strategy :

This section explains the research methods followed in the study. It includes the methods of data collection and analysis used and the basis of the analytical framework. The type of data analysis techniques to be used should be chosen before the data is collected so that the appropriate data collection techniques are utilized. Hence, in this study, data collection techniques were determined before the data collection commenced.

Structured detailed case studies were conducted in the following sectors and sub-sectors:

Water and sewerage, Telecommunication, Energy (Natural Gas), Energy (Electricity generation), Transport (Airports), Transport (Seaports), Transport (Subways), Roads and highways, and Health.

It is important to recognize that PPP principles can be applied in a wide range of projects, covering both physical and social infrastructure.

(6.2) Work Plan :

The specific activities that the researcher undertook included:

• Developing a detailed work plan for the research project, clearly indicating the schedule for instrument preparation, testing, data collection, analysis and thesis writing.

• Preparing a list of performance indicators based on research objectives.

• Developing an instrument to be used for collecting required data from the field.

• Pre-testing the instrument and making the necessary corrections.

• Developing the questionnaire and start surveying the targeted respondents from the different PPP projects.

• Finalizing the design of the instrument and collecting field data.

7. RESEARCH INSTRUMENT AND DATA COLLECTION

(7.1) Instrument Design and Construction :

The questionnaire was developed by the researcher and reviewed by the thesis supervisor. It consists of Four sections (*Shown in The APPENDIX*) :

- The First section is '*General information*' : which includes some data about the respondents:
  - Name.
  - Age.
  - Organization.
  - Position.
  - Division.
  - Working years in the target project.

- Organization type.
- Community or district size of the respondent.

➢ The Second section is about '*The Egyptian PPP'* : which includes some questions about:

- If the respondent knows about the PPP earlier or not.
- Efficiency of the private sector participation in the PPP projects.
- Private sector involvement after the Egyptian revolution.
- Private sector involvement in specific areas.
- Satisfaction level of the PPP projects according to the government perspectives in Egypt.
- Satisfaction level with the performance of BOT projects in Egypt.
- BOT projects and improving Value for Money in Egypt.
- The performance of the PPP Central unit in Egypt.

➢ The Third section is about '*The Egyptian's key performance indicators of PPP'*. and It addressed the following issues relevant to PPP project environments:

- Costs and affordability.
- Project Management.
- Awareness and training.
- Budget.
- Risk transfer.
- Policy and regulation framework.

➢ The Fourth section is about '*The Korean PPP'* : which includes two questions:

- If the respondent heard about the success stories of Korea's PPP projects.
- If the Korean PPP scheme would work in Egypt without any alterations.

The questionnaires were distributed directly by the researcher to the targeted respondents. Completed questionnaires were returned in the same visit or in another day after. Reminder phone calls were done to all the respondents to encourage participation.

The literature survey involved reviewing readily available material from various sources such as:

academic journals, textbooks, thesis, contemporary magazines, technical reports, on-line databases, and any other published material concerning PPPs in general. This approach proved an inexpensive method of gathering information, although it took time to conduct a comprehensive literature survey.

Due to the geographical spread of the targeted projects, time considerations, and cost implications, it was decided to use various options such as telephone interviews, personal (face to face) interviews.

The following general guidelines informed the development and design of the questionnaire. The researcher kept in mind that the response to the questionnaire was voluntary and designed the instrument accordingly, to maintain respondent interest. The questionnaire was designed and structured with:

• Precise and clear instructions on how to answer questions.
• Divisions into logical sections by subject.
• Initial questions that were easy to answer.
• A progression from general to specific questions.
• Little technical jargon.
• A limited number of questions to avoid respondent fatigue.
• Questions that were framed with particular issues in mind.
• The ranking of each type of question by using simplified recording, tabulation and editing.

(7.2) Functionality of Survey Instrument :

The research instrument was tested for functionality and usability by the thesis supervisor professor. Kim, Jay-Hyung (*Managing Director of PIMAC, KDI, South Korea*), and Professor. Park, Jin (*KDI School, South Korea*). Feedbacks from those expert professors about some items in the survey was noted and the necessary relevant changes for clarification and difficulty for respondents understanding was made before sending out the final instrument.

(7.3) Cover Letter :

A cover letter accompanied every questionnaire sent or transmitted to the respondents. The letter was brief and contained an adequate explanation about the proposed research project. The cover letter contained the following:

• Self-introduction.
• Assurance of confidentiality.
• A brief explanation of the importance of the study.

8. PROCEDURES FOR DATA ANALYSIS

Both qualitative and quantitative data analysis techniques were utilized to analyze the data collected. Given the limited number of cases investigated, the statistical analysis software package, *SPSS 17.0* (Statistical Package for Social Sciences), was used. Each PPP case was analyzed individually, before cross-analysis was conducted for the whole study. The researcher studied each PPP project's documentation and review response information and record as a separate case, to categorize the distinctive example within the data for that particular PPP project.

The researcher prepared detailed case study summaries for each project, and examined the data to determine whether there were any similarities, or differences within common or differing groups. Cross-case analysis then followed. The analyzed data has been presented graphically in the next part of this chapter to illustrate the various concepts based on the findings.

Research components to be completed in subsequent phases included:

- Data coding and analysis using a relevant statistical software package.
- Analysis and interpretation.
- Writing the thesis using the data analyzed.
- Sending research findings to the thesis supervisor.
- Binding the required number of hard copies, and submitting the thesis for examination.

PART TWO : PRESENTATION AND DATA ANALYSIS :

This part contains the presentation and discussion of data collected and analyzed in the study.

INTRODUCTION

This part contains the presentation of the findings from the primary data collected during the study. The statistics in the form of frequencies and mean scores, a measure of central tendency, are discussed and interpreted.

The first step in processing was to convert the raw data that was collected into meaningful, or interpretable information. This was achieved first by editing and then encoding the data. The primary purpose of editing was to eliminate errors and mistakes in the raw data, and to encode the data into appropriate categories. The questionnaire that was used in the survey was pre-coded.

Due to the numerous ways in which data can be analyzed and graphically represented, the researcher insert and export the data into SPSS software, where it could be easily analyzed and get frequencies, percentages, mean and standard deviations to describe the trends in these variables.

1. RESPONDENTS PREFERENCE SCALE

A simple frequency analysis of all the respondents was conducted for various sections and questions. '*The five-point Likert scale'* used, had sufficient options to accommodate the broad spectrum of respondents' perceptions regarding various issues pertaining to PPP projects.

The preferences of each variable in the questionnaire has relative weights (from 1 to 5) such as:

- Strongly Disagree - Disagree - Neutral - Agree - Strongly Agree
- Very Unsatisfied - Unsatisfied - Neutral - Satisfied - Very Satisfied
- Very Negative - Negative - Neither - Positive - Very Positive
- Never - Rarely - Sometimes - Often - Always

In order to calculate the length of cells, the researcher used 'Likert scale pentathlon' technique which calculate it in the term of the upper and lower values [5-1 = 4], after that the length of any cell can be found [4 / 5 = 0.8]. Thus, the total length of the cells are as follow:

♣ From 1 to 1.8 is [Never] or [Very Negative] or [Very Unsatisfied] or [Strongly Disagree].
♣ Greater than 1.8 to 2.6 is [Rarely] or [Negative] or [Unsatisfied] or [Disagree].
♣ Greater than 2.6 to 3.4 represents the [Sometimes] or [Neither] or [Neutral].
♣ Greater than 3.4 to 4.2 represents the [Often] or [Positive] or [Satisfied] or [Agree].
♣ Greater than 4.2 to 5 represents the [Always] or [Very Positive] or [Very Satisfied] or [Strongly Agree].

2. RELIABILITY ANALYSIS

The questions were grouped into different sections, in a way that could best serve the study. These sections are:

- Section 1 : General information
- Section 2 : Egyptian PPP
- Section 3 : Egyptian's Key performance indicators :
  - Costs and affordability
  - Project Management
  - Awareness and training
  - Budget
  - Risk transfer
  - Policy and regulation framework
- Section 4 : Korean PPP

The above sections and sub-sections dealt with the different dimensions of the research problems and sub-problems, and addressed the formulated research objectives. All the sections established were mutually exclusive and covered all possible answers.

By using SPSS, The researcher conducted the reliability analysis test to study the measurement scale properties and the items that compose the scales, also to provide information about the relations between

each item within the scale using the 'Pearson correlation method' and 'Alpha Cronbach model' and apply it on three categories of key performance indicators in section three questions. These categories are: Costs and Affordability, Risk Transfer, and Policy and regulation Framework. Those three were selected, because each category of it has many items (or sentences). Table 8 and table 9 will illustrate the tests as follow :

Table 8 : The inter-item correlation (using Pearson correlation) in each category

Costs and Affordability		Risk Transfer		Policy and Regulation Framework	
Item	Inter-item correlation	Item	Inter-item correlation	Item	Inter-item correlation
A1	0.508	E1	0.074	F1	0.059
A2	0.287	E2	0.037	F2	0.761
A3	0.282	E3	0.410	F3	0.575
A4	0.395	E4	0.397	F4	0.659
A5	0.148	E5	0.650	F5	0.155
		E6	0.553	F6	0.775
				F7	0.693
				F8	0.520
				F9	0.492
				F10	0.611
				F11	0.566

Table 8 shows that the inter-item correlation in 'Costs and Affordability' category is (between 0.148 and 0.508), the inter-item correlation in 'Risk Transfer' category is (between 0.037 and 0.650), and the inter-item correlation in 'Policy and Regulation Framework' category is (between 0.059 and 0.775).

That indicates that all items in each category are statistically significant and positively correlated with the other items in the same category itself.

Table 9 : The Cronbach's Alpha if an item deleted from the category

Costs and Affordability		Risk Transfer		Policy and Regulation Framework	
Item	Cronbach's Alpha if item deleted	Item	Cronbach's Alpha if item deleted	Item	Cronbach's Alpha if item deleted
A1	0.395	E1	0.658	F1	0.868
A2	0.508	E2	0.683	F2	0.809
A3	0.515	E3	0.552	F3	0.827
A4	0.432	E4	0.559	F4	0.821
A5	0.580	E5	0.436	F5	0.855
		E6	0.490	F6	0.806
				F7	0.820
				F8	0.832
				F9	0.834
				F10	0.823
				F11	0.828

Table 9 shows the Cronbach's Alpha model if any item deleted from the respective category. This model shows how each item is consistence with its category and the other items in the same category itself. As shown in the previous table, it's clear that all the items are highly consistence with each others.

In 'Costs and Affordability' category, Alpha value for 5 items is 0.546 , in 'Risk Transfer' category, Alpha value for 6 items is 0.621 , and in 'Policy and Regulation Framework' category, Alpha value for 11 items is 0.844 .

3. SAMPLE RESPONSE

The response rate in this survey was sufficient to conduct the planned statistical analysis. Moreover, as the study indicates, the response was representative for some of the operational PPP projects (23 surveyed projects within 6 sectors), and was considered adequate for this study. Table 10 depicts the sector distribution of the PPP projects surveyed.

Table 10: Number of PPP Projects surveyed by sector

	Sector	Number of PPP projects
1	Water and Sewerage	5
2	Telecommunication	2
3	Energy	5
4	Transportation	8
5	Roads and Highways	1
6	Health	2
	Total	**23**

4. DESCRIPTION OF THE PPP PROJECTS

Table 11 illustrates the surveyed operational PPP projects by sector.

Table 11 : Operational Egyptian PPP projects by sector

	Project	Sector
1	Greater Cairo Wastewater Project	Water and Sewerage
2	New Cairo Wastewater Treatment Plant	Water and Sewerage
3	6th October Wastewater plant	Water and Sewerage
4	Abu Rawash Wastewater plant	Water and Sewerage
5	Alexandria West Wastewater plant	Water and Sewerage
6	Nile Phone	Telecommunication
7	Menatel	Telecommunication
8	Nile Valley Gas Company	Energy
9	East Mediterranean Gas Pipeline Company (EMG)	Energy
10	Sidi Krir Power Station	Energy
11	Suez Gulf power plant	Energy
12	Port Said power plant	Energy
13	Marsa Alam Airport	Transportation
14	El Alamein Airport	Transportation
15	Hurghada Airport Passenger Terminal	Transportation

	Project	Sector
16	Luxor Airport	Transportation
17	Borg El Arab Airport	Transportation
18	Suez Canal Container Terminal	Transportation
19	Sokhna Port	Transportation
20	Third Phase of the Underground in Cairo	Transportation
21	Rod El Farag axis	Roads and Highways
22	Alexandria University Mowassat specialized Hospital	Health
23	Alexandria University Smouha Maternity Hospital and Blood Bank	Health

Project [1] : Greater Cairo Wastewater Project

Location : Cairo

Financial closure : 8/1992

PPI Type : Management and lease contract

PPI Subtype : Management contract

Contract award method : Competitive bidding

Number of bids : 3

Government granting contract : Federal

Primary sector : Water and sewerage

Sponsor countries : UK & Egypt

Project [2] : New Cairo Wastewater Treatment Plant

Location : New Cairo city

Financial closure : 2/2010

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Termination year : 2030

Contract award method : Competitive bidding

Number of bids : 4

Government granting contract : Federal

Primary sector : Water and sewerage

Sponsor countries : Spain & Egypt

First project concluded under the guidance of the PPPCU.

Project [3] : 6th October Wastewater plant

Location : 6th of October city

Financial closure : 12/2010

Project duration : 20 years

Contracting authority : Ministry of Housing, Utilities, and Urban development

PPI Type : Design, Build, Finance, Operate, and Maintain

Contract award method : Competitive bidding

Capacity : 150,000 m^3 / day

Primary sector : Water and sewerage

Project [4] : Abu Rawash Wastewater plant

Location : Abu Rawash

Financial closure : 2010

Project duration : 20 years

Contracting authority : Ministry of Housing, Utilities, and Urban development

PPI Type : Design, Construct, Finance, Operate, Maintain, and then Transfer

Contract award method : Competitive bidding

Number of bids : 7

Capacity : 1,200,000 m^3 / day

Primary sector : Water and sewerage

Project [5] : Alexandria West Wastewater plant

Location : Alexandria

Financial closure : 2010

Project duration : 20 years

Contracting authority : Ministry of Housing, Utilities, and Urban development

PPI Type : Design, Construct, Finance, Operate, Maintain, and then Transfer

Contract award method : Competitive bidding

Capacity : 680,000 m^3 / day

Primary sector : Water and sewerage

Project [6] : Nile Phone

Location : Overall the country

Financial closure : 6/1998

PPI Type : Greenfield project

PPI Subtype : Build, Own, and Operate (BOO)

Primary sector : Telecom

Project [7] : Menatel

Location : Overall the country

Financial closure : 10/1998

PPI Type : Greenfield project

PPI Subtype : Build, Own, and Operate (BOO)

Termination year : 2015

Primary sector : Telecom

Project [8] : Nile Valley Gas Company

Location : Beni Suef

Financial closure : 12/1998

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Termination year : 2023

Primary sector : Energy

Sub Sector : Natural Gas

Sponsor countries : UK & Italy & Egypt

Project [9] : East Mediterranean Gas Pipeline Company (EMG)

Location : Al Arish

Financial closure : 6/2007

PPI Type : Greenfield project

PPI Subtype : Build, Own, and Operate (BOO)

Government granting contract : Federal

Primary sector : Energy

Sub Sector : Natural Gas

Sponsor countries : Egypt & Israel & Thailand

Project [10] : Sidi Krir Power Station

Location : Sidi Krir

Financial closure : 7/1999

Termination year : 2019

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Energy

Sub Sector : Electricity

Sponsor countries : Italy & UK

Project [11] : Suez Gulf power plant

Location : Suez

Financial closure : 4/2001

Termination year : 2021

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Energy

Sub Sector : Electricity

Sponsor country : Malaysia

Project [12] : Port Said power plant

Location : Port Said

Financial closure : 4/2001

Termination year : 2021

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Energy

Sub Sector : Electricity

Sponsor country : Malaysia

Project [13] : Marsa Alam Airport

Location : Marsa Alam

Financial closure : 2/1998

Termination year : 2038

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Airports

Sponsor country : Kuwait

Project [14] : El Alamein Airport

Location : El Alamein

Financial closure : 8/1998

Termination year : 2048

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Airports

Sponsor country : Egypt

Project [15] : Hurghada Airport Passenger Terminal

Location : Hurghada

Financial closure : 1/2000

Termination year : 2014

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Airports

Sponsor country : Egypt

Project [16] : Luxor Airport

Location : Luxor

Financial closure : 6/2001

Termination year : 2026

PPI Type : Concession

PPI Subtype : Build, Rehabilitate, Operate, and Transfer

Primary sector : Transport

Sub Sector : Airports

Sponsor countries : France & Egypt

Project [17] : Borg El Arab Airport

Location : Borg El Arab

Financial closure : 6/2001

Termination year : 2051

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Airports

Sponsor country : Egypt

Project [18] : Suez Canal Container Terminal

Location : Port Said

Financial closure : 1/2000

Termination year : 2030

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Seaports

Sponsor countries : Denmark & China

Project [19] : Sokhna Port

Location : Ain Sokhna (North of Suez Gulf)

Financial closure : 1/2000

Termination year : 2025

PPI Type : Greenfield project

PPI Subtype : Build, Operate, and Transfer (BOT)

Primary sector : Transport

Sub Sector : Seaports

Sponsor country : UAE

Project [20] : Third Phase of the Underground in Cairo

Location : Metropolitan Cairo

Financial closure : 6/2009

Contracting authority : Ministry of Transportation

Operated by : Egyptian National Railways (ENR)

Capacity : 1,8 million passengers / day

PPI Subtype : Operation and Maintenance

Primary sector : Transport

Sub Sector : Subways

Sponsor countries : France & Egypt

Project [21] : Rod El Farag axis

Location : The Ring road around Cairo - Alexandria highway

Financial closure : 10/2010

Contracting authority : Ministry of Housing, Utilities, and Urban development

Project duration : 20 years

PPI Subtype : Construction, Operation, and Maintenance

Contract award method : Competitive bidding

Number of bids : 5

Primary sector : Roads and Highways

Project [22] : Alexandria University Mowassat specialized Hospital

Location : Alexandria

Financial closure : 10/2009

Contracting authority : Ministry of Higher Education

Operated by : Alexandria University

Project duration : 20 years

PPI Subtype : Design, Finance, Construct, Equip, Furnish, Operate, and Maintain

Contract award method : Competitive bidding

Capacity : 224 bed hospital

Primary sector : Health

Project [23] : Alexandria University Smouha Maternity Hospital and Blood Bank

Location : Alexandria

Financial closure : 10/2009

Contracting authority : Ministry of Higher Education

Operated by : Alexandria University

Project duration : 20 years

PPI Subtype : Design, Finance, Construct, Equip, Furnish, Operate, and Maintain

Contract award method : Competitive bidding

Capacity : 200 bed hospital & Blood bank

Primary sector : Health

5. SURVEY DATA

(5.1) Section one : General Information :

Using the SPSS, the researcher will introduce the frequencies and response percentages for the sample taken.

