

Paving the Way for PPP's to Infrastructure Projects in Iraq

Prof. Dr. Angham Alsaffar Engineering Collage-Baghdad University anghamalsaffar@yahoo.com Teaching assistant Meervat R. altaay Engineering Collage-Baghdad University meervat3@yahoo.com

ABSTRACT

The political situation experienced by Iraq before the events of 2003 that led to the collapse of infrastructure. rebuilding costs were estimated after 2003 by187(million USD) according to the estimates of the basic needs as stated in Five-Year Plan 2010-2014. The difficult in financing projects and the continuous demands for maintenance and operating cost, and working by contemporary styles in different countries, the strategic option is to adopt the government entering the private sector as a partner in the development process. Since public _private partnership (PPP's) is at a germinating stage of development in Iraq, it has been studied the critical success factors(CSF's) in the experiences of countries that have implemented the style (PPP's) in infrastructure projects which can be ensured or controlled in some way and in the effective management of those already embarked upon . It should pave the way for enhanced decision making in the choice of suitable projects. The mainly aims of this paper are:

- 1- To highlight the importance and need of PPP's contracts in Iraq.
- 2- Establishing a model of CSF's for infrastructure projects in Iraq. collected (87)success factors which characterized by the state directly in PPP's projects consists of (8)main criteria(Privatization and investment Policy, Economical, Legal and political, Financial and commercial, Administration and organizational, Social and environmental, Technical and Support, motives and guarantees of government) and found out (40) CSFs among them through questionnaire experienced in these projects to work to assess the standards and compare them and come to decisions by the decision maker, and therefore have a database of views experienced for use in other projects.

Keywords: public private partnerships (PPP's), infrastructure projects, investment tendencies critical success factors (CSF's), decision making

الخلاصة

بسبب الاوضاع السياسية التي مر بها العراق قبل احداث 2003، والتي ألت الى انهيار البنى التحتية، تقدير تكاليف اعادة الاعمار بعد عام 2003 بـ187 مليار دولار, وفقا لتقديرات الاحتياجات الاساسية كما ماورد في الخطة الخمسية2010-2014 في ضوء هذه المتطلبات المتزايدة ومايصاحب ذلك من صعوبات في تمويل هذه المشاريع والتكاليف المستمرة للتشغيل والصيانة وعملا بالاساليب الحديثة في مختلف بقاع العالم،فان الخيار الاستراتيجي هو تبني الحكومة دخول القطاع الخاص كشريك في عملية التنمية تعتبر تجربة مشاركة القطاع الخاص للعام (PPP's) في العراق ضمن مرحلة النمو, فقد تمت دراسة عوامل النجاح الحرجة في تجارب الدول التي طبقت اسلوب g'PP' في مشاريع البنى التحتية والتي من الممكن ان توفر بصورة افضل تاثيرا اكبر على نجاح مشاريع الشراكة والتي من الممكن ان تضمن ان تضمن او تسيطر على الادارة الفعالة لنجاح هذه المشاريع لاجل تمهيد الطريق لتحسين اتخاذ القرارات المتخذة لاختيار المشاريع المناسبة التي من المكن ان توفر بصورة افضل تاثيرا اكبر على نجاح مشاريع الشراكة والتي من الممكن ان تضمن او تسيطر على الادارة الفعالة لنجاح هذه المشاريع لاجل تمهيد الطريق لتحسين اتخاذ القرارات المحذة لاختيار المشاريع المناسبة التي من التحالة لنجاح هذه المشاريع لاجل تمهيد الطريق لقصرية القرارات المتخذة لاختيار المشاريع المناسبة التي من الفعالة لنجاح هذه المشاريع لاجل تمهيد الطريق لتحسين اتخاذ القرارات المتخذة لاختيار المشاريع المناسبة التي من المكن ان تنفذ بهذا الاسلوب بتضمن اهداف البحث بصورة رئيسية, مايلي:- 1- ابراز الاهمية المطلوبة لادخال مشاريع البنى التحتية تحت نمط مشاركة القطاع الخاص للعام (PPP) في العراق. 2- تاسيس نموذج لعوامل النجاح الحرجة لمشاريع البنى التحتية في العراق. اذ تم جمع (87) عامل من العوامل الاساسية التي يجب ان تتميز بها الدولة للمباشرة في مشاريع المشاركة مقسمة الى (8) معايير رئيسية (سياسة الاستثمار والخصخصة، اقتصادية،قانونية وسياسية مالية وتجارية إدارية،اجتماعية وبيئية،تقنية وفنية ومعايير الدعم والحوافز الحكومية) واستنتاج (40) عامل من عوامل النجاح الحرجة من خلال معرفة مقدار الاهمية لهذة المعابير الرئيسية وترتيب اولوياتها من خلال استبيان ذوي الخبرة في هذه المشاريع لعمل التقييم والمقارنة بينها والخروج بالقرارات بواسطة متخذ القرار وبالتالى يكون قاعدة معلوماتية لاراء ذوي الخبرة للاستفادة منها في مشاريع اخرى.

1. INTRODUCTION

The criticisms of the traditional method of procurement are known and documented in many literatures and researches. Such issues include delay in time, cost overrun, lack of single point responsibility, tendency to adversarial relationships, lack of utilization of construction knowledge, backwardness in innovation, among others. The private sector in the world is increasingly getting more involved in the provision of public infrastructure and services across a wide range of industries and sectors in order to alleviate the spending on governments' budgets.

Over recent years the interest in adopting public private partnerships (PPP's) has increased internationally. Many research studies have presented positive reasons for the governments and the private sector to welcome this form of procurement, rather than continue adopting the traditional options. A PPP's can provide a number of benefits to the public sector such as:

- 1. Speedy, efficient and cost-effective delivery of projects;
- 2. Creation of added value through synergies between public sector and private sector, in particular, through the integration and cross-transfer of public and private sector skills, knowledge and expertise;
- 3. Alleviation of capacity constraints and bottlenecks in the economy through higher productivity of labor and capital resources in the delivery of projects;
- 4. Competition and greater construction capacity;
- 5. Accountability for the provision and delivery of quality public services;
- 6. Innovation and diversity in the provision of public services; and
- 7. Effective utilization of state assets to the benefit of all users of public services.

2. IRAQ INVESTMENT TENDENCIES AFTER 2003

Encouraging private sector for the good deed in economical development will reduce the burden left on state shoulders and will contribute to attract more unemployed hands through achieving more economical bases variations. After the 2003 war, several laws went into effect improving Iraq's business environment and changed the legal regime attracting foreign investment and allowing foreign investors national compliant treatment. The following are the Iraqi investment tendencies after 2003.:-

2.1 Constitution of Iraq 2005(al-Waqā'i 'al-'Irāqiyah,2005)

The most important state investment tendencies in Iraqi new constitution(2005) which concerns with these issues that comes in the constitution articles with direct touching in organizing the economical affairs ,which concentrate on the investment issue especially in the following:

Article 112-second: Refers to (depending on new marketing technical principle encouragement of investment, because by changing the economical order from socializing to capitalizing and encourage the adventure towards marketing economics spontaneous stricter through the offer and demand ways).

Article 111: Oil and gas dominated by the Iraqi people to all regions and governments; the fortunes is owned by the government to people; the state view has changed in possessing the natural fortunes from the state possessing to people possessing.



Article 25: Iraqi state guarantees reforming its economic according the modern economical foundation, which ensure its full sources investment, varying its sources, encouraging special sector and developing it.

Article 26: Iraqi state guarantee encouraging investment in different sectors, and organized by law, the investment will be according to marketing economics, so that the state will take the investment supporting role which will complete through especial sector not the investor role.

Article 23: The special possessive reserved by low and the owner has the right to get benefit by his possessing and uses it and disposal it.

Article 23-second: It is impossible to take the property dispossess of the owner by force except in general benefit (public fair) benefits in opposite to fair compensation.

Article 23- third: Iraqi has the right to possess any thing every where in Iraqi land.

Article 24: Special and local education is guaranteed and organized by role.

2.2 Iraqi Investment law I.I.L(, al-Waqā'i 'al-'Irāqiyah,2006)

Iraqi parliament gives the agreement on the (I.I.L) NO.13 2006 on October, and becomes valid from January 17-2007, this law encourages both local and foreign private investors to invest in the country and which protects investors' property rights. The investments do not include investment less than 250 000 USD and awards fundamental privilege and guarantees include:

- 1. Exempts approved investment projects from certain taxes and fees for at least 10 years;
- 2. Allows investors to repatriate investments and profits from investments ;
- 3. Allows investors to rent or lease land for the whole period of an investment project,
- 4. Allows investors to insure projects with any national or foreign insurance company;
- 5. Permits investors to open accounts in Iraqi or foreign currency or both at Iraqi banks or at banks outside Iraq.

2.3 International convention action with Iraq(2007)

In May 3rd _2007 the prime minister (Noori Almaliki) has released and the united nation secretary general (Ban Q Mun), the international convention action with Iraq in Sharm Alsheikh, this convention is an action released by Iraqi government aims to hold new partnership between Iraq and international community, the purpose of this action to achieve national vision to Iraq aims to support peace and to achieve political, economic and social development through coming five years, it has been taken the investment and reformation program in details. the aims of the development of private sector and encouraging investment are:

- 1. To create a suitable environment for private investment and to find work chances.
- 2. To confirm sovereignty of law in financial and commercial fields.
- 3. To develop the justice system and law abilities in this field to ensure protection for private ownership and credibility of contracts.
- 4. To a plicate investment law and to issue and a plicate a new commercial law.
- 5. Improve and facilitate establishing commercial works, workers employment property registration, gaining loans, dealing with license and over boarders' trade, ,
- 6. Improving finance for private sectors, especially for small and medium companies. Including loans assurances, good aspects of finance including small and medium companies ,
- 7. Listing lawful texts within the legislation and instructions of general contracts to encourage public private partnership.
- 8. Joining the economical cooperation and investment organization for Middle East and North Africa which are interested in private sectors and encouraging investment.



2.4 National development strategy in Iraq (2010-2014)

It displayed the preferences strategies to rebuild and develop Iraq, we fixes the goal for the purpose of achieving the fundamental national view in regaining Iraq its suitable rank in the international community as continental economical flourish power, opened on all marketing economics. Under chapter 11, the Objectives and Means of Achieving the vision "An interactive, participatory, and competitive private sector that supports sustainable growth, are:-

Objective1: Enhancing the Private Sector's Developmental Role:

- 1. Increasing its percentage contribution in gross domestic product generation and capital formation.
- 2. Increasing its percentage contribution in job creation by the scope of the private sector.
- 3. As private sector savings are key sources for funding plan projects,
- 4. Making the private sector a source for diversification of commodity supply using the method of private integrated industrial Complexes.

Objective2: Partnership between the Private and Public Sectors:

- 1. Determining the forms of partnership and choosing the most appropriate,
- 2. Legislating and activating a privatization law.

3. Establishing support for technological projects and expanding their adoption.

Objective3: Promoting an Environment that Encourages Investment:

- 1. Adopting flexible policies that respond to local and international economic changes.
- 2. Expanding establishment of economically feasible shareholding companies
- 3. Completing the law and regulation system that supports the private sector and the economy
- 4. Developing banking systems, capital markets, and lending plans
- 5. Updating economic regulations that support a market economy,
- 6. Relying on transparency as the basic premise for building the investment relationship between the private sector and the state

7. Developing the government institutions' capabilities,

Objective4: Privatizing of Public Sector Projects

- 1. Developing the Iraqi stock market from an administrative, technical, and technological perspective.
- 2. Instituting a flexible and transparent privatization law that protects state and worker rights,
- 3. Offering stocks for public subscription,
- 4. Providing workers with a portion of the shares of the companies sold

Objective5: Developing the Banking Systems and Supporting Financial Institutions

- 1. Liberating interest rates and exchange rates and reducing restrictions on the flow of capital
- 2. Developing financial risk management technologies and systems to mitigate the impacts of said financial risk
- 3. Revitalizing private banks to promote the effectiveness of the private sector's financial transactions
- 4. Strengthening banking systems' technical and guidance roles to provide support and financial advice to private sector investors.