(5.1.1) Age :

Table 12 : Sample characteristics according to Age

Age	Frequency	Percent
From 21 - 30 years old	1	4.3 %
From 31 - 40 years old	3	13 %
From 41 - 50 years old	12	52.2 %
From 51 - 60 years old	7	30.4 %
Total	**23**	**100 %**

Table 12 shows that 52.2 % of the sample are between 41 and 50 years old, and 30.4 % of the sample are between 51 and 60 years old. That indicates that more than 80 % of the sample are experts and have a good experience in their career and PPP projects.

(5.1.2) Sector :

Table 13 : Sample characteristics according to sector

Sector	Frequency	Percent
Water and Sewerage	5	21.7 %
Telecommunication	2	8.7 %

Sector	Frequency	Percent
Energy	5	21.7 %
Transportation	8	34.8 %
Roads and Highways	1	4.4 %
Health	2	8.7 %
Total	**23**	**100 %**

Table 13 shows that 34.8 % of the projects in this sample are attributed to the transportation sector with three sub-sectors (5 Airports projects, 2 Seaports projects, and 1 Subway project).

Also the table shows that there are 5 projects in the water and sewerage sector and the same number in the energy sector with its two sub-sector (3 Electricity, and 2 Natural Gas).

(5.1.3) Position :

Table 14 : Sample characteristics according to Position

Position	Frequency	Percent
Consultant	4	17.4 %
Contractor	3	13 %
Operator	4	17.4 %
Financier	7	30.4 %
Manager	2	8.7 %
Other	3	13 %
Total	**23**	**100 %**

Table 14 shows that 30.4 % of the sample are working in financial position in their projects, and there are 17.4 % of the sample working as consultants, and the same percentage as operators. There are three junior positions which not mentioned in the preferences and it attributed to the (Other) with percentage 13 % of the sample.

(5.1.4) Working years experience in the PPP project :

Table 15 : Sample characteristics according to Working experience in the PPP project

Working experience	Frequency	Percent
Less than 1 year	3	13 %
From 1 - 5 years	7	30.4 %
From 6 - 10 years	7	30.4 %
From 11 - 15 years	4	17.4 %
From 16 - 20 years	2	8.7 %
Total	**23**	**100 %**

Table 15 shows that more than 60 % of the sample have been working in their projects for a period (from 1 to 10 years), and about 26 % of the sample have been working in their projects for a period (from 11 to 20 years). That indicates that a large number of the surveyed sample are having a good experience about their work in PPP projects.

(5.1.5) PPP Actors or Organization :

Table 16 : Sample characteristics according to PPP actors

PPP actor	Frequency	Percent
Private sector	20	87 %
Public sector	3	13 %
Total	**23**	**100 %**

Table 16 shows that most of the respondents in the sample are representing the private sector, and only a few number in the sample (13 %) only are representing the public sector.

(5.1.6) Community or District Size :

Table 17 : Sample characteristics according to district size

District size	Frequency	Percent
Large (more than 5 million)	2	8.7 %
Mid-size (3 - 5 million)	5	21.7 %
Small (1 - 3 million)	8	34.8 %
Very small (Less than 1 million)	8	34.8 %
Total	**23**	**100 %**

Community size is an important factor in regard to the sustainability of private sector contribution in certain zones year by year, as in the previous years, those most likely to support the PPP live in small communities with populations very few. The importance of this question is to assess the relation between the community size and the private sector involvement and the efficiency questions which will be mentioned later in section two, (5.2.2) & (5.2.3).

Table 17 shows that most of the sample respondents (about 70 %) are living in a smaller size district, and only 30 % are living in a mid-size and large districts.

(5.2) Section Two : Egyptian PPP :

(5.2.1) Knowing the PPP earlier :

Table 18 : Sample characteristics of whether they knew the PPP earlier or not

Knowing PPP	Frequency	Percent
Yes	17	73.9 %
No	6	26.1 %
Total	**23**	**100 %**

Table 18 shows that about 74 % of the respondents already knew about the PPP before they got jobs in their work. And that indicates that Public-Private Partnerships is a well-known in Egypt.

(5.2.2) Efficiency of private participation :

Table 19 : Respondents opinion about the private sector efficiency in PPP projects in Egypt

Private sector efficiency	Frequency	Percent
Strongly agree	9	39.1 %
Agree	8	34.8 %

Neutral	4	17.4 %
Disagree	2	8.7 %
Strongly disagree	-	-
Total	**23**	**100 %**

Table 19 shows that about 74 % of the respondents are agree and strongly agree about the high efficiency of the private sector in the PPP projects in Egypt. Only 8.7% of the sample admit that the private sector participation in the PPP projects is inefficient.

(5.2.3) Private sector involvement after the Egyptian revolution :

Table 20 : Respondents opinion about the private sector involvement in the PPP projects in Egypt

Private sector involvement	Frequency	Percent
Strongly agree	8	34.8 %
Agree	7	30.4 %
Neutral	4	17.4 %
Disagree	2	8.7 %
Strongly disagree	2	8.7 %
Total	**23**	**100 %**

Table 20 shows that about 65 % of the sample are agree and strongly agree about giving the private sector more opportunities after the Egyptian revolution (January 25th, 2011) to intervene more and deliver more services in partnership with the Egyptian government.

The percentages of those who are neutral, disagree, and strongly disagree indicate that the bad perception about the private sector in people's mind still non-trustful, because of the corruption and the low standard of living before the revolution. That's why the new government has to do more effort to convince the Egyptian citizens of the selected private sector.

(5.2.4) Private sector involvement in specific areas :

"Many options available to decision makers to deliver infrastructure projects, The options available flow mostly from the risk tolerance of the parties - the public owner and the private provider - and their willingness to take risks with an appropriate return"[17]. The responsibilities for designing, building, financing, operating, maintaining, and transferring could be bundled all together or some of it and transferred to private sector partners.

The next eight tables illustrate some specific areas of PPP projects in Egypt, it shows the respondents views regarding the suitability of PPP model approaches in some important sectors and areas.

[17] Smith, James. "Design-Build-Finance-Own-Operate-Transfer Approaches" Texas A&M University.

I. Public Hospitals :

Table 21 : Private sector approach for public hospital projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	6	13	17	11	10	14
No	17	10	6	12	13	9
Total	23	23	23	23	23	23

Table 21 shows that the PPP approaches chosen by the respondents surveyed for public hospital projects - in descending order - are finance, transfer, build, operate, maintain, and design.

II. Roads :

Table 22 : Private sector approach for road projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	14	15	12	9	10	9
No	9	8	11	14	13	14
Total	23	23	23	23	23	23

Table 22 shows that the PPP approaches chosen by the respondents surveyed for the road projects - in descending order - are build, design, finance, maintain, transfer, and operate.

III. Public water treatment facilities :

Table 23 : Private sector approach for public water treatment facilities projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	9	9	15	7	11	12
No	14	14	8	16	12	11
Total	23	23	23	23	23	23

Table 23 shows that the PPP approaches chosen by the respondents surveyed for public water treatment facilities projects - in descending order - are finance, transfer, maintain, build, design, and operate.

IV. Public sewage treatment facilities :

Table 24 : Private sector approach for public sewage treatment facilities projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	8	12	12	11	10	11
No	15	11	11	12	13	12
Total	23	23	23	23	23	23

Table 24 shows that the PPP approaches chosen by the respondents surveyed for public sewage treatment facilities projects - in descending order - are finance, build, transfer, operate, maintain, and design.

V. Public recreation facilities :

Table 25 : Private sector approach for public recreation facilities projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	11	9	12	9	6	6
No	12	14	11	14	17	17
Total	23	23	23	23	23	23

Table 25 shows that the PPP approaches chosen by the respondents surveyed for the public recreation facilities projects - in descending order - are finance, design, build, operate, transfer, and maintain.

VI. Public transit systems :

Table 26 : Private sector approach for public transit systems projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	11	12	9	10	8	10
No	12	11	14	13	15	13
Total	23	23	23	23	23	23

Table 26 shows that the PPP approaches chosen by the respondents surveyed for the public transit systems projects - in descending order - are build, design, operate, transfer, finance, and maintain.

VII. Electricity and delivery to homes and businesses :

Table 27 : Private sector approach for electricity and delivery to homes and business projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	6	6	10	5	11	10
No	17	17	13	18	12	13
Total	23	23	23	23	23	23

Table 27 shows that the PPP approaches chosen by the respondents surveyed for electricity and delivery to homes and business projects - in descending order - are maintain, transfer, finance, build, design, and operate.

VIII. Public schools :

Table 28 : Private sector approach for public school projects in Egypt

PPP model approach:	Design	Build	Finance	Operate	Maintain	Transfer
Yes	8	18	19	9	10	16
No	15	5	4	14	13	7
Total	23	23	23	23	23	23

Table 28 shows that the PPP approaches chosen by the respondents surveyed for public school projects - in descending order - are finance, build, transfer, maintain, operate, and design.

(5.2.5) Satisfaction level of the PPP projects according to the Egyptian government perspectives :

Table 29 : Respondents opinion about the satisfaction level of the PPP projects according to the Egyptian government perspective

Government satisfaction	Frequency	Percent
Very satisfied	-	-
Satisfied	5	21.7 %
Neutral	4	17.4 %
Unsatisfied	10	43.5 %
Very unsatisfied	4	17.4 %
Total	**23**	**100 %**

Table 29 shows that there is none of the surveyed respondents admitted that the government is very satisfied with the PPP in Egypt. While more than 60 % of the respondents said that the government is unsatisfied and very unsatisfied about the PPP in Egypt, which reflect a high percentage of dissatisfaction, indicating the bad performance of the PPP in Egypt that doesn't work properly.

In this question, the researcher asked the respondents about the reasons of satisfaction level, and only (13) of the dissatisfied respondents respond to this question, and stated the following reasons :

1. Policies and legal framework is not fixed enough.
2. The government wants to promote a major PPP program, but the private sector prefers to work alone.
3. Still there is a shortage in services and people are not happy yet.
4. The public perception of the PPP as privatization.
5. The project ownership issue between public sector and private sector (especially foreigners).
6. Project screening is missing.
7. A lot of foreign intervention and unemployment.
8. Informality within the Egyptian economy.
9. The bad Coordination with Relevant Stakeholders.
10. Resistance to change company structures and systems.
11. Shortage in PPPCU' experiences.
12. Creation of financing fund.
13. High political risks (especially after the revolution).

(5.2.6) Satisfaction level with the performance of BOT projects in Egypt :

Table 30 : Respondents opinion about the satisfaction level with the performance of BOT projects in Egypt

Performance of BOT projects	Frequency	Percent
Very satisfied	-	-
Satisfied	4	17.4 %
Neutral	5	21.7 %

Unsatisfied	9	39.1 %
Very unsatisfied	5	21.7 %
Total	**23**	**100 %**

As mentioned before in the Chapter two, the BOT model are the most famous between all the PPP models in Egypt. Table 30 shows that there is none of the respondents surveyed very satisfied with BOT projects in Egypt. While more than 60 % of the respondents are unsatisfied and very unsatisfied about the BOT projects in Egypt, which reflect a high percentage of dissatisfaction, indicating that the performance of the BOT projects in Egypt is not working properly.

(5.2.7) BOT projects and improving the 'Value For Money' in Egypt :

Table 31 : Respondents opinion about Value for money due to BOT projects in Egypt

Value For Money	Frequency	Percent
Very positive	1	4.3 %
Positive	5	21.7 %
Neither	3	13 %
Negative	8	34.8 %
Very negative	6	26.1 %
Total	**23**	**100 %**

Table 31 shows that more than 60 % of the respondents surveyed admitted that the VFM due to BOT projects in Egypt is negative and very negative. While only more than 25 % of the respondents admitted that the VFM due to BOT projects in Egypt is positive and very positive. That indicates the bad performance of BOT projects in Egypt doesn't improve the VFM in the country at all.

(5.2.8) Satisfaction level with the performance of PPP Central Unit (PPPCU) in Egypt :

Table 32 : Respondents opinion about the satisfaction level with the performance of PPPCU in Egypt

Performance of PPPCU	Frequency	Percent
Very satisfied	5	21.7 %
Satisfied	7	30.4 %
Neutral	6	26.1 %
Unsatisfied	4	17.4 %
Very unsatisfied	1	4.3 %
Total	**23**	**100 %**

Table 32 shows that more than 52 % of the respondents surveyed are very satisfied and satisfied with the PPPCU performance. While more than 20 % of the respondents are unsatisfied and very unsatisfied about that performance, which indicates that although the PPPCU is still new, established in 2006, yet it's working properly and there is quiet satisfaction about its performance.

(5.3) Section Three : Egyptian's key performance indicators :

In the following analysis, the researcher uses SPSS to determine the characteristics of the six categories mentioned in the survey. By using '*the five-points Likert scale'* to measure the opinion of the respondents surveyed about the key performance indicators in the Egyptian PPP.

The following tables from 33 to 39 indicate the perceptions of respondents to the key performance indicators in terms of percentage responses to a scale of 1 to 5, and the mean ranging between 1.00 and 5.00 to enable interpretation of the percentages relative to each point on the response scale.

(A) Costs and Affordability :

Table 33 : Costs and affordability items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Always	Often	Sometimes	Rarely	Never		
A1	PPP procurement delivers overall cost savings in comparison to conventional procurement.	*Freq.*	7	11	4	1	-	4.04	0.825
		%	30.4%	47.8%	17.4%	4.3%	-		
A2	Cost savings can be assessed with reference to factual data, rather than through comparisons with the assumptions used in the Public Sector Comparators.	*Freq.*	1	7	12	3	-	3.26	0.752
		%	4.3%	30.4%	52.2%	13%	-		
A3	The various PPP implementing agencies are able to afford project transaction costs.	*Freq.*	11	4	4	4	-	3.96	1.186
		%	47.8%	17.4%	17.4%	17.4%	-		
A4	PPP transaction costs are subsidized in Egypt.	*Freq.*	3	9	2	8	1	3.22	1.204
		%	13%	39.1%	8.7%	34.8%	4.3%		
A5	High transaction costs are a major constraint for faster deal flow.	*Freq.*	2	12	5	3	1	3.48	0.994
		%	8.7%	52.2%	21.7%	13%	4.3%		

Table 33 shows that the characteristics of the 5 statements, as follow :

A1 : The mean is 4.04 , which is (> 3.40 and < 4.20) , thus it's 'OFTEN' PPP procurement delivers overall cost savings in comparison to conventional procurement.

A2 : The mean is 3.26 , which is (> 2.60 and < 3.40) , thus it's 'SOMETIMES' Cost savings can be assessed with reference to factual data, rather than through comparisons with the assumptions used in the Public Sector Comparators.

A3 : The mean is 3.96 , which is (> 3.40 and < 4.20) , thus it's 'OFTEN' The various PPP implementing agencies are able to afford project transaction costs.

A4 : The mean is 3.22 , which is (> 2.60 and < 3.40) , thus it's 'SOMETIMES' PPP transaction costs are subsidized in Egypt.

A5 : The mean is 3.48 , which is (> 3.40 and < 4.20) , thus it's 'OFTEN' High transaction costs are a major constraint for faster deal flow.

In conclusion, the overall mean for Costs and Affordability indicator is 3.59 , which is (> 3.40 and < 4.20) , thus all the five statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'OFTEN'.

B) Project Management :

Table 34 : Project management items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
B1	The slow deal flow for PPP projects in Egypt is due to capacity constraints in provincial governments and municipalities.	*Freq.*	7	11	2	3	-	3.96	0.976
		%	30.4%	47.8%	8.7%	13%	-		
B2	Lack of or an inadequate project management approach slows down the implementation of PPP projects.	*Freq.*	7	12	4	-	-	4.13	0.694
		%	30.4%	52.2%	17.4%	-	-		

Table 34 shows that the characteristics of the 2 statements, as follow :

B1 : The mean is 3.96 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' The slow deal flow for PPP projects in Egypt is due to capacity constraints in provincial governments and municipalities.

B2 : The mean is 4.13 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' Lack of or an inadequate project management approach slows down the implementation of PPP projects.

In conclusion, the overall mean for the project management indicator is 4.05 , which is (> 3.40 and < 4.20) , thus both of the two statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'AGREE'.

(C) Awareness and Training :

Table 35 : Awareness and training items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
C1	Lack of PPP training and awareness hamper PPP growth and development.	*Freq.*	6	11	2	4	-	3.83	1.029
		%	26.1%	47.8%	8.7%	17.4%	-		
C2	The level of PPP awareness and training is adequate in Egypt.	*Freq.*	1	3	3	11	5	2.30	1.105
		%	4.3%	13%	13%	47.8%	21.7%		

Table 35 shows that the characteristics of the 2 statements, as follow :

C1 : The mean is 3.83 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' Lack of PPP training and awareness hamper PPP growth and development.

C2 : The mean is 2.30 , which is (> 1.80 and < 2.60) , thus it's 'DISAGREE' The level of PPP awareness and training is adequate in Egypt.

In conclusion, the overall mean for awareness and training indicator is 3.07 , which is (> 2.60 and < 3.40) , thus both of the two statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'NEUTRAL'.

(D) Budget :

Table 36 : Budget items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
D1	The use of PPPs delivers benefits due to budget restrictions in the public sector capital budgets.	*Freq.*	12	8	3	-	-	4.39	0.722
		%	52.2%	34.8%	13%	-	-		
D2	PPP procurement brings forward investment and / or ensures that optimal maintenance strategies are followed.	*Freq.*	13	9	1	-	-	4.52	0.593
		%	56.5%	39.1%	4.3%	-	-		

Table 36 shows that the characteristics of the 2 statements, as follow :

D1 : The mean is 4.39 , which is (> 4.20 and < 5.00) , thus it's 'STRONGLY AGREE' The use of PPPs delivers benefits due to budget restrictions in the public sector capital budgets.

D2 : The mean is 4.52 , which is (> 4.20 and < 5.00) , thus it's 'STRONGLY AGREE' PPP procurement brings forward investment and / or ensures that optimal maintenance strategies are followed.

In conclusion, the overall mean for the budget indicator is 4.46 , which is (> 4.20 and < 5.00) , thus both of the two statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'STRONGLY AGREE'.

(E) Risk Transfer :

Table 37 : Risk transfer items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
E1	Successful PPPs require existence of an adequate risk management system for appropriate transfer of risks to the party best suited to manage it at least cost.	*Freq.*	13	8	2	-	-	4.48	0.665
		%	56.5%	34.8%	8.7%	-	-		
E2	PPP risk management training and awareness is necessary to ensure that project risks are adequately identified and mitigation strategies are followed.	*Freq.*	13	5	5	-	-	4.35	0.832
		%	56.5%	21.7%	21.7%	-	-		
E3	Risk is transferred in practice.	*Freq.*	11	6	4	2	-	4.13	1.014
		%	47.8%	26.1%	17.4%	8.7%	-		
E4	It is always clear where risk lies in a PPP project.	*Freq.*	2	13	5	2	1	3.57	0.945
		%	8.7%	56.5%	21.7%	8.7%	4.3%		
E5	There is evidence of contractors or customers seeking to shift risk onto the other party after signing the contract.	*Freq.*	2	11	4	6	-	3.39	0.988
		%	8.7%	47.8%	17.4%	26.1%	-		
E6	Allocate and sharing risks between the public and private sector is fair and suitable.	*Freq.*	1	9	6	7	-	3.17	0.937
		%	4.3%	39.1%	26.1%	30.4%	-		

Table 37 shows that the characteristics of the 6 statements, as follows :

E1 : The mean is 4.48 , which is (> 4.20 and < 5.00) , thus it's 'STRONGLY AGREE' Successful PPPs require existence of an adequate risk management system for appropriate transfer of risks to the party best suited to manage it at least cost.

E2 : The mean is 4.35 , which is (> 4.20 and < 5.00) , thus it's 'STRONGLY AGREE' PPP risk management training and awareness is necessary to ensure that project risks are adequately identified and mitigation strategies are followed.

E3 : The mean is 4.13 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' Risk is transferred in practice.

E4 : The mean is 3.57 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' It is always clear where risk lies in a PPP project.

E5 : The mean is 3.39 , which is (> 2.60 and < 3.40) , thus it's 'NEUTRAL' There is evidence of contractors or customers seeking to shift risk onto the other party after signing the contract.

E6 : The mean is 3.17 , which is (> 2.60 and < 3.40) , thus it's 'NEUTRAL' Allocate and sharing risks between the public and private sector is fair and suitable.

In conclusion, the overall mean for the risk transfer indicator is 3.85 , which is (> 3.40 and < 4.20) , thus all the six statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'AGREE'.

E7 . PPP projects risks :

Table 38 : Respondents view about the risks faced PPP projects in Egypt

Risks	Responses				Total
	Yes		No		
Technical risk	12	(52.2 %)	11	(47.8 %)	23
Construction risk	11	(47.8 %)	12	(52.2 %)	23
Operating risk	8	(34.8 %)	15	(65.2 %)	23
Revenue risk	8	(34.8 %)	15	(65.2 %)	23
Regulatory / Political risk	12	(52.2 %)	11	(47.8 %)	23
Environmental risk	6	(26.1 %)	17	(73.9 %)	23
Financial risk	14	(60.9 %)	9	(39.1 %)	23
Force majeure risk	2	(8.7 %)	21	(91.3 %)	23

Table 38 shows the opinion of the respondents surveyed about the different risks[18] which faced PPP projects in Egypt. Respondents declared that the risks faced PPP projects in Egypt - in descending order - as follow:

[18] Grimsey, Darrin, and Mervyn K. Lewis. "Evaluating the risks of public private partnerships for infrastructure projects." International Journal of Project Management 20, no. 107-118 (2002).

1. Financial risk (60.9 %): Occurs due to inadequate hedging of revenue streams and financing costs.
2. Regulatory / Political risk (52.2 %): Occurs due to legal changes and unsupportive government policies. This type of risk shown up clearly in the current period, because of the revolution and government transition.
3. Technical risk (52.2 %): Occurs due to engineering and design failure.
4. Construction risk (47.8 %): Occurs due to faulty construction techniques, cost escalation and construction delays.
5. Operating risk (34.8 %): Occurs due to higher operating costs and maintenance costs.
6. Revenue risk (34.8 %): Occurs due to traffic shortfall or failure to extract resources, also deficiency due to volatility of prices and demand for products and services.
7. Environmental risk (26.1 %): Occurs due to adverse environmental impacts and hazards.
8. Force majeure risk (8.7 %): Occurs due to war and other calamities and acts of God.

In Egypt, the principles of risk allocation are set out in the PPP Law and defined by the PPPCU to be applied to all projects known as the (New PPP Model), which is based on a standard PPP practice in other countries (UK). However, there is no standard contract by sector for the Egyptian PPP.

(F) Policy and Regulation Framework :

Table 39 : Policy and regulation framework items' characteristics according to the respondent views

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
F1	Existence of an effective and sustainable legal and regulatory framework is essential for promoting and fostering successful PPPs.	*Freq.*	13	5	5	-	-	4.35	0.832
		%	56.5%	21.7%	21.7%	-	-		
F2	A credible legal and regulatory framework exists in Egypt for the implementation of PPP projects.	*Freq.*	12	5	3	3	-	4.13	1.100
		%	52.2%	21.7%	13%	13%	-		
F3	The government is committed to private sector participation in infrastructure development and service delivery through PPPs.	*Freq.*	11	3	5	4	-	3.91	1.203
		%	47.8%	13%	21.7%	17.4%	-		
F4	The existing policy framework environment supports open market access and fair PPP competition.	*Freq.*	1	13	6	2	1	3.48	0.898
		%	4.3%	56.5%	26.1%	8.7%	4.3%		
F5	PPPs protect public interest and maximize value added for projects.	*Freq.*	7	12	3	1	-	4.09	0.793
		%	30.4%	52.2%	13%	4.3%	-		
F6	The existing investment climate in Egypt promotes a viable and sustainable PPP project system.	*Freq.*	4	11	4	1	3	3.52	1.238
		%	17.4%	47.8%	17.4%	4.3%	13%		
F7	The current PPP guidelines in Egypt provide adequate opportunity to assess the most effective type of PPP for a given	*Freq.*	3	12	6	2	-	3.70	0.822
		%	13%	52.2%	26.1%	8.7%	-		

Items			Responses					Mean	St. dev.
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
	project.								
F8	The policy environment favors PPP growth in Egypt.	*Freq.*	1	8	10	4	-	3.26	0.810
		%	4.3%	34.8%	43.5%	17.4%	-		
F9	Policies relative to PPPs are consistent with other government policies i.e. land use, social policies etc.	*Freq.*	3	6	8	5	1	3.22	1.085
		%	13%	26.1%	34.8%	21.7%	4.3%		
F10	There is sufficient legislative authority for entering into PPP agreements.	*Freq.*	9	8	4	1	1	4.00	1.087
		%	39.1%	34.8%	17.4%	4.3%	4.3%		
F11	Existing PPP regulations and guidelines are efficient and effective mechanism for PPP transactions and auditing in Egypt.	*Freq.*	4	4	10	4	1	3.26	1.096
		%	17.4%	17.4%	43.5%	17.4%	4.3%		

Table 39 shows that the characteristics of the 11 statements, as follow :

F1 : The mean is 4.35 , which is (> 4.20 and < 5.00) , thus it's 'STRONGLY AGREE' Existence of an effective and sustainable legal and regulatory framework is essential for promoting and fostering successful PPPs.

F2 : The mean is 4.13 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' A credible legal and regulatory framework exists in Egypt for the implementation of PPP projects.

F3 : The mean is 3.91 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' The government is committed to private sector participation in infrastructure development and service delivery through PPPs.

F4 : The mean is 3.48 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' The existing policy framework environment supports open market access and fair PPP competition.

F5 : The mean is 4.09 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' PPPs protect public interest and maximize value added for projects.

F6 : The mean is 3.52 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' The existing investment climate in Egypt promotes a viable and sustainable PPP project system.

F7 : The mean is 3.70 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' The current PPP guidelines in Egypt provide adequate opportunity to assess the most effective type of PPP for a given project.

F8 : The mean is 3.26 , which is (> 2.60 and < 3.40) , thus it's 'NEUTRAL' The policy environment favors PPP growth in Egypt.

F9 : The mean is 3.22 , which is (> 2.60 and < 3.40) , thus it's 'NEUTRAL' Policies relative to PPPs are consistent with other government policies i.e. land use, social policies etc.

F10 : The mean is 4.00 , which is (> 3.40 and < 4.20) , thus it's 'AGREE' There is sufficient legislative authority for entering into PPP agreements.

F11 : The mean is 3.26 , which is (> 2.60 and < 3.40) , thus it's 'NEUTRAL' Existing PPP regulations and guidelines are efficient and effective mechanism for PPP transactions and auditing in Egypt.

In conclusion, the overall mean for the policy and regulation framework indicator is 3.72 , which is (> 3.40 and < 4.20) , thus all the eleven statements included in the category indicate that the respondents can be deemed to be of the opinion that the contentions expressed in the statements is for the choice 'AGREE'.

(5.4) Section 4 : Korean PPP :

(5.4.1) Heard about the success stories of Korea's PPP projects :

Table 40 : Sample characteristics for whether they heard about the success stories of Korea's PPP projects

Heard about the Korean PPP Success Stories	Frequency	Percent
Yes	9	39.1 %
No	14	60.9 %
Total	**23**	**100 %**

Table 40 shows that more than 60 % of the respondents surveyed didn't hear anything before about the Korean PPP success stories, and about 39 % of the respondents heard about the Korean success.

(5.4.2) If the Korean PPP scheme would work in Egypt without any alterations :

Table 41 : Sample characteristics for whether the Korean PPP scheme would work in Egypt without any alterations

The Korean PPP scheme would work in Egypt	Frequency	Percent
Yes	1	4.3 %
No	8	34.8 %
N.A *	14	60.9 %
Total	**23**	**100 %**

***** Not Applicable question, as it's related with the previous question (5.4.1) .

Table 41 shows that the 9 respondents who heard before about the success stories of Korea's PPP projects, only one respondent assumed that the Korean PPP scheme would work in Egypt without any alteration, while 8 respondents refused that assumption.

(5.5) Crosstab Analysis (Two-way variables) :

In this part, the researcher introduces more analysis from the collected data using SPSS. The Crosstab procedure forms two-way and multi-way tables which present a variety of tests, relations, and measures. Analysis as follows :

[1] The relation between 'Whether the respondent heard about the success stories of Korea's PPP projects', and 'The respondent age' :

Table 42 : Crosstab of variables 'Age' & 'Whether the respondent heard about the success stories of Korea's PPP projects'

Age	Heard about Korean PPP		Total
	Yes	No	
From 21 - 30 years old	-	4.3%	**4.3%**
From 31 - 40 years old	-	13%	**13%**
From 41 - 50 years old	13%	39.1%	**52.2%**
From 51 - 60 years old	26.1%	4.3%	**30.4%**
Total	**39.1%**	**60.9%**	**100%**

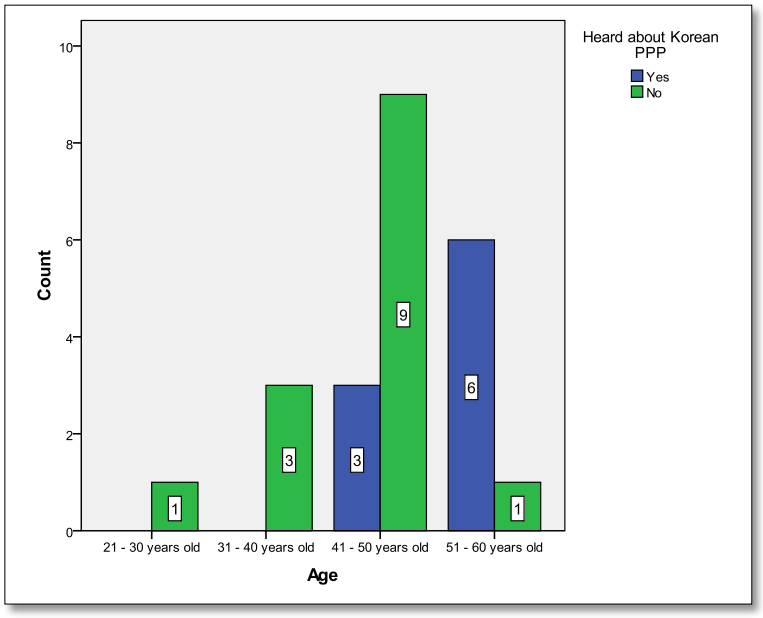


Figure 14 :

The relationship between 'Whether the respondent heard about the success stories of Korea's PPP projects', and 'The respondent age'

Table 42 and figure 14 show the positive correlation between the two variables, as only the old respondents (from 41 - 60 years old) heard about the success stories of the Korean PPP. Here the researcher is proposing some reasons about why the younger generations in Egypt have short of knowledge about the Korean PPP, part of the reasons goes to the limited education system in high schools and universities in Egypt which cause lack of general knowledge about the far east countries, especially South Korea and its success stories in many fields and sectors such as PPPs.

[2] The relation between 'The PPP sectors' and 'The efficiency of the private participation in the PPP' :

Table 43 : Crosstab of variables 'The PPP sectors' & 'The efficiency of the private participation in the PPP projects'

Sector	Efficiency of the private participation					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Water and sewerage	4.3%	8.7%	8.7%	-	-	**21.7%**
Telecommunication	4.3%	-	4.3%	-	-	**8.7%**
Energy - Natural gas	8.7%	-	-	-	-	**8.7%**
Energy - Electricity	4.3%	-	-	8.7%	-	**13%**
Transport - Airports	8.7%	13%	-	-	-	**21.7%**
Transport - Seaports	4.3%	4.3%	-	-	-	**8.7%**
Transport - Subways	4.3%	-	-	-	-	**4.3%**
Roads and highways	-	-	4.3%	-	-	**4.3%**
Health	-	8.7%	-	-	-	**8.7%**
Total	**39.1%**	**34.8%**	**17.4%**	**8.7%**	-	**100%**

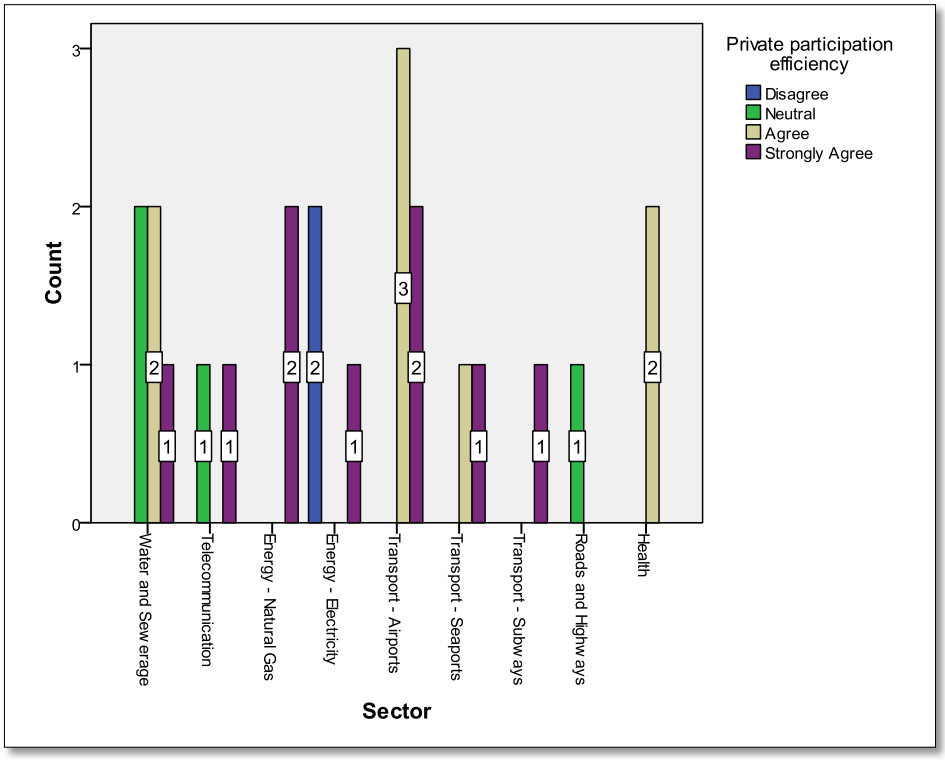


Figure 15 :

The relationship between 'The PPP sectors', and 'The efficiency of the private participation in the PPP projects'

Table 43 and figure 15 show that there are some sectors such as water and sewerage, telecom, and roads are neutral in their opinions in regard to the private sector efficiency in Egypt. While there are two projects in electricity sector which disagree about the efficiency of private sector participation in Egypt.

[3] The relation between 'The PPP sectors' and 'The involvement of the private sector after the Egyptian revolution' :\

Table 44 : Crosstab of variables 'The PPP sectors' & 'The involvement of the private sector after the Egyptian revolution'

Sector	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Water and sewerage	8.7%	-	8.7%	4.3%	-	**21.7%**
Telecommunication	4.3%	-	-	-	4.3%	**8.7%**
Energy - Natural gas	4.3%	4.3%	-	-	-	**8.7%**
Energy - Electricity	4.3%	4.3%	-	-	4.3%	**13%**
Transport - Airports	8.7%	8.7%	-	4.3%	-	**21.7%**
Transport - Seaports	-	8.7%	-	-	-	**8.7%**
Transport - Subways	4.3%	-	-	-	-	**4.3%**
Roads and highways	-	-	4.3%	-	-	**4.3%**
Health	-	4.3%	4.3%	-	-	**8.7%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

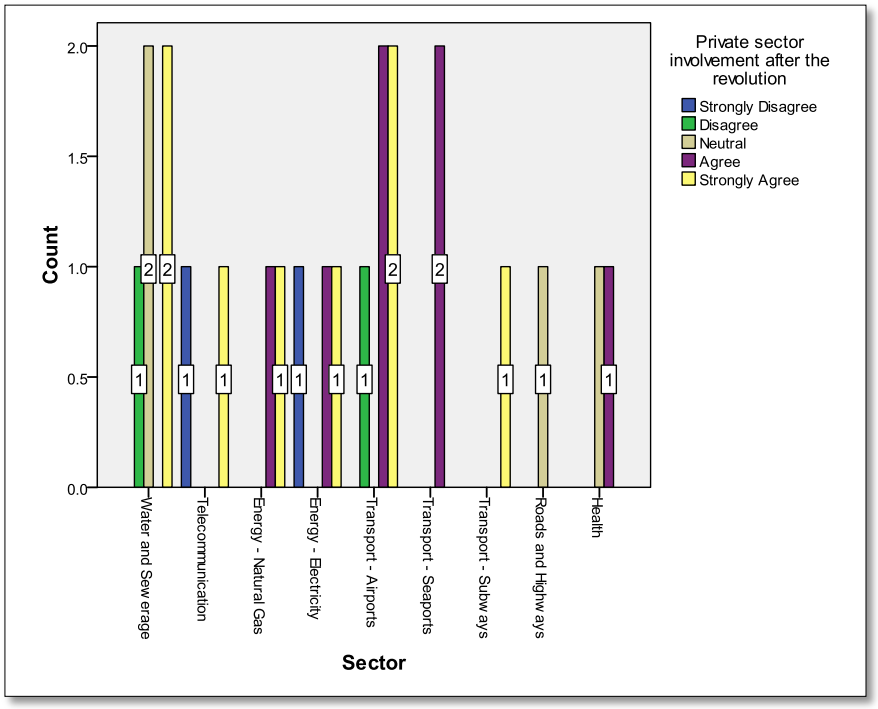


Figure 16 :

The relationship between 'The PPP sectors', and ' The involvement of the private sector after the Egyptian revolution'

Table 44 and figure 16 show that there are some sectors such as water and sewerage, health, and roads are neutral according to the private sector involvement after the revolution. While there are four projects in the sectors (water and sewerage, telecom, electricity, and airports) which disagree and strongly disagree about the involvement of private sector after the Egyptian revolution.