Objective6: Developing the Private Sector's Competitive and Export Capabilities

- 1. Examining potential export markets and creating a database thereof
- 2. Completing the export infrastructure consisting of cold storage, cargo shipping...etc,
- 3. Focusing on quality, packaging, and marketing,
- 4. Orchestrating extensive marketing campaigns in regional and international markets,
- 5. Developing business partnerships with the various economic blocs to enhance trade,

Objective7: Strengthening the Private Sector's Role in Regional Development



- 1. Distributing roles between the state and province on the one hand, and the private sector on the other hand
- 2. Promoting decentralization in the management of development facilities,
- 3. Activating the private sector's role in developing slow-growing provinces,
- 4. Encouraging the private sector to participate in province development plans.

2.5 Infrastructure law in Iraq

The draft has been put in 2009 in order to do the strategic projects execution like (ports, hospital and rebuilding the establishment and substructure of vital projects) which effect on social and economical life .The costs of achieved projects must be paid for the execution companies during not more than five years from handing the project over date, or any agreed period not less than five years .in order not to bear debts of the execution projects the law limits of sum of the contracts by 70000 million dollars .establishing the infrastructure raise the projects economical value, which represent their production and their services an opening to infrastructure projects and to the projects stand its production on the services which supplied by the infrastructure.

Never the less this law does not appear for reasons for other side concerning:

- 1. Open the corruption and wasting funds.
- 2. Drowning Iraq into debts.

The international development studies center reveal (in London)that infrastructure law in Iraq will contribute to increase the Iraqi exhausted economy burdens with debts and interest without any guarantees protect Iraqi people development rights.

3. INVESTMENT ENVIRONMENT CHALLENGES IN IRAQ

In spite of present investment environment distinguished, especially by investment law (2006), containing many of necessary motives, but the challenges still face the investors are:-

- 1. inflexibility of administration state in required interaction and the absence of working by one window, in addition to that ,there are miscellaneous items approved represented by discovering administration
- 2. Weak commercial banks, which could by high flexibility fast responsibility for investment requirement in addition to weak of insurance companies presence.

These factors contribute to make the investment environment weak comparison with other countries. When we review to surveying have done by international bank 2014 (doing business in Iraq) see **Fig.1**.The World Bank ranks Iraq 166th out of 183 countries in its "Doing Business 2011" behind even Haiti and Zimbabwe to 151th out of 189 countries in its "Doing Business 2014", and thus still indicates a very serious situation.

In particular, survey of the ease of doing business around the world, the worst ranking of any country in the Middle East., Iraq ranked 128th globally in terms of "protecting investors" and 142th in "enforcing contracts". The World Bank scored it 4.3 out of 10 on its "strength of investor protection index". The survey notes that court proceedings to enforce contracts in Iraq require 51 procedures taking an average of 520 days. By contrast, Singapore, which topped the global ranking, requires 13 procedures, which take 150 days. So we found the survey solution reflects the high hard degree in using economical activities.

Table1.showing the ranking of Iraq according to mainly ten index about starting business, Where the government administration incapable to create a suitable and encouraging circumstances to bring qualified businessmen and contractors.

It is noteworthy to compare Iraqi investment environment and ranks relative to comparator economies and relative to the regional average, see Fig. 2, by using the economic survey data which presented by The International Bank for Reconstruction and Development, international



bank,2014.we found a big difference refers to that Iraq relatively represent a difficult investment environment.

4. SITUATION OF INFRASTRUCTURE FACTS IN IRAQ

In 2010, after the new investment law was passed the private finances including investment contracts in some major infrastructure and residential projects were estimated over \$40 billion in all sectors see Fig.3. Since 2009 Iraq has attracted investments worth \$23 billion, National Investment Commission,2009.

Dr. kamal (Iraq institute for economic reform) has revealed in practical study including public sector during 2007, the negative effective factors in retardation of execution, we found in **Table2**.schedule number of factors, for example 91% of state administrations think that the negative effective factor is the late to prepare the site for working commencement. Dr. kamal has perform two studies once in 2008,and the other 2011, which the images doesn't differs so much than 2008 but many details about worse execution matters embodied by the following:-

A- outer factors (the factors don't affect on foundation disability) : represented by

- 1.security circumstance influences
- 2. supervision foundations standard obstacles,
- 3.absence of infrastructure projects
- 4.general budget agreement delay
- 5.Inflexible rules and arrangement.
- 6.Law domination weaker because of exceptional circumstances of political operation faces.
- B- Interior factors (specialized by productive foundation for services) ,this factors lead to project delay and in consistency. Represented by:
 - 1.Good leader ship required weakness implementation (decision making transparency, Depending on adequate (qualified person), Remote planning etc).
 - 2. The weakness leadership reflects on technical knowledge not being found in project administration, like tender opening and analysis commission, resident engineer's directorate, disability of technical as measuring devices and laboratories..
 - 3.Responsibility inducement absence and complication of administration central systems.

C- Complementary working weakness factors between different foundations. Coordination factors between different estate administrations. Its include for example:

1. Weakness cooperation between government administrations concerning the land designation.

- 2. Weakness of financial allowances decisions (ministry of planning).
- 3. Weakness of paying government allowances(ministry of financial)

4. Opening LC(Central Bank and Iraqi commercial Bank).....etc

Rebuilding costs were estimated after 2003 by 187 billion USD for the period 2010_2014 according to different economical sectors essential needs which represent maximum standard for required investment in rebuilding and saving citizen fundamental needs ,they distributed as they come according to fifth plan(2010-2014) in the following schedule, It is distributed in **Table 3**.

Through a historical look, and in light of government obligations toward inflated operating expenses, particularly in terms of the magnitude of salaries, pension payments, and expenses pertaining to security and price subsidies, the public budget can allocate what corresponds to 30 percent of these revenues to investment spending, i.e., 117,119 billion dinars or US\$100 billion. See **Table 4**.

The magnitude of investment needed to achieve the plan's target growth rate of 9.38 percent annually is 217,637 trillion dinars, or US\$186 billion. It is anticipated that development partners (the domestic and foreign private sector) will fund US \$86 billion, which will be spent in the



various fields specified by the plan, as well as other activities not set forth in the plan such as insurance, banks, and other personal services. See **Table 5**.

Government investment as well as domestic and foreign private sector investment will contribute to executing the plan's aggregate and objectives. Specifically, the government will contribute 53.7% of investment, with the foreign and private sector contributing 46.2% of investment during the years of the plan.

According to what is presented and working by contemporary styles in different countries. the Strategically chosen for rebuilding and rehabilitating the infrastructure projects in Iraq is adapted by PPP's contracts to public sectors in accordance of it, the public sector partner (regulator) agreed with private sector partner (provider) to execute the infrastructure projects according specification and limited period of time. It is necessary to use this type of contracts to develop private and public sectors inside the form of harmony (twin) between local sector and foreign sector.

5. PPP's CONTRACTS

5.1 PPP's definition

No universally acknowledged and convincing definition of PPP's exists. One cause lies in the complexity, multi-dimensionality and changeability of the concept , **Ziekow,2008.** Accordingly, various definitions are very global and embrace all forms of co-operation between public and private actors, **Ulli Arnold,2011.**

According to International Monetary Fund, **IMF**, **2004.** public-private partnerships (PPP's) refer to arrangements where the private sector shares the risks by supplying infrastructure assets and services that traditionally have been provided by the government, see **Fig.4**. Partnership is a means of mobilizing the energies and talents of diverse sector of society to bring about social and economic transformation. The inter-sectoral collaboration between government, the business sector and civil society is based on the premises that partners have distinctive assets that can be combined in a more productive manner to find long lasting solutions to complex problems, **Fourie, 2006.**

5.2 PPP's forms

The World Bank and PPIAF Private Participation in Infrastructure (PPI) Project database is divided into sectors as follows ,World Bank, 2012.:

- Energy (electricity and natural gas)
- Telecommunications
- Transport (airports, seaports, railways, and toll roads)
- Water and sewerage (treatment plants and utilities).

Within these four sectors, the database identifies four types of projects: management and lease contracts, concessions, green field projects, and divestitures. and identifies sub-categories for each of the four types of projects- the World Bank classification is depicted in **Table 6**.

1-Management and Lease Contracts - A private entity takes over the management of a stateowned enterprise for a fixed period while ownership and investment decisions remain with the state. There are two subclasses of management and lease contracts:

- Management contract The government pays a private operator to manage the facility. The operational risk remains with the government.
- Lease contract The government leases the assets to a private operator for a fee. The private operator takes on the operational risk.



2-Concessions - A private entity takes over the management of a state-owned enterprise for a given period during which it also assumes significant investment risk. The database classifies concessions according to the following categories:

- Rehabilitate, operate, and transfer (ROT): A private sponsor rehabilitates an existing facility, then operates and maintains the facility at its own risk for the contract period.
- Rehabilitate, lease or rent, and transfer (RLT): A private sponsor rehabilitates an existing facility at its own risk, leases or rents the facility from the government owner, then operates and maintains the facility at its own risk for the contract period.
- Build, rehabilitate, operate, and transfer (BROT): A private developer builds an add-on to an existing facility or completes a partially built facility and rehabilitates existing assets, then operates and maintains the facility at its own risk for the contract period.

3-Greenfield Projects - A private entity or a public-private joint venture builds and operates a new facility for the period specified in the project contract. The facility may return to the public sector at the end of the concession period. The database classifies Greenfield projects under the following categories:

- Build, lease, and transfer (BLT): A private sponsor builds a new facility largely at its own risk, transfers ownership to the government, leases the facility from the government and operates it at its own risk up to the expiry of the lease. The government usually provides revenue guarantees through long-term take-or-pay contracts for bulk supply facilities or minimum traffic revenue guarantees.
- Build, operate, and transfer (BOT): A private sponsor builds a new facility at its own risk, operates the facility at its own risk, and then transfers the facility to the government at the end of the contract period. The private sponsor may or may not have the ownership of the assets during the contract period. The government usually provides revenue guarantees through long-term take-or-pay contracts for bulk supply facilities or minimum traffic revenue guarantees.
- Build, own, and operate (BOO): A private sponsor builds a new facility at its own risk, then owns and operates the facility at its own risk. The government usually provides revenue guarantees through long-term take-or-pay contracts for bulk supply facilities or minimum traffic revenue guarantees.
- Merchant: A private sponsor builds a new facility in a liberalized market in which the government provides no revenue guarantees. The private developer assumes construction, operating, and market risk for the project.
- Rental: Electricity utilities or governments rent mobile power plants from private sponsors for periods ranging from 1 year to 15 years. A private sponsor places a new facility at its own risk, owns and operates the facility at its own risk during the contract period. The government usually provides revenue guarantees through short term purchase agreements such as power purchase agreement for bulk supply facilities.

4- Divestitures - A private entity buys an equity stake in a state-owned enterprise through an asset sale, public offering, or mass privatization program. The database classifies divestitures in two categories:

- Full: The government transfers 100% of the equity in the state-owned company to private entities (operator, institutional investors, and the like).
- Partial: The government transfers part of the equity in the state-owned company to private entities (operator, institutional investors, and the like). The private stake may or may not imply private management of the facility. These would not be PPPs as defined in this paper.



6. JUSTIFICATION OF PPP's IN IRAQ

We may limit these justifications as following:

- 1. The accelerating technical and economic changes which provide an opportunity for the reduction of the costs of projects.
- 2. The increasing pressures of competition and the reduction in the rates of growth.
- 3. The limitations on the financial, human resources and technology available to the public sector, in view of the multiplicity of spheres and projects which are in need of implementation.
- 4. The limitation of the financial resources allocated for social development programs, and the demands of citizens for improving the services offered by governmental institutions.
- 5.To increase the effectiveness and capabilities through adopting the principle of comparative advantage and the rational division of labor.
- 6. To support the partners by affording they complete solutions required by the nature of the problems.
- 7.To enhance decision making in the service of the public interest.
- 8. To achieve a higher value on the invested capital .