[4] The relation between 'The PPP sectors' and 'The performance of the Egyptian PPP Central Unit' :

Table 45 : Crosstab of variables 'The PPP sectors' & 'The performance of the Egyptian PPP Central Unit'

Sector	Performance of the PPP Central Unit in Egypt					Total
	Very satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied	
Water and sewerage	4.3%	8.7%	4.3%	4.3%	-	**21.7%**
Telecommunication	4.3%	4.3%	-	-	-	**8.7%**
Energy - Natural gas	4.3%	-	4.3%	-	-	**8.7%**
Energy - Electricity	4.3%	4.3%	-	4.3%	-	**13%**
Transport - Airports	-	4.3%	13%	4.3%	-	**21.7%**
Transport - Seaports	-	-	-	4.3%	4.3%	**8.7%**
Transport - Subways	4.3%	-	-	-	-	**4.3%**
Roads and highways	-	4.3%	-	-	-	**4.3%**
Health	-	4.3%	4.3%	-	-	**8.7%**
Total	**21.7%**	**30.4%**	**26.1%**	**17.4%**	**4.3%**	**100%**

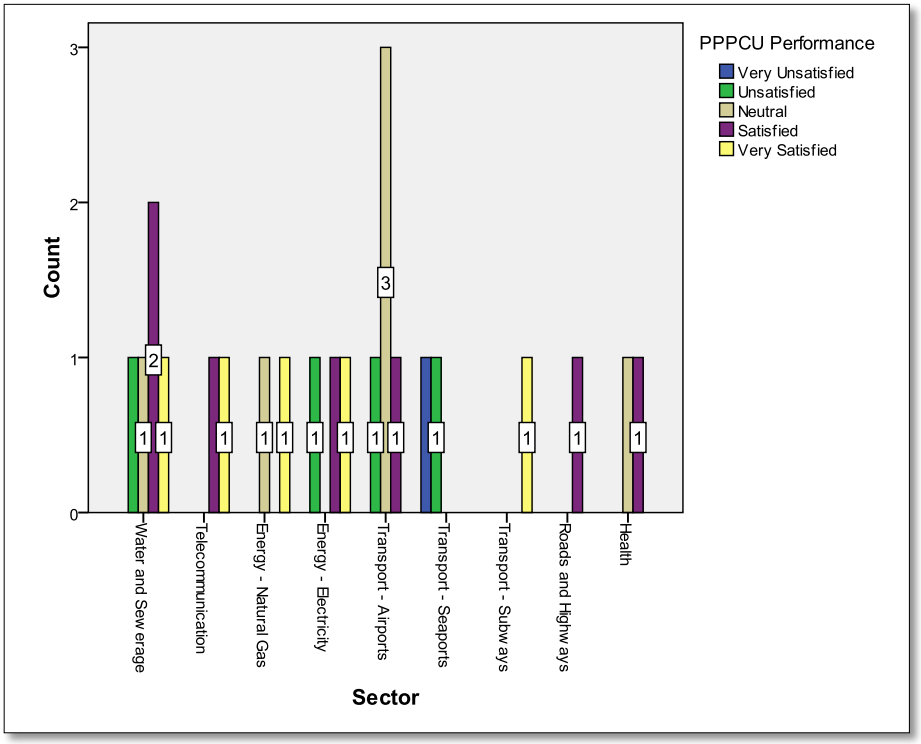


Figure 17 :

The relationship between 'The PPP sectors', and 'The performance of the Egyptian PPP Central Unit'

Table 45 and figure 17 show that there are some sectors unsatisfied with the PPPCU performance, and these sectors are water and sewerage, electricity, airports, and two projects in the seaport sector. The researcher recommends to PPPCU policies and procedures to be revised for those sectors.

[5] The relation between 'The working years experience in that PPP project' and 'Whether the respondent knew earlier about the PPP or not' :

Table 46 : Crosstab of variables 'Working years experience in that PPP project' & 'Whether the respondent knew earlier about the PPP or not'

Working experience	Knew about the PPP earlier		Total
	Yes	No	
Less than 1 year	8.7%	4.3%	**13%**
From 1 - 5 years	13%	17.4%	**30.4%**
From 6 - 10 years	26.1%	4.3%	**30.4%**
From 11 - 15 years	17.4%	-	**17.4%**
From 16 - 20 years	8.7%	-	**8.7%**
Total	**73.9%**	**26.1%**	**100%**

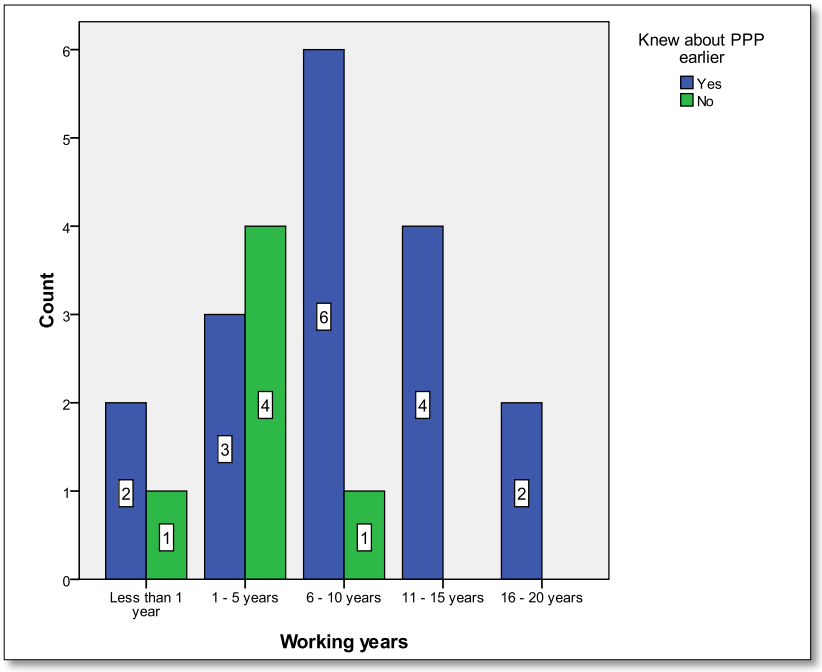


Figure 18 :

The relationship between 'The working years experience in that PPP project', and 'Whether the respondent knew earlier about PPP or not'

Table 46 and figure 18 show that all the respondents whom have many years of experience in PPP work - especially from 6 to 10 years - already knew about the PPP before attaching to their career in PPP projects. While about 17.4 % of the respondents whom have an experience (from 1 - 5 years) in their work, didn't know about the PPP earlier.

[6] The relation between 'The working years experience in that PPP project' and 'The efficiency of the private participation in the PPP projects' :

Table 47 : Crosstab of variables 'The working years experience in that PPP project' & 'The efficiency of the private participation in the PPP projects'

Working experience	Efficiency of private participation					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Less than 1 year	-	8.7%	4.3%	-	-	**13%**
From 1 - 5 years	8.7%	17.4%	4.3%	-	-	**30.4%**
From 6 - 10 years	8.7%	8.7%	4.3%	8.7%	-	**30.4%**
From 11 - 15 years	17.4%	-	-	-	-	**17.4%**
From 16 - 20 years	4.3%	-	4.3%	-	-	**8.7%**
Total	**39.1%**	**34.8%**	**17.4%**	**8.7%**	-	**100%**

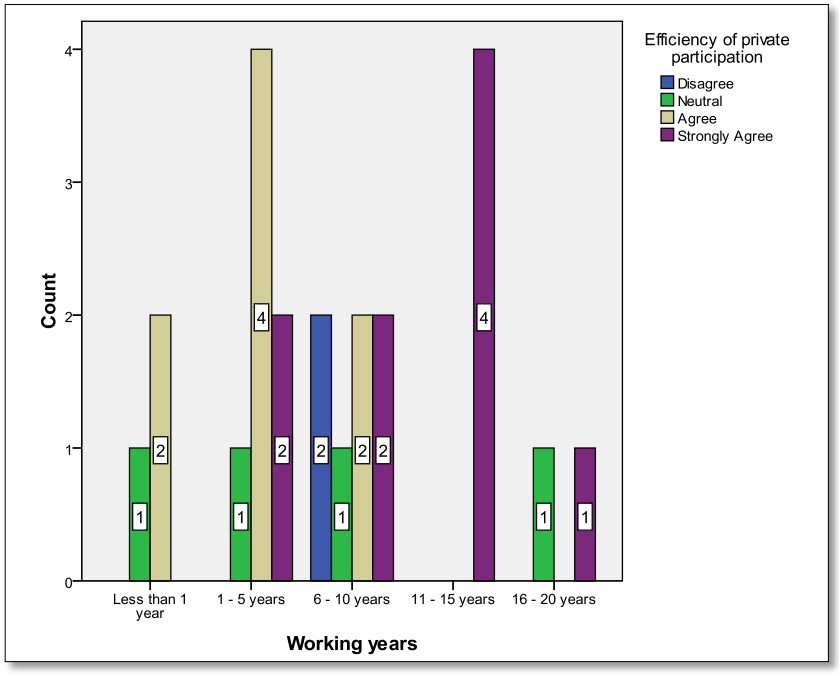


Figure 19 :

The relationship between 'The working years experience in that PPP project', and 'The efficiency of the private participation in the PPP projects'

Table 47 and figure 19 show that all the expert respondents tend to agree and strongly agree that the private sector participation is efficient in Egypt. Which indicates that many years of experience in PPPs shall reflect on the respondent views in regard to the private sector participation. As the more experience in PPPs, the more knowledge about private sector benefits and efficiency, then the more believe that PPPs will be efficient with the private sector participation.

[7] The relation between 'The working years experience in that PPP project' and 'The involvement of the private sector after the Egyptian revolution' :

Table 48 : Crosstab of variables 'The working years experience in that PPP project' & 'The involvement of the private sector after the Egyptian revolution'

Working experience	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Less than 1 year	-	-	13%	-	-	**13%**
From 1 - 5 years	13%	8.7%	-	8.7%	-	**30.4%**
From 6 - 10 years	4.3%	17.4%	-	-	8.7%	**30.4%**
From 11 - 15 years	13%	4.3%	-	-	-	**17.4%**
From 16 - 20 years	4.3%	-	4.3%	-	-	**8.7%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

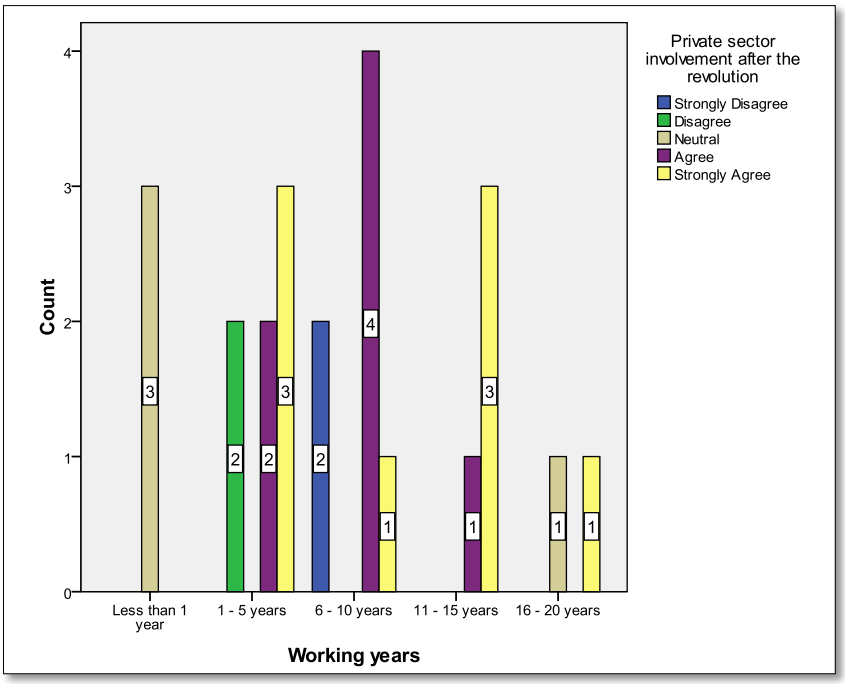


Figure 20 :

The relationship between 'The working years experience in that PPP project', and 'The involvement of the private sector after the Egyptian revolution'

Table 48 and figure 20 show that the respondents whom have a medium experience in their PPP work (from 6 to 15 years) have the tendency to agree and strongly agree about the private sector involvement after the Egypt revolution.

[8] The relation between 'The PPP actors' and 'The efficiency of the private participation in the PPP projects' :

Table 49 : Crosstab of variables 'The PPP actors' & 'The efficiency of the private participation in the PPP projects'

PPP actors	Efficiency of private participation					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Private sector	34.8%	30.4%	13%	8.7%	-	**87%**
Public sector	4.3%	4.3%	4.3%	-	-	**13%**
Total	**39.1%**	**34.8%**	**17.4%**	**8.7%**	-	**100%**

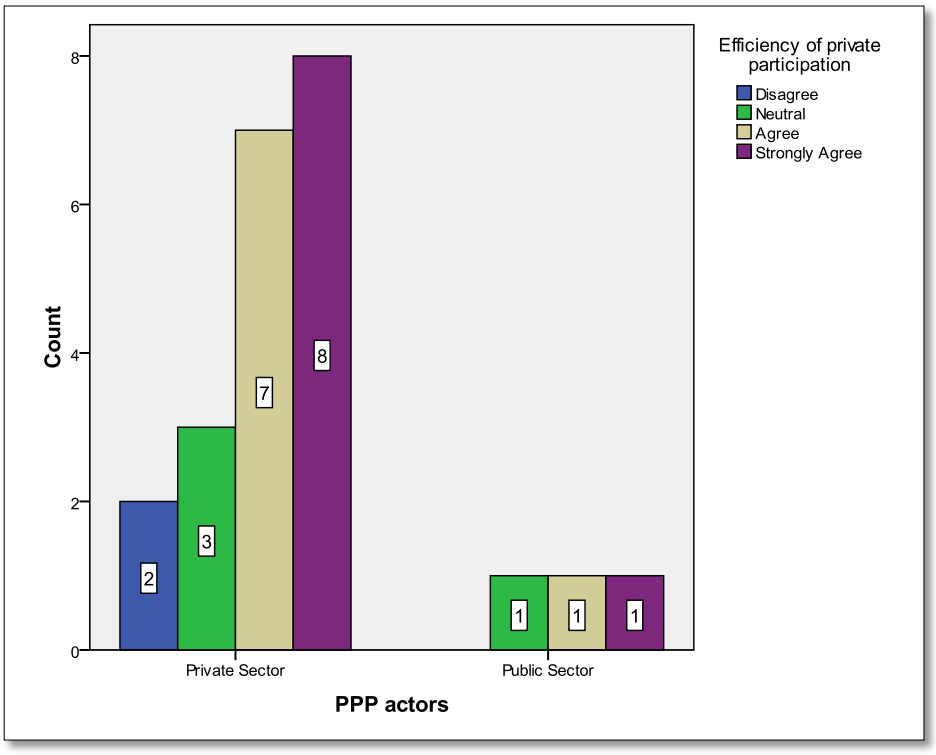


Figure 21 :

The relationship between 'The PPP actors', and 'The efficiency of the private participation in the PPP projects'

Table 49 and figure 21 show that the respondents from the private sector agree and strongly agree about the efficiency of private participation. While the public sector's respondents are having different opinions about the participation efficiency of the private sector in Egypt.

[9] The relation between 'The PPP actors' and 'The involvement of the private sector after the Egyptian revolution' :

Table 50 : Crosstab of variables 'The PPP actors' & 'The involvement of the private sector after the Egyptian revolution'

PPP actors	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Private sector	26.1%	30.4%	13%	8.7%	8.7%	**87%**
Public sector	8.7%	-	4.3%	-	-	**13%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

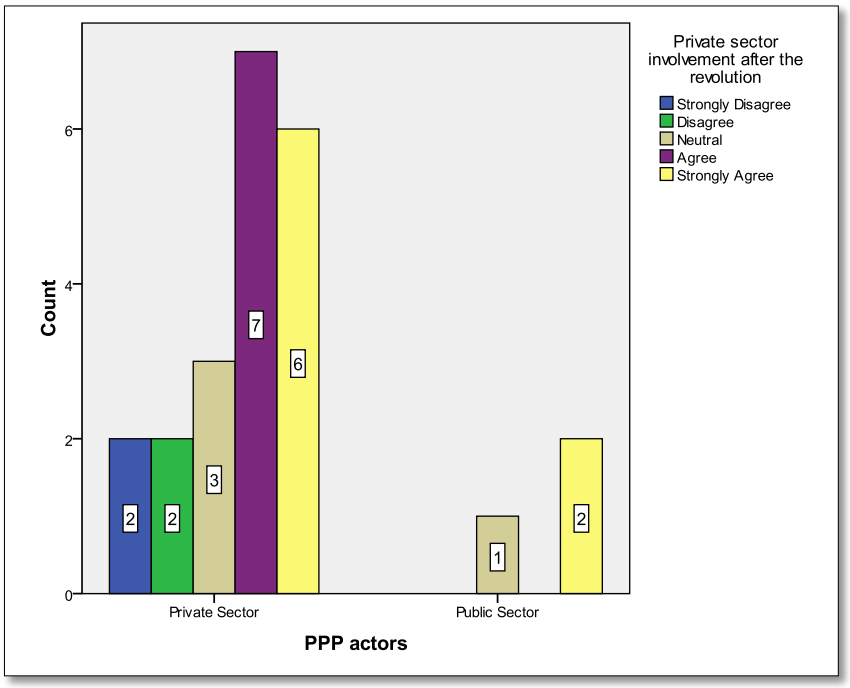


Figure 22 :

The relationship between 'The PPP actors', and 'The involvement of the private sector after the Egyptian revolution'

Table 50 and figure 22 show that both the respondents from the private sector and the public sector agree and strongly agree about the private sector involvement after the Egyptian revolution. But the most strange notice from the graph, that seven respondents from the private sector are neutral, disagree, and strongly disagree about the private sector involvement after the Egyptian revolution.