7. REQUIREMENTS OF SUCCESSFUL PARTNERSHIP FOR INFRASTRUCTURE

For countries that are new at adopting PPP's, it is even more important for them to identify the success factors in order to maximize the advantages of this method and to reduce the risks for all parties. The concept of 'Critical Success Factors' (CSF's) was first introduced by Rockart 1979, **Dada,2012.**CSF's are 'those few key areas of activity in which favorable results are absolutely necessary for a particular manager to reach his or her own goals'. Critical success elements are significantly important to help firms or organizations to identify key factors that firms should focus on in order to be successful in a project **,Hardcastle ,2005.**

Some researchers have been conducted to identify CSF's for project success using quantitative measures of various factors. However, these factors are only confined to the project management efforts. The same approach also cannot be adopted to cover intangible factors or be used when hard performance data are not available. Alternatively, CSF's have also been identified using expert opinions. The impact of experience possessed by project key personnel toward project outcomes has been widely recognized. A comprehensive literature review to identify the CSF's of PPP's has been conducted. Relevant published literature including textbooks, research reports, journal articles, conference papers, and internet materials were reviewed thoroughly. **Table 7**, shows a summary of the analysis of these pieces of literature.

7.1 CSF's for infrastructure projects under PPP's model

To assessing CSF's for the viability of government component includes 87 significant decision factors shown in **Table 8**, grouped and classified according to relevance under eight main criteria including (Privatization and investment Policy ,Economical ,financial and commercial, legal and political, social and environmental, technical, administration and organizational and support and government incentives).

7.2 Identification CSF's for infrastructure projects under PPP's model in Iraq

A questionnaire was designed to acquire different views about the CSF's. The respondents (46) person, include government sector, private investors, and academic experts who have engaged in the PPP's projects. Experts' respondents were requested to rank these factors for success the implementing of PPP projects according to a five-point Likert scale (1 = Least Important and 5 = Most Important). By using statistical program (**IBM/SPSS,V20**), the researcher analyzed the questionnaire answers within three steps:



- **1-** Making arithmetic average for factors then arrange them according to their importance.
- **2-**Having the general average for factors importance according to the analysis of the questionnaire.
- **3-** Limited importance and Significance indexes for factors.

The evaluation results were shown as **Table 8**. Delete those factors whose significance indexes values are less than 60% and the factors left are critical success factors. For the particular study, The researcher taking the most important five ranking factors in order to inviting government obligation to fulfill these aims and discussing the briefing description of CSFs

7.3 Brief description of CSF's

This paper has attempted to summarize the main issues surrounding the development of PPP's initiatives for infrastructure projects, and has highlighted the necessary structuring principles to strengthen the identification and analysis of that type of projects. Basing on the characteristics of CSFs for infrastructure projects under PPP's model and the viewpoints of experts during the questionnaire of this study, the priorities of CSF's in PPP's model have ranked as a key issues in five ranking under eight main criteria, are:

1- Privatization and investment Policy criteria

The government must be clearly obliged to words PPP's in development of infrastructure services. The government controls many of necessary success factors of infrastructure projects under PPP's. Nobody can participate or investor or borrower unless it without depending on the inviting government which is fixed all the project period.

the most important five Privatization and investment Policy criteria factors which The inviting government obligation must fulfill these aims:

- The country need for private sector finance and technique.
- Obvious national political for development clearly obliged the private sector participation in financing substructure projects.
- A good national reputation.
- Participation notion of people acceptance
- The government obligation in compliance with substructure projects based on PPP's.

2- Economical criteria

According to the infrastructure investment importance of national development, the government must put a work scheme for economical evaluation to make sure that better decisions are made then achieve a value for finance by using the country local sources and the foreign investment with limitation of the government participation with the project profits. the most important five economical criteria obligation must fulfill these aims:

- Multi benefit objectives.
- Economical development flourish's contribution.
- Real demands promising (perspective).
- Level of economic development.
- Public debt problem salvation and lessen deficit

3- Legal and political criteria

Whether to assess the contracting authority has the legal ability to enter into a PPP contract. The legal viability assessment should also consider the legal implications of the project in relation to existing employees, assets and contracts. Attractiveness of any PPP's projects to private sector investor depends on the way which the government treats main legal cases like carrying out contracts and private ownership ,taxes, insurance, foreign sector finance, profits they are all critical things for all foreign investment in PPP's projects. The most important five legal and political critical factors which the government obligation must fulfill these aims:



- Legal framework for realization of PPP's projects.
- Political stability.
- Expropriation.
- Government skills in PPP's projects.
- National resources and services use.
- 4- Financial and commercial criteria

The Development in the financial market is a great importance in attracting local and foreign investments because they make it easier for the investor access to financial resources when needed and the ability to be employed when there are assets, and they are easier for the investor out of the market with minimal losses. The most important five Financial and commercial criteria factors which the government obligation must fulfill these aims:

- Contracts execution ability ;
- Availability of foreign currencies ;
- Sufficient rules for foreigner property and company establishment;
- Efficient capital market;
- Commercial banking jobs legislation and insurance.

5- Administration and organizational criteria:

The government should establish a framework to host administratively credible and effective implementation of the strategy for PPP's successfully so that the complex bureaucratic procedures and lack of decision-making authority to managers often referred to as a serious bottleneck for operations PPP's. the effective administrative framework will greatly accelerate private sector investment in projects of PPP's. There is no management framework and perfect single for the development of all PPP's projects so that each country has its own Special administrative and special culture administrative region. the most important five Administration and organizational criteria factors the government obligation must fulfill these aims:

- Legislation suggestion and putting administration systems to activate and watching projects.
- Penetrate the bureaucratic obstacle to secure the immediate ratification and auditor.
- Limit and put priority for PPP's projects in compliance with ministries and government organization and local executive corps.
- Training of administration person to understand and value the plans of PPP's.
- Using consultative corps to check, certification, development and PPP's projects executive.

6- Social and environmental criteria

the development and implementation of most PPP's projects is a customary in traditional infrastructure projects, take a survey of social, environmental ,social impact assessment, environmental standards and characterization of environmental performance standard is particularly important. The most important five social and environmental critical factors which the government must follow to make successful PPP's projects as appeared in analysis of questionnaire are:

- Job security and achieve development implementing
- The impact of Wars and terrorism
- Private sector participation activation
- Local support from the surrounding community to the project
- Existence of environmental policies.

7- Technical criteria

This refers to the availability expertise in terms of technology, management, material, equipment and human resources to undertake infrastructure projects in Iraq. The government is seeking projects in the PPP's to increase the benefits of the PPP's projects up to the maximum for each of



them, local capacity-building and technology transfer from the project sponsors, guarantors and contractors and so the PPP's projects can formulated to provides for the transfer of advanced technology and reduce the countries' dependence developing on foreign technology and improve the self-reliance of technology they have. The most important five Technical criteria factors which the government obligation must fulfill these aims :

- The applicable technology to infrastructure projects must be aligned with national available input and with the current and expected needs of the country.
- Training and the use of national elements trainees to transfer technology.
- Cooperation between local companies and project companies to manufacture equipment.
- The acquisition and transfer of technology from sponsors.
- The use of local goods and services to insure local participation as long as it is rival in (quality, service and time table for delivering and price)

8- Support and government motives and guarantees criteria

the governments should assess the need to provide incentives support both direct and indirect in all PPP's projects almost, and vary the degree and type of support varies greatly too, depending , among other things on the country risk and the feasibility of the project and the country's need for the project and the competitive position of the Government. The most important five Support and government motives and guarantees criteria factors which the government obligation must fulfill these aims:

- Currency exchange protection.
- The host government Contributions coming from the existing assets
- Land and Facilities for other logistic made by government.
- Providing incentive and tax guarantees.
- Financial support Subsidy.

7. CONCLOTION

According to what is presented in this paper about the facts of infrastructure projects in Iraq and the tendencies of investment after 2003. the Strategically chosen for rebuilding and rehabilitating the infrastructure projects in Iraq is adapted by PPP's contracts to public sectors in accordance of it, the public sector agreed with private sector to execute the infrastructure projects according specification and limited period of time.

This paper has presented the requirements of successful partnership in Iraq, depending on the basis of reviewing relevant researches of (CSF's) in PPP's projects and local factors in Iraq and findings from a questionnaire survey including looking at the 87 previously identified CSF's for PPP's models. The significances index technique was used to identify the ranking of CSF's. The findings showed that five underlying grouped factors accounting in responses were derived from the 87 success factors. All loadings for the CSF's were greater than 60% indicating a high absolute value for each.found out (40) CSF's. thus they are especially important CSF's based on our interpretative structural model. These findings will be of help to the successful scientific decision-making of infrastructure projects in their evaluation of CSF's for PPP's projects in Iraq.

References

> al-Waqā'i 'al-'Irāqiyah, the Iraqi constitution of 2005.

- > al-Waqā'i 'al-'Irāqiyah, the Iraqi investment law for the year 2006
- advisors of the Prime Minister (PMAC) Report assessing the economic priorities of current and projected in Iraq.



- Dada, M.O.a & Oladokun, M.G.b, 2012. analysis of critical success sub-factors for public private partnership in Nigeria,.
- Fourie, D. M. 2006. Municipality-Community Partnerships for poverty alleviation: A model to replicate. Foundation for Contemporary Research (FCR).
- Hardcastle et al. 2005, Cities Development Initiative for Asia (CDIA), Basic Course on Public-Private Partnerships (PPP) for Municipalities: Training for Facilitators Participants Materials. July 2012.
- ▶ kamal albasri, Iraq institute for economic reform.2012.
- International bank(doing business in Iraq.2012.
- International Monetary Fund, 2004. Public private partnerships. Fiscal Affairs Department, the World Bank and the Inter- American Development Bank, March
- National Investment Commission, Investment overview of Iraq, Iraq, 2009, p.10.
- Republic of Iraq, Ministry of Planning National Development Plan for the Years 2010-2014, Baghdad 2010.
- Ziekow, J. & Windoffer, A. ,2008. Public Private Partnership. Struktur und Erfolgsbedingungen von Kooperationsarenen. Baden- Baden: Nomos.
- Ulli Arnold and Vanessa Kehl, public –private partnership (ppp) on the move or going south? Empirical indications for successful ppp decisions from German municipalies, 2011.
- World Bank and PPIAF (Public-Private Infrastructure Advisory Facility. 2012. Toolkit: A Guide for Hiring and Managing Advisors for Private Participation in Infrastructure. Washington, DC: World Bank and PPIAF.



Figure 1. How Iraq ranks on Doing Business topics (doing business in Iraq 2014).



Figure 2. How Iraq and comparator economies rank on the ease of doing business.



Figure 3. Investment in Iraq by sector ,Investment overview of Iraq, 2009.



Figure 4. PPP models and assumption of risks by the private sector.



| TOPICS | DB 2014 | DB 2013 | Change in |
|---------------------------|---------|---------|--------------|
| Starting a Business | 169 | 168 | + -1 |
| Dealing with Construction | 20 | 28 | ★ +8 |
| Getting Electricity | 39 | 49 | ↑ +10 |
| Registering Property | 108 | 99 | * -9 |
| Getting Credit | 180 | 177 | * -3 |
| Protecting Investors | 128 | 127 | * -1 |
| Paying Taxes | 63 | 65 | ★ +2 |
| Trading Across Borders | 179 | 182 | ★ +3 |
| Enforcing Contracts | 142 | 143 | +1 |
| Resolving Insolvency | 189 | 189 | No change |

Table 1. How Iraq ranks on Doing Business topics (doing business in Iraq 2014).

| Table 2. | balanced sheet (| (2006-2010). |
|----------|------------------|--------------|
|----------|------------------|--------------|

| NO. | Effective factor | Ratio % |
|-----|---|---------|
| 1 | Working commencement delay because of preparing site. | 91.30 |
| 2 | Security absence | 86.96 |
| 3 | Unlimited of the period of opening and analyses and remits. | 76.19 |
| 4 | Un chosen apt contractor. | 76.19 |
| 5 | Complete working investigation not has been found. | 73.91 |
| 6 | Financial allowances delay transformation | 69.57 |
| 7 | Changing order taking decisions delay | 68.18 |
| 8 | Contractor advance payment delay | 52.38 |
| 9 | Incompatible observation and management | 40.91 |
| 10 | Site receiving delay of the contractor | 38.10 |
| 11 | Unavailable of gas oil and asphalt and others | 36.48 |

Table 3. The investment Estimation of the economic sector.