[10] The relation between 'The PPP actors' and 'Allocating and sharing risks between the public and private sector' :

Table 51 : Crosstab of variables 'The PPP actors' & 'Allocating and sharing risks between the public and private sector'

PPP actors	Allocating & sharing risks between the public and private sector					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Private sector	4.3%	30.4%	26.1%	26.1%	-	**87%**
Public sector	-	8.7%	-	4.3%	-	**13%**
Total	**4.3%**	**39.1%**	**26.1%**	**30.4%**	-	**100%**

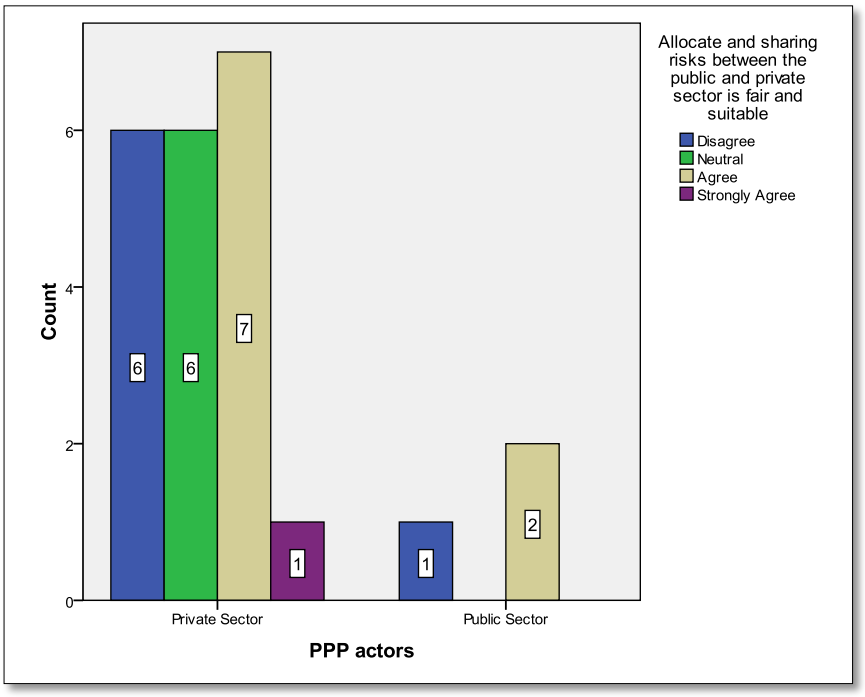


Figure 23 :

The relationship between 'The PPP actors', and 'Allocating and sharing risks between the public and private sector'

Table 51 and figure 23 show that 12 respondents from the private sector are neutral and disagree about the fairness and suitability of the risk allocation between the public and private sector. While 2 out of 3 respondents from the public sector agree about the fairness and suitability of the risk allocation between the public and private sector, which indicates that there's no fair in allocating risks from private sector perspectives.

[11] The relation between 'The community or district size' and 'The efficiency of the private participation in the PPP projects' :

Table 52 : Crosstab of variables 'The community or district size' & 'The efficiency of the private participation in the PPP projects'

District size	Efficiency of private participation					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Large (more than 5 million)	4.3%	-	4.3%	-	-	**8.7%**
Mid-size (from 3 - 5 million)	8.7%	8.7%	-	4.3%	-	**21.7%**
Small (from 1 - 3 million)	8.7%	8.7%	13%	4.3%	-	**34.8%**
Very small (less than 1 million)	17.4%	17.4%	-	-	-	**34.8%**
Total	**39.1%**	**34.8%**	**17.4%**	**8.7%**	-	**100%**

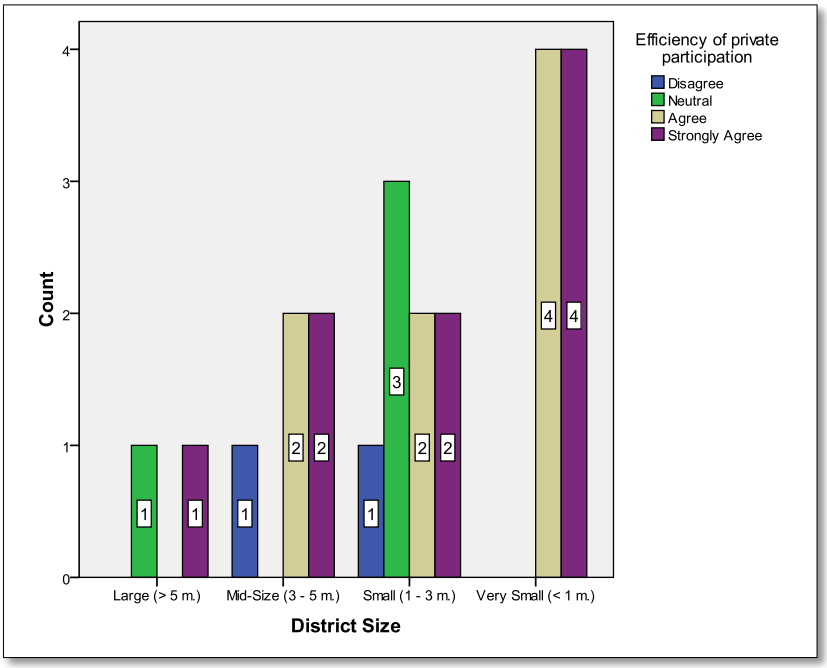


Figure 24 :

The relationship between 'The community or district size' and 'The efficiency of the private participation in the PPP projects'

Table 52 and figure 24 show that the private sector is efficient among the very small communities, as there is always support from these small communities to the private sector more than in the larger communities. This finding indicates that the private sector cannot provide a solution to the large communities in Egypt. According to the Egyptian population, the large communities is the most common in all cities.

[12] The relation between 'The community or district size' and 'The involvement of the private sector after the Egyptian revolution' :

Table 53 : Crosstab of variables 'The community or district size' & 'The involvement of the private sector after the Egyptian revolution'

District size	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Large (more than 5 million)	4.3%	-	4.3%	-	-	**8.7%**
Mid-size (from 3 - 5 million)	13%	-	4.3%	-	4.3%	**21.7%**
Small (from 1 - 3 million)	8.7%	13%	4.3%	4.3%	4.3%	**34.8%**
Very small (less than 1 million)	8.7%	17.4%	4.3%	4.3%	-	**34.8%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

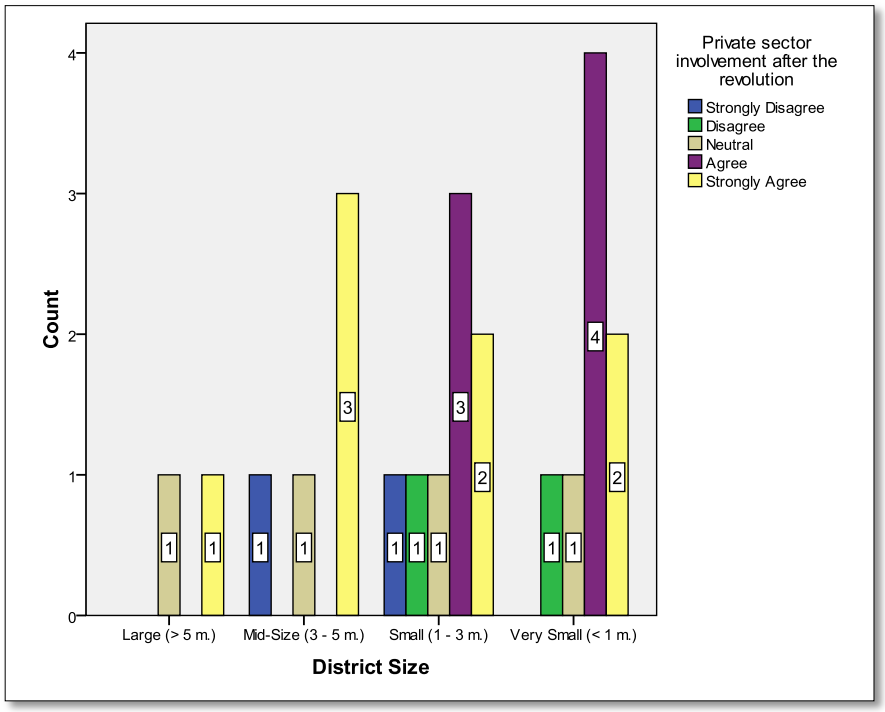


Figure 25 :

The relationship between 'The community or district size' and 'The involvement of the private sector after the Egyptian revolution'

Table 53 and figure 25 show that Those citizens living in small and very small communities are significantly more likely to support private sector involvement after the Egyptian revolution than those living in the mid-size and large communities.

[13] The relation between 'The community or district size' and 'The satisfaction level with the performance of BOT projects in Egypt' :

Table 54 : Crosstab of variables 'The community or district size' & 'The satisfaction level with the performance of BOT projects in Egypt'

District size	Satisfaction level of BOT performance					Total
	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	
Large (more than 5 million)	-	8.7%	-	-	-	**8.7%**
Mid-size (from 3 - 5 million)	-	-	8.7%	8.7%	4.3%	**21.7%**
Small (from 1 - 3 million)	-	8.7%	8.7%	13%	4.3%	**34.8%**
Very small (less than 1 million)	-	-	4.3%	17.4%	13%	**34.8%**
Total	-	**17.4%**	**21.7%**	**39.1%**	**21.7%**	**100%**

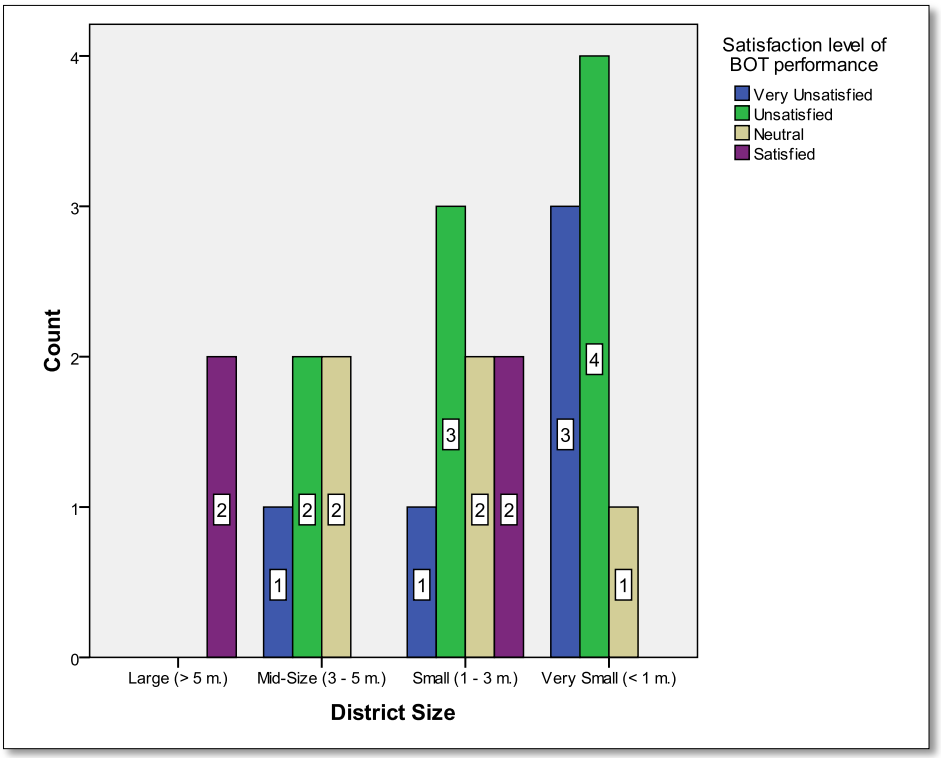


Figure 26 :

The relationship between 'The community or district size' and 'The satisfaction level with the performance of BOT projects in Egypt'

Table 54 and figure 26 show that those citizens living in large and mid-size communities are significantly more satisfied regarding to the BOT performance in Egypt than those living in very small communities.

[14] The relation between 'Whether the respondent knew about the PPP earlier' and 'The involvement of the private sector after the Egyptian revolution' :

Table 55 : Crosstab of variables 'Whether the respondent knew about the PPP earlier' & 'The involvement of the private sector after the Egyptian revolution'

Knew about the PPP earlier	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Yes	26.1%	26.1%	13%	-	8.7%	**73.9%**
No	8.7%	4.3%	4.3%	8.7%	-	**26.1%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

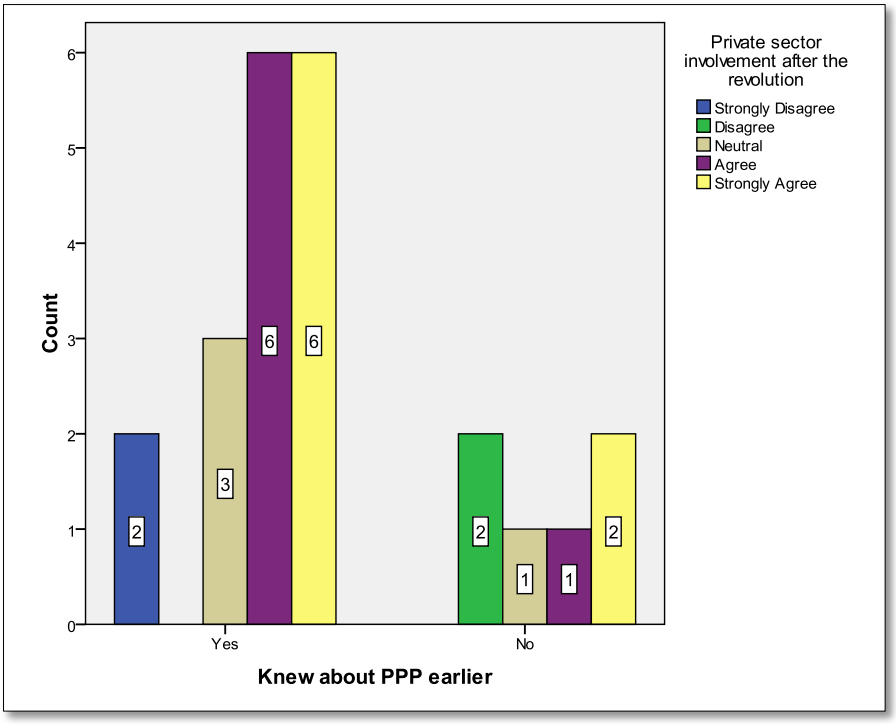


Figure 27 :

The relationship between 'Whether the respondent knew about the PPP earlier' and 'The involvement of the private sector after the Egyptian revolution'

Table 55 and figure 27 show that the respondents whom knew about the PPP earlier are significantly more agree and strongly agree than those whom didn't know about the PPP earlier. That illustrates how the previous knowledge about the PPP, and the importance of the private sector in PPPs is affecting the views of the respondents to give more intervention for the private sector.

[15] The relation between 'The involvement of the private sector after the Egyptian revolution' and 'Whether the PPP in Egypt satisfies the government perspective' :

Table 56 : Crosstab of variables 'The involvement of the private sector after the Egyptian revolution' & 'Whether the PPP in Egypt satisfies the government perspective'

PPP satisfies the government perspective	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Very satisfied	-	-	-	-	-	-
Satisfied	13%	4.3%	-	-	4.3%	**21.7%**
Neutral	8.7%	4.3%	4.3%	-	-	**17.4%**
Unsatisfied	8.7%	17.4%	13%	4.3%	-	**43.5%**
Very unsatisfied	4.3%	4.3%	-	4.3%	4.3%	**17.4%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

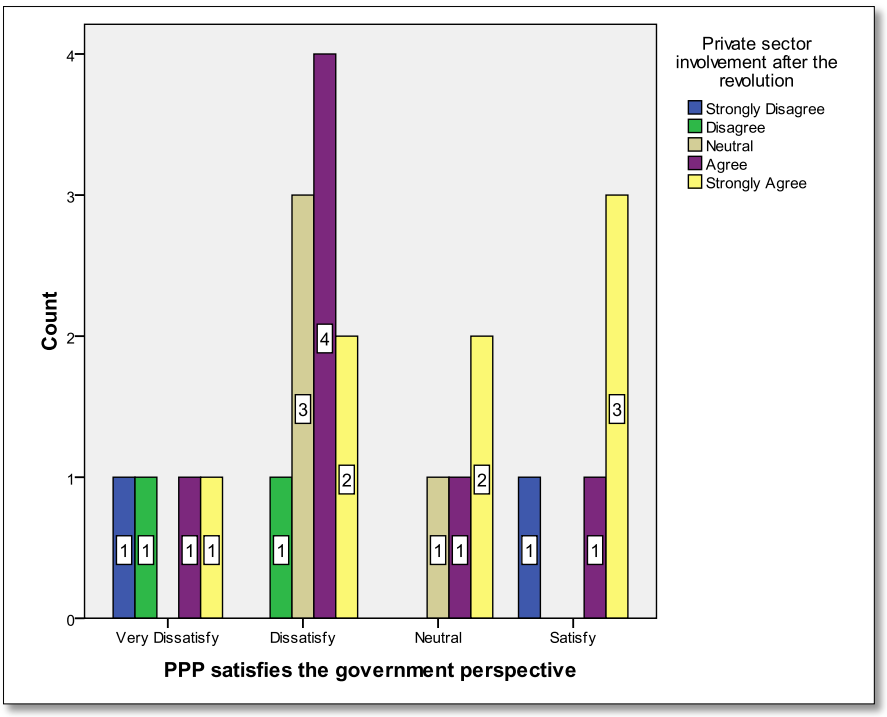


Figure 28 :

The relationship between 'The involvement of the private sector after the Egyptian revolution' and 'Whether the PPP in Egypt satisfies the government perspective'

Table 56 and figure 28 show that the respondents whom admitted that PPP dissatisfies the government are significantly more agree and strongly agree about the private sector involvement after the Egyptian revolution. That illustrates how the private sector involvement is important to make the PPP working well in order to satisfy the Egyptian government.

[16] The relation between 'The involvement of the private sector after the Egyptian revolution' and 'Whether the BOT projects in Egypt improve Value for Money' :

Table 57 : Crosstab of variables 'The involvement of the private sector after the Egyptian revolution' & 'Whether the BOT projects in Egypt improve Value for Money'

Value For Money	Private sector involvement after the revolution					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Very positive	-	4.3%	-	-	-	**4.3%**
Positive	13%	-	4.3%	-	4.3%	**21.7%**
Neither	13%	-	-	-	-	**13%**
Negative	4.3%	17.4%	13%	-	-	**34.8%**
Very negative	4.3%	8.7%	-	8.7%	4.3%	**26.1%**
Total	**34.8%**	**30.4%**	**17.4%**	**8.7%**	**8.7%**	**100%**

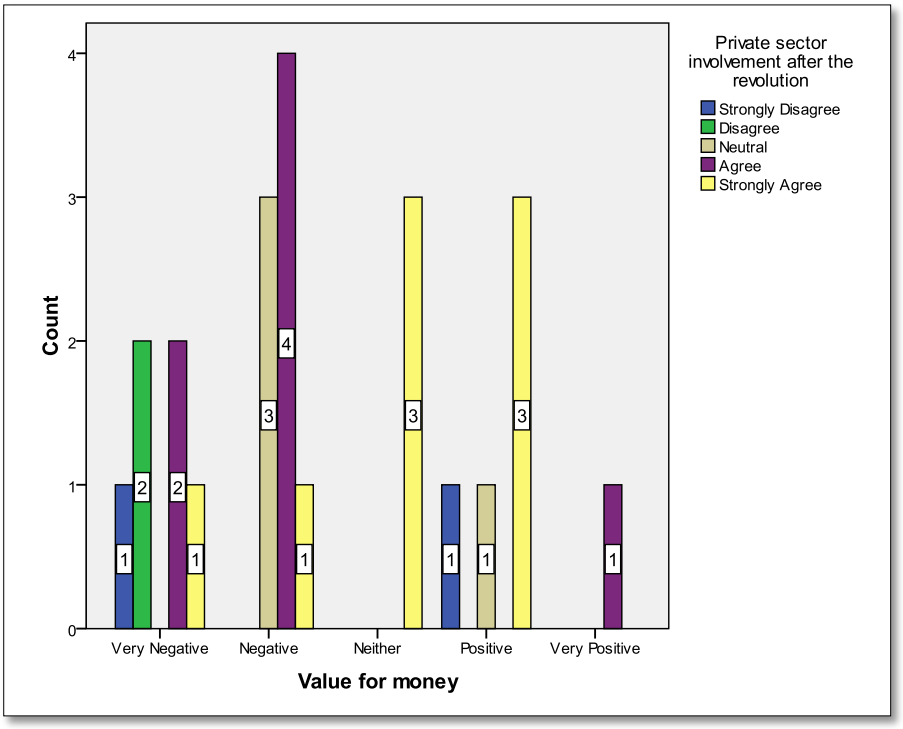


Figure 29 :

The relationship between 'The involvement of the private sector after the Egyptian revolution' and 'Whether the BOT projects in Egypt improve Value for Money'

Table 57 and figure 29 show that the respondents whom admitted that VFM is negative and very negative are significantly more agree and strongly agree about the private sector involvement after the Egyptian revolution. That illustrates how the private sector involvement is important to convert VFM from negative to positive in BOT projects in Egypt.