| the investment Estimation needs of the economic sector | | | | | | |
|--|---------|------|------|------|------|-------|
| | | | | | | |
| activities | 2006(1) | 2007 | 2008 | 2009 | 2010 | total |
| Crude oil extraction | 3.4 | 8.4 | 8.7 | 9.3 | 9.6 | 36.0 |
| Electricity | | 6.0 | 4.4 | 3.5 | 2.6 | 16.5 |
| Water Resources | | 1.0 | 1.5 | 1.5 | 1.2 | 5.2 |
| Agriculture | | 1.1 | 1.0 | 1.0 | 1.0 | 4.1 |
| Manufacturing | | 0.3 | 0.2 | 0.2 | 0.1 | 0.8 |
| Transportation, transport | | 7.5 | 7.5 | 7.5 | 7.5 | 30.0 |
| Building and construction | | 1.5 | 1.5 | 1.5 | 1.5 | 6.0 |
| Home ownership | | 10.0 | 12.0 | 15.0 | 15.0 | 52.0 |
| Health | | 2.5 | 3.3 | 4.4 | 4.5 | 14.7 |
| Education | | 0.6 | 0.6 | 0.6 | 0.6 | 2.4 |
| communications | | 0.3 | 0.3 | 0.2 | 0.2 | 1.0 |
| Water and sanitation | | 1.4 | 1.9 | 2.5 | 2.7 | 8.0 |
| Development of regions and | | 205 | 2.5 | 3.0 | 4.0 | 11.0 |
| provinces | | 203 | 2.3 | 5.0 | 4.0 | 11.0 |
| tatal | 14.9 | 43.1 | 45.4 | 49.7 | 49.5 | 187.7 |

| Designated and paid investment spending for(2007- | | | | | | |
|---|------|------|------|------|-------|--|
| 2012) | 2000 | 2000 | 2010 | 0011 | 2012 | |
| year | 2008 | 2009 | 2010 | 2011 | 2012 | |
| Operating | 52.4 | 46.3 | 52.2 | 66.6 | 79.9 | |
| spending | | | | | | |
| investment | 21.7 | 12.8 | 20.2 | 30.1 | 37.2 | |
| spending | | | | | | |
| % total budget 29% 22% 28% 31% 32% | | | | | | |
| Total budget | 74.1 | 59.1 | 72.4 | 96.7 | 117.1 | |

Table 4. The budget of Iraq state.

Table 5. Anticipated Financial Revenues for the Years 2010-2014 (Billions of Iraqi Dinars).

| Table 3 Anticipated Financial Revenues for the Years 2010-2014 (Billions of Iraqi Dinar) | | | | | |
|--|---|-------------------------------------|---------------------|------------------------------|-----------------------------------|
| Year | Committee Estimates for Oil Revenues | Non-Oil Revenues | Total (-1) | Alternative Oil Estimates | Total (-2) |
| 2010 | 55,089.45 | 3,263.6 | 58,353.1 | 55,089.4 | 58,353.1 |
| 2011 | 61,880.13 | 5,628.2 | 67,507.7 | 61,880.1 | 67,507.7 |
| 2012 | 72,598.5 | 6,354 | 78,952.5 | 82,506.1 | 88,860.1 |
| 2013 | 81,310.32 | 6,846.9 | 88,157.2 | 99,006.6 | 105,853.5 |
| 2014 | 90,022.14 | 7404.4 | 97,426.5 | 118,808.8 | 126,213.2 |
| Total | | | 390,397 | | 446,787.6 |
| | | Plan Calculati | ions | | |
| Alternatives | | 30 percent of be targeted to invest | | | v the domestic and vate sector |
| | | Billions of dinars | Billions of dollars | Billions of dinars | Billions of dollars |
| Alternative One | • | 117,119.1 | 100 | 152,345.9 | 130.2 |
| Alternative Two | to be adopted after 2010 | 134,036.3 | 114.6 | 83,600.7 | 71.5 |
| | | | | | |

Table 6. Classification of public- private partnership.

| | | 1 | <u> </u> | I | |
|--|------------------|--|-----------------|-------------------|-------------------|
| Ppp option | Service | Management | Lease | BOT | Concession |
| /activities | contracts | contracts | contracts | contracts | contracts |
| Financing | Puplic | Puplic sector | Puplic sector | Private sector | Private |
| investment | sector | i upite sector | i upite sector | I IIvate sector | sector |
| Financing | Puplic | Puplic sector | Private sector | Private sector | Private |
| workings capital | sector | i upite sector | I IIvale sector | I IIvale sector | sector |
| Contractual relations with customers | Puplic sector | Private sector(on behalve of Puplic sector) | Private sector | Puplic sector | Private sector |
| Private sector responsibility and autonomy | low | low | Low to medium | medium to high | high |
| Need of private capital | low | low | low | high | high |
| Financial risk for | low | low | Low to | high | high |





| private sector | | | medium | | |
|---------------------------------|------------------------------------|------------------------------------|------------------------------------|---|--|
| Duration of contract license | 6 months- 2years | 3-5 years | 5-15 years | 15-30 years | 20-30 years |
| ownership | Puplic sector | Puplic sector | Puplic sector | Private then Puplic sector | Puplic sector |
| management | Mainly Puplic sector | Private sector | Private sector | Private sector | Private sector |
| Setting prices | Puplic sector | Puplic sector | Contract and regular | Public/Private sector | Contract and regular |
| Collecting bills | Puplic sector | Private sector | Private sector | Puplic/Private sector | Private sector |
| Main objective of ppp | Improve operating efficiency | Improve technical efficiency | Improve technical efficiency | Mobilize private capital and /or expertise | Mobilize private capital and /or expertise |

 Table 7 . Critical Success Factors for PPP Projects through Literature Review.