[17] The relation between 'The satisfaction level with the performance of BOT projects in Egypt' and 'Whether the PPP in Egypt satisfies the government perspective' :

Table 58 : Crosstab of variables 'The satisfaction level with the performance of BOT projects in Egypt' & 'Whether the PPP in Egypt satisfies the government perspective'

PPP satisfies the government perspective	Satisfaction level of the BOT performance					Total
	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	
Very satisfied	-	-	-	-	-	-
Satisfied	-	8.7%	8.7%	4.3%	-	**21.7%**
Neutral	-	-	4.3%	13%	-	**17.4%**
Unsatisfied	-	8.7%	8.7%	13%	13%	**43.5%**
Very unsatisfied	-	-	-	8.7%	8.7%	**17.4%**
Total	-	**17.4%**	**21.7%**	**39.1%**	**21.7%**	**100%**

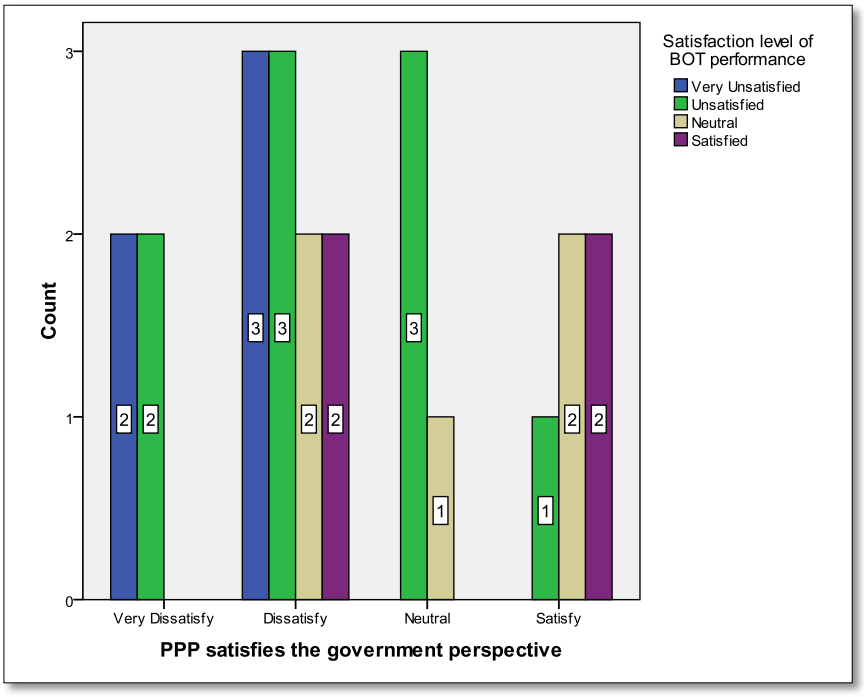


Figure 30 :

The relationship between 'The satisfaction level with the performance of BOT projects in Egypt' and 'Whether the PPP in Egypt satisfies the government perspective'

Table 58 and figure 30 show that the respondents whom admitted that PPP dissatisfies the government perspective are significantly more unsatisfied about the performance level of BOT projects in Egypt. That illustrates the positive correlation between the two variables, so if the people get satisfied from the BOT projects, the government will get satisfied from the PPP projects.

[18] The relation between 'Whether the BOT projects in Egypt improve Value for Money' and 'Whether the PPP in Egypt satisfies the government perspective' :

Table 59 : Crosstab of variables 'Whether the BOT projects in Egypt improve Value for Money' & 'Whether the PPP in Egypt satisfies the government perspective'

PPP satisfies the government perspective	Value For Money					Total
	Very positive	Positive	Neither	Negative	Very negative	
Very satisfied	-	-	-	-	-	-
Satisfied	4.3%	8.7%	4.3%	-	4.3%	**21.7%**
Neutral	-	-	8.7%	8.7%	-	**17.4%**
Unsatisfied	-	13%	-	17.4%	13%	**43.5%**
Very unsatisfied	-	-	-	8.7%	8.7%	**17.4%**
Total	**4.3%**	**21.7%**	**13%**	**34.8%**	**26.1%**	**100%**

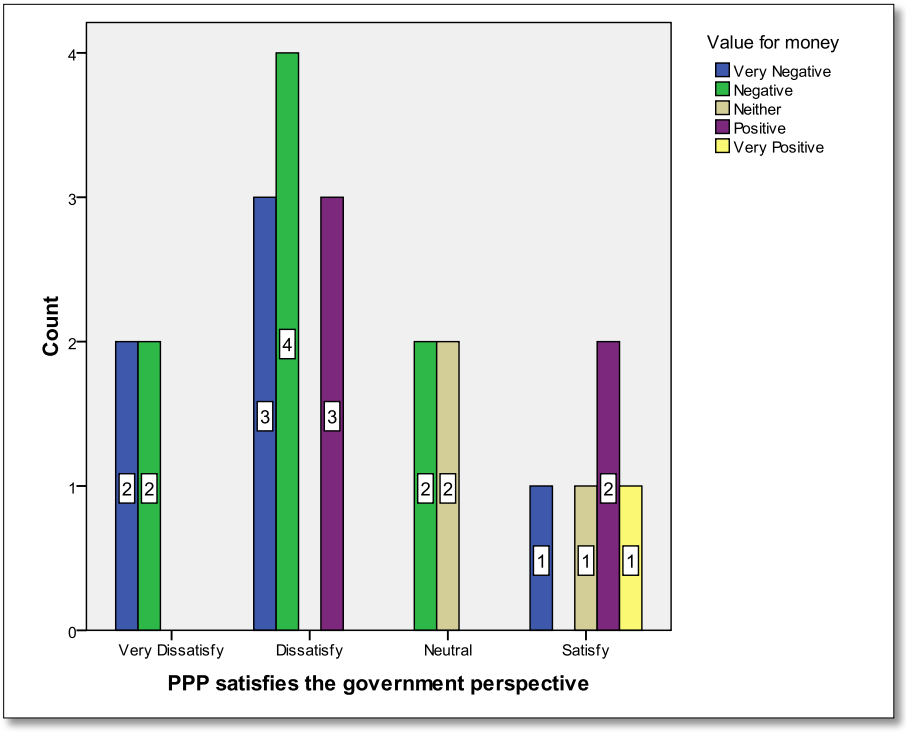


Figure 31 :

The relationship between 'Whether the BOT projects in Egypt improve Value for Money' and 'Whether the PPP in Egypt satisfies the government perspective'

Table 59 and figure 31 show that the respondents whom admitted that PPP dissatisfies the government perspective are significantly the respondents whom admitted that the VFM is negative and very negative in BOT projects in Egypt. That illustrates the positive correlation between the two variables, so if the VFM becomes positive, the government will get satisfied from the PPP projects.

[19] The relation between 'The satisfaction level with the performance of BOT projects in Egypt' and 'Whether the BOT projects in Egypt improve Value for Money' :

Table 60 : Crosstab of variables 'The satisfaction level with the performance of BOT projects in Egypt' & 'Whether the BOT projects in Egypt improve Value for Money'

Value For Money	The Satisfaction level of BOT performance					Total
	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied	
Very positive	-	4.3%	-	-	-	**4.3%**
Positive	-	13%	8.7%	-	-	**21.7%**
Neither	-	-	4.3%	8.7%	-	**13%**
Negative	-	-	4.3%	30.4%	-	**34.8%**
Very negative	-	-	4.3%	-	21.7%	**26.1%**
Total	-	**17.4%**	**21.7%**	**39.1%**	**21.7%**	**100%**

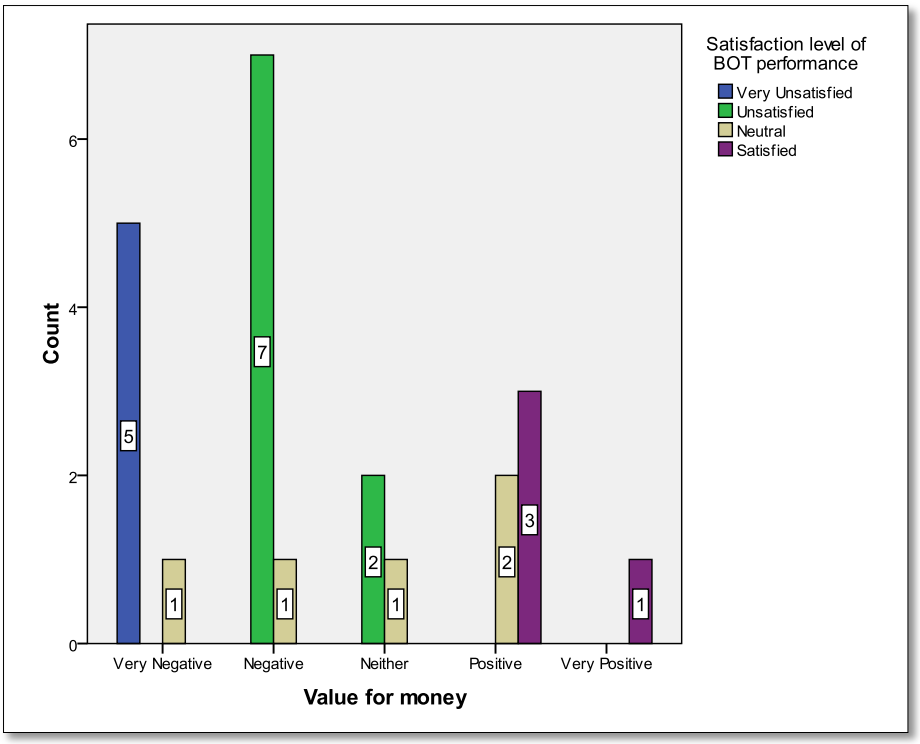


Figure 32 :

The relationship between 'The satisfaction level with the performance of BOT projects in Egypt' and 'Whether the BOT projects in Egypt improve Value for Money'

Table 60 and figure 32 show that the respondents whom admitted that the BOT performance is unsatisfied and very unsatisfied are significantly the respondents whom admitted that the VFM is negative and very negative from the BOT projects in Egypt. That illustrates the positive correlation between the two variables, so if the BOT performance satisfies the people, the VFM will become positive.

[20] The relation between 'The PPP sectors' and 'The risks faced the different PPP projects' :

Table 61 : Crosstab of variables 'The PPP sectors' & 'The risks faced the different PPP projects'

Sector	Risks								Total
	Technical	Construction	Operating	Revenue	Regulatory / Political	Environmental	Financial	Force majeure	
Water and sewerage	13%	13%	8.7%	4.3%	17.4%	8.7%	8.7%	-	**73.8%**
Telecommunication	8.7%	-	4.3%	8.7%	4.3%	-	8.7%	-	**34.7%**
Energy - Natural gas	4.3%	8.7%	4.3%	-	4.3%	8.7%	4.3%	-	**34.6%**
Energy - Electricity	4.3%	4.3%	4.3%	8.7%	8.7%	-	8.7%	-	**39%**
Transport - Airports	8.7%	-	8.7%	8.7%	13%	4.3%	8.7%	4.3%	**56.4%**
Transport - Seaports	-	4.3%	4.3%	4.3%	4.3%	-	4.3%	-	**21.5%**
Transport - Subways	4.3%	4.3%	-	-	-	4.3%	4.3%	4.3%	**21.5%**
Roads and highways	-	4.3%	-	-	-	-	4.3%	-	**8.6%**
Health	8.7%	8.7%	-	-	-	-	8.7%	-	**26.1%**
Total	**52.2%**	**47.8%**	**34.8%**	**34.8%**	**52.2%**	**26.1%**	**60.9%**	**8.7%**	

Table 61 shows that the high number of risks facing the different sectors (about 73 risks within the surveyed projects). The most common risks among the projects are: The financial risk 60.9 %, technical risk 52.2 %, and the Political / regulatory risk 52.2 % .

PART THREE : CONCLUSIONS AND RECOMMENDATIONS :

1. CONCLUSIONS

The conclusions from the review of the related interviews and questionnaire survey are:

1. The time-consuming deal flow for PPP projects in Egypt is due to capacity constraints in regional governments and municipalities.
2. The inadequate project management approach, delays the PPP implementation.
3. The use of PPPs brings benefits due to budget limitations in the public sector capital.
4. The small number of PPP projects is due to poor management.
5. The high cost of PPP projects is due to the government budget constraints, and not enough subsidies for PPP projects.
6. The investment level in PPP projects depends on the public sector’s marketing plan, and incentives given to the private sector.
7. Unsuccessful risk distribution can lead to huge financial failure and renegotiation of PPP deals.

8. The new PPP policy framework and guidelines from PPP act in Egypt are adequate, if well interpreted and applied can provide the vehicle for more projects, and urge more development in the infrastructure sector.
9. Sustained PPP awareness, training and education is essential to the flourishing of the PPP projects in Egypt.
10. The slow implementation of infrastructure development and provision of social services in Egypt is due to capacity and finance limitations resulting from inadequate employment of the PPP approach in the procurement and management of government projects.

2. RECOMMENDATIONS

The following recommendations are based upon the findings of the questionnaire analysis:
1. There is a need for government divisions and other PPP executing agencies to build and maintain capacity, in order to facilitate the deal flow for PPP projects in provincial governments and municipalities.
2. It is important to adopt a project management approach at all levels to the implementation of PPP projects in Egypt.
3. The use of PPPs should be adopted as a substitute procurement strategy, since the questionnaire findings indicate that it delivers benefits due to budget limitations in the public sector capital.
4. Training in project management skills is needed for accounting officers and other staff to be able to figure a viable PPP projects.
5. Empirical evidence from the questionnaire analysis shows that the high cost of PPP projects is because of the government budgetary limitations, and insufficient subsidies for projects.
6. The investment level in PPP projects depends on the public sector's marketing strategy, involvement and incentives for the private sector. A clear marketing strategy should be created and implemented by all PPP actors.
7. The Ineffective risk allocation can lead to huge financial failure and renegotiation of PPP contracts. PPP agencies should ensure fair and appropriate risk sharing and distribution.
8. The questionnaire findings show that the existing PPP policy framework and guidelines in Egypt are adequate, and if properly interpreted and applied can catalyze more PPP projects, and urge growth in the infrastructure sector. PPP guidelines and implementation toolkits should be standardized and used by various PPP divisions.
9. There is a need for sustained PPP awareness, training and education for the public, as an essential tool for flourishing the PPP sector in Egypt. PPP courses should be developed at different levels and used for training implementing officers.

10. The slow implementation of infrastructure development and provision of social services in Egypt is due to capacity and finance constraints resulting from poor utilization of the PPP approach in the procurement, development, and management of government projects. Various agencies should adopt a PPP approach, where appropriate, in infrastructure development and service delivery.

3. RECOMMENDATIONS FOR FUTURE RESEARCHES

The following recommendations for future studies are based upon the findings and conclusions of this questionnaire:

1. Further systemic research should be conducted in relation to the causal interrelationships for the various PPP factors within the PPP environment.
2. The PPP performance surveys should be conducted on a yearly basis, preferably twice, so that trend analysis results can tell decision-makers about effective monitoring and control.
3. A comparative study on transaction costs of PPPs between Egypt and other country is recommended, such as South Africa which considered one of the top five and number one in Africa in regard to the PPP.
4. Risk management should ensure a fair allocation to avoid the tendency to transfer risks after contracts have been signed, and it's recommended that the PPPCU to conduct specific researches to compare performance across the PPP and non-PPP contracts.
5. Researchers need to test the processes that need systemic improvement to facilitate PPP delivery.
6. Researchers should examine the reason behind the lack of the PPP's deal flow despite the concerted improving efforts.
7. Researchers should investigate about the way the PPP directors can implement systemic strategies in PPP procurement processes.

CHAPTER (4)

Flourishing The PPP in Egypt

INTRODUCTION

This chapter is the final approach in this study in order to understand the PPP in Egypt and why it's not working in a proper way according to the theory. This chapter helps the decision makers in Egypt to look in depth to the progress of the PPP achieved until now and the current performance in the PPP projects and the main challenges face the PPP program in Egypt. Also it's a good chance for the Egyptian decision makers to understand the Korean experience in the PPP and some of the very successful cases in South Korea, and why South Korea now considers one of the world's top five in regard to the PPP. In addition to the lessons learned from the Korean experience which is truly demanded in Egypt, especially during the current political situation as everything going to be reformed in the country, and this is the time to reform PPPs as well.

IMPLICATIONS FROM PPP PERFORMANCE IN EGYPT

Organization for Economic Cooperation and Development, The Report of Competitiveness and private sector development in Egypt, 2010, mentioned that :

"Egypt has leapfrogged several stages of development in telecommunications. The sector has been fully liberalized in mobile telephony and partially liberalized in the Internet sector. The mobile telephony sector is operated by three independent operators with foreign investors: Vodafone Egypt (UK), Mobinil (France) and Etisalat (UAE). Internet service provision is open to the private sector, even though bandwidth has to be purchased from Telecom Egypt. There were plans to liberalize the fixed-line telephony sector through the auction of a second fixed license in 2008, but this was postponed as the onset of the global recession limited investors' appetite.

Coming from a low base, major efforts have been made in the air travel sector, as a support to the development of tourism and trade: airport facilities have been upgraded and expanded, with new terminals for Cairo and Sharm El-Sheikh, and a new airport at Marsa Alam in Upper Egypt (the south of the country). Air travel has been partially liberalized (Open Skies agreement signed in 2000), even though barriers remain for charter and low cost flights, notably to Cairo International Airport. The domestic routes will however be opened for competition from 2010.

Some reform has taken place in the railway sector, restructuring the national company, ENR, into separate subsidiaries for train operations in short-distance passenger transport, long-distance passenger transport, freight, and infrastructure. However, private sector participation continues to be restricted to new line construction and operation, and no third-party access is foreseen for the time being. A PPP program is under way and will include upgrading and expansion of the railway network, new station buildings, including retail and leisure space, and the purchasing of new rolling stock.

Reforms in the maritime port sector started in 1997, introducing private sector participation in many port services, including build-own-operate schemes for the construction and handling of freight at East Port Said, which has been highly successful.

However, the unbundling of the public players is not yet completed, given that the government controls most of the sector through cross-shareholdings between the landlord, regulatory and operating entities.

In the road sector, the maintenance budget has been tripled in an effort to restore basic quality to the previously poorly maintained network. New highways are being put out for tender, including Cairo-Alexander road, and there will be new opportunities for the PPP in the sector from the second half of 2010.

In the power sector, a new electricity law is in the making, which should allow for increased competition in the sector. Water treatment is being upgraded, with the first successful PPP tender for the construction of a waste-water treatment plant in New Cairo having been completed in 2009, and three more projects under tender."[19]

In Egypt, the reasons for private sector participation in BOT projects are the government needs to get those kind of projects, the government unwillingness to finance infrastructure projects, the government unwillingness to distribute risks in such projects, and the availability of finance given by lending institutions.

Although it has worked and done on a new PPP policy, the GOE isn't completely unfamiliar with the PPP concept, as it carried out a few infrastructure projects before 2010.

Table 62 : Private participation in infrastructure projects in Egypt from 1990 till 2010

Primary Sector	Sub-sector	# PPP Projects in Infrastructure	PPP Investment Value (USD million)
Energy	Electricity	3	$ 1.092
	Natural gas	2	$ 689
Telecom		6	$ 16.363
Transport	Airports	7	$ 398
	Seaports	4	$ 1.917
Water and Sewerage	Treatment planet	1	$ 475
	Utility	1	0
Total		**24**	**$ 20.935**

Source : PPIAF, The World Bank Group, December 2011

Even with the increase in PPP motion, and several projects in the pipeline, judging by the cash flow, funding remains a major problem in Egypt when it comes to larger infrastructure projects. Commercial banks in Egypt can only provide funding for up to five years, which is not an attractive or viable financing option for many of the larger PPP projects where cash flow is generated only after a few years. According

[19] OECD. Competitiveness and Private Sector development in Egypt: Business Climate development Strategy Report. Paris: OECD, 2010.

to Dr. Hani Sarie-Eldin, founder and chairman, Sarie El Din & Partners Law firm "Many of the projects carried out under the PPP model did not have economic or social viability"[20].

The financing challenges that the PPP projects faced were mainly due to the fact that PPPs were not well defined, and there was a resistance to the idea of PPPs in Egypt because it was a new concept in the Egyptian market. Although the process of executing a PPP project is very expensive for the government, the benefits associated with such projects are mainly related to better-quality services for the public.

Another problem that has been highlighted is the government's unwillingness to guarantee the convertibility of profits from PPP projects. Currently the government is not providing any convertibility guarantees to the private sector, which results in less demand.

In fact, the government should focus on needed projects, and not keep any amount of money for project maintenance, as the private sector could maintain that project for many years.

Risk factors play a big role to determine the success of PPPs in Egypt. Examples for these factors; The lack of political leadership, vision and strategy, Lack of resources-creeping commitments, Inappropriate definition of project goals and scope, Defining a formula for shared revenues for a fair contract, Automation without process reengineering, Short tenure of implementers with hurried implementation, Management of change-resistance from vested interests, Use of untested fancy technology, and inadequate attention to monitoring and evaluation.

CHALLENGES FOR THE EGYPTIAN PPP PROGRAM

(1). Institutional Capacity :

Developing large-scale PPP projects should be done by strengthening institutional capacity. Such as the case of the constructing 345 school buildings in various locations in Egypt, which postponed because of limited resources, and non-existing market appetite for those types of projects, in addition to the ways of the PPPCU to manage mega-projects.

(2). Funding Availability :

In mid 2009, Even with the success of the wastewater facility in the New Cairo project, which took a long time to finish, private sector funding for the project remains the key constraint, especially for larger infrastructure projects. Commercial banks in Egypt cannot finance projects extended for longer than five to seven years, which is not a feasible financing option for many PPP projects where cash flow is generated only after several years of operation. In addition, funding small to medium sized PPP projects, as limited finance from the domestic banks can be overcome by foreign credit. The Government's policy target is to

[20] Round-table Discussion on PPP: The Egyptian Experience. (BEBA) British Egyptian Business Association, February 23, 2010.

fund investment spending by the domestic currency (EGP) as possible as they can, to keep away from exchange rate risks on foreign currency borrowing.

"The Egyptian government should use a mix of local and international currencies", according to Martin Amison, partner at the UK-based law firm Trowers & Hamlins, which advises the Egyptian government on a number of PPP projects. He said "it would be surprised to see all PPP schemes financed in Egyptian pounds. Most countries doing PPPs have to borrow from outside their borders, and weak currency issues have to be addressed, the government should reconsider its currency position, at least for larger projects", he said[21].

Ashraf Shoukri, ex-senior legal advisor to the Minister of Finance said "The Egyptian government should consider giving more currency guarantees for a while to attract investment in the short term, due to the current financial situation of the country". He noted also that "the currency risks are something investors have to deal with on mega projects": (*Financial Times, 2011*)

Michael Lacey, managing partner in legal firm SNR Denton said "Although some international financial institutions have issues mitigating local currency fluctuations, the appetite for PPPs remains, even in the current challenging situation". She added "I think when the projects start rolling out and an elected government that reflects the will of the people is behind such PPP programs, people will find a way to make money out of this and as long as there are sufficient financial participants, the currency mitigation is not going to be a problem.": (*Financial Times, 2011*)

(3). Macroeconomic Risks :

Inflation and exchange rate risks must be bears in the payment mechanism in regard to the long-term fixed rate bank funding in the Egyptian currency.

(4). Risk Sharing :

The government doesn't guarantee the profits convertibility from PPP projects to the private sector, which pushing down the demand for infrastructure fund. So the government should work as a hedge to protect PPP projects against exchange rate and the other risks encountered by investors.

Regarding the recent political unrest in Egypt, the demand for political risk guarantees are requested by the investors and IFIs. The MOF provides sovereign guarantees for payments, which is enough for investors, even in times of turmoil as the Egyptian PPP contracts include guarantees to protect investors against changes in the law. In August 2011, the PPPCU started to receive approaches of willingness from the major Egyptian banks such as Banque Misr, National Bank of Egypt, Commercial International Bank

[21] Hassan, Atef. "Egyptian PPP outlook positive despite of financing challenges" World business, finance, and political news from the Financial Times, November 1, 2011.

(CIB), HSBC, Alexandria Sanpaolo, and NSGB to finance some of the PPP projects that no longer required political risk guarantees.

The PPPCU currently studying the bankability of some pipeline projects, pursuant to new developments in the country. Banque du Caire (BDC), the Egyptian state-owned bank, still has an appetite for financing PPPs in Egypt, depending on the nature of each project, like all state-owned banks, BDC has to support national projects.

InfraMed, an infrastructure fund co-founded by EFG Hermes company - one of the biggest companies works in the financial services sector - which has recently approached to the PPPCU for a list of projects and prequalified investors providing both equity and debt finance for PPP projects.

(5). Private Sector Constrains (Consumer Perception) :

Private investor participation is limited mostly to new build projects, as there is a perception that it leads to higher fees for the consumer. For example, in the rail sector, private companies may only build new track and operate trains on it under BOOT schemes. The same restriction applies to electricity distribution and may soon be extended to optical fiber networks and satellite systems for rural connectivity. Private sector participation has yielded success in mobile networks, where everything had to be built from scratch.

With the exception of the port sector, Egypt has little experience of outsourcing management contracts or operating concessions to private businesses.

(6). PPPCU has faced resistance from line ministries :

Despite the coordination function between the PPPCU and the line ministries, and because of the delay of seeing the value added of the PPPCU, and the uncertainty of its benefits, There has been struggle and conflict from the line ministries in opposition to the PPPCU's idea, which means a signal of a miscommunication problem.

(7). Public perception of the PPP as privatization :

The backdrop of the Egyptian privatization program happened during the financial crisis in 2008 which made confusion and doubts to both the investors and Egyptian citizens. From the citizen perspective, the PPP program is looking like privatization and the pessimism perception of most of the Egyptians - especially poor - is still exist about both privatization and PPP as one bundle.

(8). Project ownership issue :

The continuing conflicts between the private sector and the public authority remain the main issue in the public perception, especially for foreign investors. "In Egypt, some sectors where foreign investment is only allowed in the form of joint-venture companies in which foreign equity does not exceed 49 %. Such

sectors are construction, maritime transport, air transport, and courier services, considered economically strategic and associated with national security issues."[22]

Egyptians are the same as those kind of nations, whom have fears from the foreigner ownerships issue, and their intervention in the country, It's called " *Xenophobia* "[23]. However, the practices of OECD countries have shown that only very slight constraints on foreign ownership are demanded to deal with particular national security and public concerns.

(9). The scope of PPP program is too wide and ambitious :

PPPs seek to meet up a lot of objectives in a very short time with efficiency and jobs creation, which raise a large number of incompatible policy matters and create doubts among the Egyptians.

SUCCESSFUL CASES FROM THE KOREAN PPP[24]

(1). BTO Projects :

"Concentrated on transportation services including roads, railways, and seaports. Road projects account for more than half of all investment, and environmental facilities top the list for the highest number of projects (while having the least cost per project)."

BTO Case Studies :

☯ ***Incheon International Airport Expressway :***

"The first BTO road project carried out under the 1994 PPP Act. It originally started as a government-financed project but was turned into a BTO project later on to help ease the fiscal burden. Its early completion has played a significant role in the successful operation of Incheon International Airport. Since its completion in 2000, the project has undergone a refinancing process and now all equity holders are financial institutions.

Total Project Cost : ₩ 1,334 billion KRW

Length : 40.2 km, 8 lanes

[22] MENA-OECD. "Policy Assessment in Egypt: Privatization Policy and Public Private Partnerships." Business Climate Development Strategy (2010).

[23] Xenophobia: Means the unreasonable fear of foreigners or strangers or of that which is foreign or strange, including a fear of losing identity, suspicion of its activities, aggression, and desire to eliminate its presence to secure a presumed purity - Source : http://en.wikipedia.org/wiki/Xenophobia

[24] PIMAC. "Building a Better Future through Public - Private Partnerships in Infrastructure in Korea." Public and Private Infrastructure Investment Management Center (2009).

Competent Authority : Ministry of Land, Transport, and Maritime Affairs

Construction Period : 1995 ~ 2000

Operation Period : 30 years

Capital Structure : Equity / Debt / Subsidies = 25 % / 59 % / 16 %"

☯ ***Incheon Bridge :***

"A cable-stayed bridge of the world's fifth longest main span, and the first PPP project in Korea led by a foreign company. The private sector implemented the construction of 12.34 km section of the bridge, while the government took charge of 9.04 km section which includes the access road. The bridge connects the 2nd and 3rd Kyungin Expressways and Seohaean Expressway, thereby reducing travel time to and from Incheon International Airport and south of Seoul by more than 40 minutes.

Total Project Cost : ₩ 1,096 billion KRW

Capital Structure : Equity / Debt / Subsidies = 10 % / 41 % /48 %

Length : 12.3 km, 6 lanes (21.4 km including access road)

Competent Authority : Ministry of Land, Transport, and Maritime Affairs

Construction Period : 2005 ~ 2009

Operation Period : 30 years"

☯ ***Busan New Port Phase 1 :***

"The project aims to expand and improve Busan's dilapidated ports, establishing a logistics hub port for Northeast Asia. Nine of 30 berths have been allocated as BTO projects, with the first six of them completed in 2006 and 2007. In addition to Korean contractors and financial institutions, DP World, a global port developer and operator, holds a 25 % equity stake to participate in its operation.

Total Project Cost : ₩ 1,640 billion KRW

Capital Structure : Equity / Debt / Subsidies = 20 % / 55 % / 25 %

Work Scope : 9 berths (50,000 t), 3.2 km

Competent Authority : Ministry of Land, Transport, and Maritime Affairs

Construction Period : 2001 ~ 2009

Operation Period : 50 years"

(2). BTL Projects :

"BTL projects, first began in 2005, and have been actively practiced especially in building and reconstructing old educational facilities like elementary, and middle schools, vocational colleges, and university dormitories. BTL projects are making a great involvement to expanding and improving sewage systems and military residences, and building new railways. As BTL projects work to renew the bad-

maintained school buildings, military residences, and sewage pipes at a prior than conventional procurement can generally do, which ultimately benefits students, military personnel, and ordinary citizens. The creative and efficient management techniques of the private sector in BTL projects have helped to raise the service quality, leading to higher user satisfaction rates by constructing libraries and gymnasiums and school buildings - and not just students - benefit from these facilities."

BTL Case studies :

☯ ***Chungju Military Apartment Housing :***

"The first BTL project carried out in Korea. The modernization of military residential facilities had been delayed due to insufficient budgets, but was implemented at a rapid pace with the introduction of the BTL method. A total of 200 families moved into 12 apartment buildings, with more than 95 % of residents expressing satisfaction with the facilities in a survey.

Total Project Cost : ₩ 18.6 billion KRW

Work Scope : 200 households and convenience facilities

Competent Authority : Ministry of Defense

Construction Period : 2005 ~ 2007

Operation Period : 20 years"

☯ ***Ulsan National Institute of Science and Technology :***

"The first campus ever built entirely by the BTL method utilizing a 'smart' state-of-the-art, environmental-friendly, and digitized design. The project company is not only responsible for facility maintenance, management, cleaning and security, but also operates and manages the school's dormitories, gymnasiums, shops, and parking lots.

Total Project Cost : Approximately ₩ 250 billion KRW

Work Scope : Site 1,028,200 m^2, Total Floor Area 153,691 m^2

Competent Authority : Ministry of Education, Science and Technology

Construction Period : 2007 ~ 2010 (1st Phase 2007 - February 2009)

Operation Period : 20 years"

☯ ***Anhwa High School :***

"One of the Korean's leading BTL school projects. In 2007' it was the recipient of an award in recognition of its excellent facilities from the Minister of Education and Human Resource Development. There are currently more than 1,000 students enrolled at the school, which opened with state-of-the-art facilities and equipment, and is now under the management of the project.

Total Project Cost : Approximately ₩ 962 million KRW

Work Scope : Site 13,264.03 m^2, 5 Stories above ground

Competent Authority : Gyeonggi Province Office of Education

Construction Period : 2006 ~ 2007

Operation Period : 20 years"

(3). MEGA PROJECTS Case studies in South Korea :

☯ ***Incheon International Airport :***

"The largest airport in South Korea, located 70 km (43 mi) west of Seoul, the capital and largest city of South Korea. Total passengers in (2009 - 2010) is 28,677,161 . The total cost of two phases up till now is $ 7.6 billion US Dollars. The primary airport serving the Seoul national capital area, and one of the largest and busiest airports in the world. From 2006 to 2010, it was rated the best airport in the world by the Airports Council International. The airport has a golf course, spa, private sleeping rooms, ice skating rink, a casino, indoor gardens and a Museum of Korean Culture.

Incheon International Airport is also currently Asia's eighth busiest airport in terms of passengers, the world's fourth busiest airport by cargo traffic, and the world's eighth busiest air port in terms of international passengers in 2010."

☯ ***Seoul Metropolitan Subway :***

"It began operating Line 1 in 1974. Lines 2, 3, and 4 followed in the late 1970s and 1980s. In 1994, the operation of lines 5 to 8. Seoul Metro Line 9 Corporation (A joint venture between Veolia Transport and Rotem) was formed in 2009 to operate line 9.

Seoul Metro is the world's 4th rank after subways in London, New York, and Tokyo. Seoul metro has 265 stations with 286.9 km. The number of daily passengers is 3,960,000 riders (an equivalent to a quarter of Seoul's entire city population)."

☯ ***Gyeongin Canal :***

"The construction period started in 2009 until 2011 from Seogu Incheon (Yellow Sea) to Gangseogu Seoul (Han River) with length 18 km (width 80 m, depth 6.3 m), where 14 km will be used a drainage canal in case of flood. The total project cost is ₩ 2.25 trillion KRW ($ 2 million USD).

This canal will connect Incheon and Gimpo terminals through house cargo storing, assortment, processing, assembling, and distribution facilities. And By 2030, the canal is estimated to be able to handle the annual transportation of about 970,000 TEU containers 7.65 million tons of steel and related products and 6,000 cars, 9.13 million m^3 of sea sand, and 1.05 million passengers. It will help distribute inland logistics. The project is expected to create new jobs, generate economic spillover effects worth ₩ 3 trillion KRW, thus invigorating the regional economy. After the canal is complete, about 1,350 people will be needed for canal management. In addition, The canal, itself, will work as a tourist attraction."

LESSONS LEARNED FROM THE KOREAN EXPERIENCE IN THE PPP

The strong political commitment, the stabilized institutional framework with strong leadership, the agile policy change adopting to the market, the flow of bankable projects, and the increased capacity in the private sector are the main general reasons make South Korean' PPP to take the lead and become a pioneer between many countries.

Key Success Factors for the PPP in South Korea :

1. The solid legal framework corresponding to international standards with a clear and consistent implementation procedure regulated by PPI act, and implementation guidelines, and the fair equal treatment of domestic foreign investors.

2. Strong government commitment such as the technical assistance provided by PIMAC through reviewing of RFPs & PPI contracts, assistance in project evaluation and negotiation, research for PPI policies and guidelines, etc.

Also the supports provided by the government such as construction subsidy, MRG, mitigation of risks, etc.

3. Central role of MOSF in developing national PPI policies, guidelines, and fiscal rules, coordinating sectoral PPI plans and establishing comprehensive investment plans, and reviewing and approving the nationally managed PPI projects. In addition to the role of MOSF in convincing PPI committee when necessary.

The Key Policy issues in the Korean PPP :

1. Expansion of the public involvement model in BTL to enhance service quality and user satisfaction of social infrastructure, e.g. dormitories, schools, welfare and cultural facilities, etc.

2. Promotion of integrated facilities, such as BTL facilities with multiple functions (schools, sports center, public libraries, and nursery center, etc.) and the efficient use of land and other facilities.

3. Development of standard models for major facility types through efficient and transparent procurement process :

• Guidelines for feasibility / VFM test, RFP, output specifications, standard BTL contract, etc.

• School, environmental facility (ex. sewer pipe), military housing, cultural facilities.

4. The bidding policies which adopted the market :

• Encouragement of competitive bidding: Mandatory rebidding in case of single bidder.

• Compensation for the second preferred bidder.

• Introduction of VFM test for unsolicited bids.

• Incentive for equity investment of pension funds: Equity requirement 25% - >20% .

• Incentive for operating company’s participation : Bonus points of 5% in bid evaluation.

• Improvement of the traffic database.

5. Strengthening global networks and knowledge exchange for promotion of the PPP beside the growing interests in the PPP worldwide, through international events, official study visits, and interchange of personnel, etc. - *Several ways of international cooperation through :*

• Multilateral cooperation : International conferences, seminars, etc.

• Bilateral cooperation : MOUs for establishing official networks among policy makers and practitioners, regular meetings, education / training programs, consulting, TA, etc.

Incentives given for improving the quality of Private Participation in Infrastructure :

1. Rational selection of the projects which reduce government spending or implement creativity and efficiency of the private sector in operating facilities.
2. Strengthening verification of the project feasibility, and the improvement of VFM test application.
3. Execution of post evaluation through the service satisfaction survey for users and the performance evaluation.
4. Transparent management of the PPP program and avoiding the preferential treatment.

Incentives given by the government to foreign investors :

1. Tax Reduction : (7 years) for income, and corporate taxes - Exemption for property, registration, and acquisition taxes - (3 years) for tariffs - Application of 0 % tax rate on VAT - (15 %) separate taxation on interest income from infra bond - Separate taxation on dividend income from the infra fund.
2. Cash Grants : Up to 15 % of the amount invested (for investment more than $ 10 million USD in high technology fields).
3. Location Support : Exemption from rent for 50 years or more for investors in FIZs, and support for infrastructure building.
4. Subsidize for employment and training.
5. Support for improvement of business and living environment.
6. Construction Subsidy : (30 ~ 50 %) of total investment for BTO scheme. In roads and ports, the subsidy is less than 30 %, and for rails, the subsidy is less than 50 %. While for freight terminals, there is no construction subsidy (BOO scheme).
7. MRG on solicited projects : Adopted after the financial crisis of the late 90s to induce the private investment in infrastructure.

In 2006, the MRG level reduced for solicited projects and abolished for unsolicited projects because of the inflated demand forecasting which happened due to the condition of 'MRG only permitted for projects more than 50 % of forecasted revenue'.

8. Concession termination payment for force majeure risks and bankruptcy.

➢ **In conclusion to all the previous points, The lessons learned from the Korean experience are as follows :**

(1). Clear and detailed regulatory frameworks, as the PPP is an unfamiliar and complicated process compared to traditional public service provision, especially the uncertainties and doubts at the initial stage, which needs to an appropriate legal framework.

(2). Government support and policy determination with introducing MRG, establishing PPP unit, introducing the social infrastructure fund, and the new schemes for PPP e.g. BTO, BOT, BOO.

(3). Special organization for the PPP to manifest policy determination, and to maintain institutional capacity.

(4). Development of financial industry, as private finance is heavily dependent on the degree of financial industry development. For long-term project financing is still on the verge of burgeoning in Korea, while financing practice in the banking sector is still dependant on secured loans rather than project financing.

In addition, governmental Guarantee for PPP investment can be powerful tools to supplement the weak financial industry.

(5). Fiscal integrity with strict management of total government expenditure for PPP, as the national assembly approval as to the annual BTL ceiling since 2009.

As known, the ways of government expenditure in the PPP are: Lease payment for BTL projects, Land acquisition cost for BTO, Construction subsidy, and MRG. The government expenditure for the PPP should be limited to 2 % of the entire yearly budget. The current estimation is 1.0 % (2009), 1.7 % (2015), and 1.8 % (2020).

RECOMMENDATIONS FOR PPP REFORM IN EGYPT

In view of the challenges that exist in the Egyptian PPP program, Here is some recommendations and ways concluded from this study in order to reform the PPP itself :

(1). Improve the involvement ways of the private sector :

The government strategy has to work for the better choices of appropriate companies and sectors, in order to get an efficient and high economic performance. The effective communication between private investors and public sector supports the PPP program and investor mobilizations. The Private sector involvement should be shaped in forms other than BOOT. As management contracts or operating and maintenance concessions could get positive private sector know-how to many fields and sectors such as fixed line telephony, electricity distribution, water and sanitation, railway operations, etc.

There are some recommendations in order to remove any obstacles facing the private investment. These recommendations are: the strategy acknowledged, a series of economic, financial, legal, and institutional reforms were necessary through reforming and upgrading the laws governing private investments in infrastructure facilities, reforming and improving the institutional framework, developing the communications strategy.

(2). Enhance the communication with investors and suppliers :

Consultation and discussion with a broad range of investors and stakeholders on a regular basis is very important, and should be made public and shared in conferences and seminars organized by the government. Applying the unsolicited projects' system in Egypt, enhance the creativity of private investors and give them the chance to develop and implement new projects in Egypt which cannot be created by the government vision.

(3). Enhance debts funding and financial coordination :

Banding the domestic banks with the IFIs, as well as foreign bank subsidiaries to improve debt funding for the Egyptian PPPs. Also enhancing the skills of PPP lending teams in the domestic banks through a series of targeted seminars sponsored by PPPCU. According to PPPCU data, Asian banks have shown interest to invest in Egypt. Exim Bank of Korea said it would give special interest rates for Korean companies participating in PPPs in Egypt to assist them in competing for projects. Also Japan Bank for International Cooperation (JBIC) offered similar conditions, though both lenders said they would limit financing for machinery bought in their own territories.

The banking sector is able to finance PPP projects if the following conditions were satisfied:

a.) Sufficient studies and business plans for these projects should be generated.

b.) There should be enough guarantees that the financed parties would commit to the repayment schedule of the loan.

(4). Enhance transparency, especially in the bidding process :

Implementing E-Government and simplified administrative procedures assist enhance the effectiveness and efficiency of the public sector. Promoting the use of ICT and administrative simplification apparatus to make the relationship between business and normal citizen with the government more transparent, short, and direct.

In addition, announcing procedures and schedules in official media, and on the PPPCU's website to guarantee its accessibility from everybody concerned about the bidding. Moreover, selecting the advisors and buyers through a competitive process.

(5). Providing sufficient resources for better performance :

These resources assist in facing the challenges of the PPP program related to staffing, training, communication, and structuring the proper guidelines, etc.

(6). Improving the performance of the PPPCU :

The government should coordinate and clearly assign the roles between the PPPCU within MOF, and the other satellite units embedded in the line ministries, and also with the MOI which remains responsible of other phases in the PPP process.

In order to enhance the human capital capacity of PPPCU, competent advisors should be appointed to help select PPP projects. Hiring and training staff with wide knowledge about the PPP is very important to PPPCU performance, as the expertise should come from sectors that are likely to benefit from PPPs.

The government should ensure that the new law is implemented fully. It should set up the Supreme Committee for PPP Affairs as soon as possible in order to provide the PPPCU with the necessary political support. Action should be taken to formalize the co-ordination mechanism between the PPPCU and the satellite units in the line ministries and in ministries, like the MOI, that handle other aspects of PPPs which help the investors to clear their confusion about who does what. Also in order to build the capacity of PPPCU, competent advisors should be hired to help it select PPP projects. Further measures could be to boost its human capital capacity through training and hiring staff with more diversified PPP expertise (e.g. in different industries).

(7). Cost-benefit analysis, Risk assessment, and VFM :

These tools used to assess the PPP project over its life cycle taking into consideration all substitute types of delivery (e.g. concessions, divestiture, management and service contracts), and whether it's financial or non-financial (e.g. sustainable development). The assessment should include the degree to which expenses can be recovered from consumers, and in shortfall cases, what is the other financial resources could be used.

The risk assessment is essential to be determined based on the public concern, taking into consideration that shifting too much risk on to the private sector may cause higher prices for consumers to equalize that risk.

The preparation and procurement of PPP projects is more complex and costly than publicly procured infrastructure projects. That's why conducting the VFM test by the PPPCU is very important to assess whether this project is feasible or not in the future.

(8). Tender invitation and Risk allocation :

The public sector should clarify its position on financial and macroeconomic risks (inflation, interest rate, and exchange rate), especially when issuing invitations to tender.

As for the exchange rate risk, the public sector should compensate the private sector in foreign cost.

For the inflation risk, the public sector needs to adjust payment as assessed by regular market price rather than a general price inflation adjustment.
For the interest rate risk, the public sector could impose it when the only option for the bidder is local currency funding.

(9). Governorates contribution in the project procurement :

Nowadays, the governorates in Egypt only work in identifying the infrastructure needs, It's recommended also to make it work in helping the government in the project procurement, and more involvement in the PPP process. On the other side, the government can apply (The Balanced regional development analysis), the same like in the Korean PPP experience, and the governorates can guide the government by its statistics in the analysis to determine the regions that need to be improved in Egypt.

(10). Enhance some of the PPP legislations :

"Administrative contracts are based on the concept of good faith. If a government body chooses to terminate a contract on the basis of public interest, compensation should be granted to the private contracting party. Furthermore, amendments caused by the government entity should not alter the financial equilibrium of the contract, or the other party may have the right to terminate the contract. These principles are important guarantees of stability to the private contracting party.
Another critical point is that, outside the 2006 strategy, the law does not provide for all forms of PPPs. It does not, for instance, include BOO contracts. This runs counter to the government's own objective, stated in the 2006 strategy document, of developing a clear legal framework for all forms of private involvement."[25]

Finally, the researcher can conclude that Egypt should not apply PPP experiences of other countries as they are. Instead, these experiences should be absorbed in order to generate adequate laws that would fit the local market.
From the Egyptian experience, it's shown that there was a resistance to the PPP model in Egypt, since the model represents a change from conventional models.

So if Egypt wants to flourish its PPP and make it successful in the future, it's so important to strengthen the political support through the new government after the elections. Also ensuring VFM, policy framework, capacity within government, durable working relationship between public and private, clear specification on terms and conditions in the PPP contract, develop action plan to overcome obstacles and key impediments, acquire academic aspects of PPP project structuring, enhance strategies and setting

[25] MENA-OECD. "Policy Assessment in Egypt: Privatization Policy and Public Private Partnerships." Business Climate Development Strategy (2010).

capabilities of team members, act as a centre of expertise on a national and regional basis, and provide the ownership for PPP projects amongst both public and private sectors.

CONCLUSION

According to Darryl Murphy, The associate partner, Global Infrastructure, KPMG, UK : "The Egyptian program was very ambitious and that no country in the region had such a developed PPP program like Egypt." (*Round-table Discussion on PPP, BEBA, 2010*).

Egypt's legal system is one of the most highly developed in the Middle-East region. Despite the current political turmoil in Egypt, the relatively macroeconomic environment places the country in a sympathetic position to maintain developing its PPP program. Sustained economic growth, a controlled fiscal position and foreign debt outstanding in relative to GDP will give confidence to the investors regarding the capability of the Egyptian government to entrust to PPP concession payments for PPP projects.

One of the most key attraction for foreign investors to Egypt is the comprehensive security package given to the investors in PPP projects, such as typical pledges over shares, mortgages and the assignment of insurance proceeds provided to foreign investors.

Another reason for the attraction of foreign investors to Egypt is the absence of financial and legal restrictions included in contracts with the public sector, which means that foreign companies investing in Egypt are treated on an equal basis as local companies under the Egyptian PPP law.

The accessible limited resources available for the PPP should be concentrated on social smaller or medium sized, well defined, and essential infrastructure. Also focusing on straightforward projects in sectors like waste water treatment plants, power plants, or road projects, beside avoiding the large and complex projects.

A positive market reputation will be established and more ambitious deal-flow can be assured, once the PPP strategy for these sectors achieved.

Although the GOE has not implemented an official policy on project prioritization, the successful experiences with the PPP can be shown in developing sustainable pipeline of well-designed projects concentrating on certain sectors which will serve to magnetize domestic and international investors to the Egyptian PPP market.

Finally, Egypt needs to move quickly to remove the barriers that prevent, or discourage private investment in basic services such as water, electricity, gas, waste management, road building and

transportation. Failure to act is retarding development, arresting social change and threatens to jeopardize the positive results of privatization in other sectors.

Now the well-known agreement that the dependence on the government isn't viable, and the full dependence on private sector only won't generate the most favorable results, while the best emergence of the PPP concept happens when both the government and private sector work jointly for the development of high quality infrastructure.

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APPENDIX

Survey

Master Degree Thesis:

The Assessment of Public Private Partnership Program in Egypt: A Comparative Study with the Korean Model

KDI SCHOOL OF PUBLIC POLICY AND MANAGEMENT | MPP/ED *2011*

Introduction:

I'm a master degree student in KDI School of Public Policy and Management, Seoul, South Korea. I'm conducting research relative to the Egyptian PPP, and this survey conducted for thesis research on (The Assessment of Public Private Partnerships Program in Egypt: A Comparative Study with the Korean Model).

Survey Privacy Statement:

You were selected based on a random sample as one of the operational PPP projects in Egypt.

I need your opinion about many important issues involving the PPP performance in Egypt. Without the opinions of people like you, many of these key issues in this survey will likely not be resolved.

This is to inform you that this survey is strictly for thesis research work. The information provided by you will be kept confidential and will not be used for any other purposes and no individual will be identified within the data.

Additionally, You can direct any questions about this survey directly to me, please contact me at :
(002) 010-1622-3955 , or my e-mail : alimatef@yahoo.com

Also, I will be happy to notify you a summary and the findings of the survey.

Research Objectives:

The purpose of this research is to assess the Egyptian PPP performance and benchmark it with the Korean PPP model, taking into consideration that the Korean case is one of the standards or the best practice model, as the use and development of PPPs in Egypt is presently in a phase of break through, and the prior years of the PPP in Egypt was characterized by many minor initiatives on a lower administrative level, but in 2006 a task group was established on governmental level. The GOE adopted a new long-term policy of tracking partnerships with the private sector to enlarge and enhance the country's infrastructure investments.

This thesis aims to study the development of the PPP in Egypt and South Korea. Through a delimitation of PPP compared to the more widespread concept of public private cooperation the fundamental idea and the basic organization and structure in the PPP is investigated including frame conditions and applied models.

Survey Questions

Section 1 : General Information :

Your name :

Your Age :

Your Organization :

Your Position :

Your division :

How long have you been working in this organization ?

(1.1) Which organization do you work for ?

○ Private Sector ○ Public Sector ○ PPP Unit

(1.2) Community or district Size that you are living in :

○ Large (More than 5 million) ○ Mid - Size (From 3 to 5 million) ○ Small (From 1 to 3 million) ○ Very Small (Less than 1 million)

Section 2 : Egyptian PPP

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We see a lot these days about the need for new or improved roads, hospitals, schools, public transit systems, safe water systems, supplies of electricity and so on. Please tell me your opinion about each of the following questions :

(2.1) Did you know about PPP earlier ?

○ Yes ○ No

(2.2) Do you think that the private participation in the PPP projects is efficient ?

○ Strongly Agree ○ Agree ○ Neutral ○ Disagree ○ Strongly Disagree

(2.3) Governments are having trouble keeping pace with demands for certain types of services (roads, hospitals, schools, public transit systems, safe water systems, supplies of electricity and so on).
After the revolution, It is time to allow the private sector more to deliver these types of services in partnership with government

○ Strongly Agree ○ Agree ○ Neutral ○ Disagree ○ Strongly Disagree

(2.4) Do you support private-sector involvement in the following specific areas :

1. Public hospitals	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
2. Roads	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
3. Public water treatment facilities	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
4. Public sewage treatment facilities	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
5. Public recreation facilities	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
6. Public transit systems	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
7. Electricity and delivery to homes or businesses	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer
8. Public schools	☐ Design	☐ Build	☐ Finance	☐ Operate	☐ Maintain	☐ Transfer

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(2.5) Do you think that the PPP in Egypt satisfies the government perspective ?

○ Very Satisfied ○ Satisfied ○ Neutral ○ Unsatisfied ○ Very Unsatisfied

And why ? ----------

(2.6) What is your satisfaction level with the performance of BOT projects in Egypt ?

○ Very Satisfied ○ Satisfied ○ Neutral ○ Unsatisfied ○ Very Unsatisfied

(2.7) Do you think that the BOT projects in Egypt improve Value For Money ?

○ Very Positive ○ Positive ○ Neither ○ Negative ○ Very Negative

(2.8) How do you find the Egyptian PPP Central Unit (PPPCU) performance ?

○ Very Satisfied ○ Satisfied ○ Neutral ○ Unsatisfied ○ Very Unsatisfied

Section 3 : Egyptian's Key Performance Indicators

(A) Costs and Affordability:

A1. PPP procurement delivers overall cost savings in comparison to conventional procurement.	○ Never	○ Rarely	○ Sometimes	○ Often	○ Always
A2. Cost savings can be assessed with reference to factual data, rather than through comparisons with the assumptions used in the Public Sector Comparators.	○ Never	○ Rarely	○ Sometimes	○ Often	○ Always
A3. The various PPP implementing agencies are able to afford project transaction costs.	○ Never	○ Rarely	○ Sometimes	○ Often	○ Always
A4. PPP transaction costs are subsidized in Egypt	○ Never	○ Rarely	○ Sometimes	○ Often	○ Always
A5. High transaction costs are a major constraint for faster deal flow.	○ Never	○ Rarely	○ Sometimes	○ Often	○ Always

(B) Project Management:

B1. The slow deal flow for PPP projects in Egypt is due to capacity constraints in provincial governments and municipalities.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
B2. Lack of or an inadequate project management approach slows down the implementation of PPP projects.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

(C) Awareness and Training:

C1. Lack of PPP training and awareness hamper PPP growth and development.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
C2. The level of PPP awareness and training is adequate in Egypt.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

(D) Budget:

D1. The use of PPPs delivers benefits due to budget restrictions in the public sector capital budgets.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
D2. PPP procurement brings forward investment and / or ensures that optimal maintenance strategies are followed.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

(E) Risk Transfer:

E1. Successful PPPs require existence of an adequate risk management system for appropriate transfer of risks to the party best suited to manage it at least cost.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
E2. PPP risk management training and awareness is necessary to ensure that project risks are adequately identified and mitigation strategies are followed.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
E3. Risk is transferred in practice.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
E4. It is always clear where risk lies in a PPP project.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

E5. There is evidence of contractors or customers seeking to shift risk onto the other party after signing the contract.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
E6. Allocate and sharing risks between the public and private sector is fair and suitable.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

E7. Which from the following are the risks faced your PPP project ?

☐ Technical ☐ Construction ☐ Operating ☐ Revenue
☐ Regulatory / Political ☐ Environmental ☐ Financial ☐ Force majeure

(F) Policy and Regulation Framework:

F1. Existence of an effective and sustainable legal and regulatory framework is essential for promoting and fostering successful PPPs.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F2. A credible legal and regulatory framework exists in Egypt for the implementation of PPP projects.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F3. The government is committed to private sector participation in infrastructure development and service delivery through PPPs.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F4. The existing policy framework environment supports open market access and fair PPP competition.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F5. PPPs protect public interest and maximize value added for projects.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F6. The existing investment climate in Egypt promotes a viable and sustainable PPP project system.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F7. The current PPP guidelines in Egypt provide adequate opportunity to assess the most effective type of PPP for a given project.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F8. The policy environment favors PPP growth in Egypt.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F9. Policies relative to PPPs are consistent with other government policies i.e. land use, social	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

policies etc.					
F10. There is sufficient legislative authority for entering into PPP agreements.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree
F11. Existing PPP regulations and guidelines are efficient and effective mechanism for PPP transactions and auditing in Egypt.	○ Strongly Disagree	○ Disagree	○ Neutral	○ Agree	○ Strongly Agree

Section 4 : Korean PPP

(4.1) Have you ever heard about the success stories of Korea's PPP projects ?

○ Yes ○ No

(4.2) (*If YES)*, Do you think the Korean PPP Scheme would work in Egypt without any alterations ?

○ Yes ○ No

Acknowledgement

I would like to highly appreciate your participation in my survey. Thank you so much for your time and for sharing your opinion.

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Map of Egypt

Location of Egypt

Map of South Korea

Location of South Korea