| NO. | CSF's | Ppp type | Author |
|-----|---|----------|------------------------|
| 1- | Tiong identified six CSF's for private contractors | BOT | Tiong (1996) |
| | in competitive tendering and negotiation in BOT | | |
| | contracts as: | | |
| | 1- entrepreneurship and leadership; | | |
| | 2- right project identification; | | |
| | 3- strength of the consortium; | | |
| | 4- technical solution advantage; | | |
| | 5- financial package differentiation; and | | |
| | 6- differentiation in guarantees | | |
| 2- | Tiong identified CSF's in winning BOT contracts, | BOT | Tiong and Alum (1997), |
| | which include factors such as: | | Gupta and Norasimham |
| | right project identification, | | (1998 |
| | \circ strength of consortium, | | |
| | financial package differentiation' and | | |
| | supportive and understanding community. | | |
| 3- | Buksbaun describes Public Private Partnership as: | PPP | Buksbaun (1999) |
| | 1- new institutional relationships, | general | |
| | 2- effectively address critical socio-economic | | |
| | challenges. | | |
| | 3- developed by mobilizing the energies and talents | | |
| | of diverse sectors to bring about social and | | |
| | economic transformation. | | |
| | 4- result of mature democratic tradition | | |
| 4- | Qiao established Eight independent CSF's ,were | BOT | Qiao (2001) |
| | 1- appropriate project identification; | | |
| | 2- stable political and economic situation | | |



| - | | Γ | |
|----|--|------|-------------------------|
| | 3- attractive financial package; | | |
| | 4- acceptable toll/tariff levels; | | |
| | 5- reasonable risk allocation; | | |
| | 6- selection of suitable subcontractors; | | |
| | 7- management control; and | | |
| | 8- Technology transfer. | | |
| 5- | Jefferies explored CSF's to Stadium Australia. And | BOOT | Jefferies et al. (2002) |
| | identified and examined 15 success factors relevant | | |
| | to the project and the most significant CSF's | | |
| | include, | | |
| | 1-compatibility/complimentary skills among the | | |
| | key parties', | | |
| | 2-'technical innovation in overcoming project | | |
| | complexity' and | | |
| | 3-'efficient approval process'. | | |
| | 4-'environmental impact', | | |
| | 5-'developed legal/economic framework', | | |
| | 6-'political stability', | | |
| | 7-'selecting the right project', | | |
| | 8-'existing strategic alliances', | | |
| | 9-'good resource management', | | |
| | 10-'trust', 'community support', | | |
| | 11-'feasibility study', | | |
| | 12-'transfer of technology', | | |
| | 13-'financial capability', and | | |
| | 14-'consortium structure'. | | |
| 6- | Solomon showed that | ppp | Solomon <u>Olusola</u> |
| | 1- well organized and committed public agency; | | <u>Babatunde</u> |
| | 2- social support; | | 2002 |
| | 3- project technical feasibility and multi-benefits | | |
| | objectives. | | |
| | are the CFSs that are most important to the private | | |
| | investors. On the other hand, factors such as: | | |
| | 1- transparency in the procurement process | | |
| | 2- shared authority between public and private | | |
| | sector; | | |
| | 3- thorough and realistic assessment of the cost and | | |
| | benefits; | | |
| | 4- commitment and responsibility of public and | | |
| | private sector and | | |
| | 5- strong and good private consortium | | |
| | are the CSFs that are most important to the public | | |
| L | clients. | | |
| 7- | Akintoye investigated Factors that: | PFI | Akintoye et al. (2003) |
| | 1- Contribute to the achievement of best value in | | |
| | PFI projects are detailed risk analysis and | | |
| | appropriate risk allocation, drive for faster | | |
| | project completion, curtailment in project cost | | |

| | escalation, encouragement of innovation in project development, and maintenance cost | | |
|-----|---|----------------|------------------------|
| | being adequately accounted for.2- impede the achievement of best value in PFI projects are: high cost of the PFI procurement | | |
| | process, lengthy and complex negotiations, difficulty in specifying the quality of service, | | |
| | pricing of facility management services, | | |
| | potential conflicts of interests among those involved in the procurement, and the public | | |
| 0 | sector clients' inability to manage consultants. | Drava | Ismali (2004) |
| 8- | Jamali investigated the CSF's for PPP | Ppp | Jamali (2004) |
| | implementation in the telecommunication industry | general | |
| | in Lebanon. Using a case study approach, the | | |
| | findings indicate that | | |
| | 1-'trust', | | |
| | 2-'openness' and 3-'fairness' | | |
| | are basic foundational underpinnings of successful | | |
| | PPPs | | |
| 9- | | Dnn | Zhang (2005) |
| 9- | Zhang advocated that PPP project procurement should be based on a public- private win-win | Ppp general | Zhang (2005) |
| | principle. It is under this premise that he was able to | general | |
| | identify five CSF's and a number of SSFs. These | | |
| | are: | | |
| | 1-favorable investment environment; | | |
| | 2- economic viability; | | |
| | 3- reliable concessionaire with technical strength; | | |
| | 4- sound financial package; and | | |
| | 5-appropriate risk allocation via reliable contractual | | |
| | arrangements | | |
| 10- | Hardcastle used factor analysis approach to identify | PFI | Hardcastle, Edwards , |
| | CSF's in PPP/PFI projects in the United Kingdom | | Akintoye and Li (2005) |
| | construction industry: | | |
| | 1- effective procurement; | | |
| | 2- project implementability; | | |
| | 3- government guarantee; | | |
| | 4- favourable economic conditions; and | | |
| | 5- available financial market | | |
| 11- | A grounded theory research , Trafford discovered | ppp | Trafford and Proctor |
| | five key characteristics that are crucial in ensuring | | (2006) |
| | the success of PPP projects: | | |
| | 1- good communication, | | |
| | 2- openness, | | |
| | 3- effective planning, | | |
| | 4- ethos and | | |
| | 5-direction He research on factors like general government | | Hammami et al.(2006) |
| 12- | | ppp | |



| - | | | |
|-----|---|-----|--|
| | balance, total debt, Aid per capita, fuel exports, ethnic fractionalization, chief executive's party orientation, opposition parties in legislature, population, real GDP per capita, inflation, money supply, international reserves, control of corruption, composite country risk, rule of law and common | | |
| | law origin as determinants of PPPs in developing countries | | |
| 13- | Bing Li show that the three most important factors are: 'a strong and good private consortium', 'appropriate risk allocation' and 'available financial market'. Factor analysis revealed that appropriate factor groupings for the 18 CSF's are: effective procurement , project implement ability, government guarantee, favorable economic conditions and available financial market. | PFI | Bing Li, A. Akintoye, P. J. Edwards Corresponding author(2007) |
| 14- | Wong proved the Successful PPP's implementation requires a stable political and social environment, which in turn relies on the stability and capability of the host government (Political and social issues that go beyond private sector's domain should be handled by the government. If unduly victimized, it is legitimate that the private sector participants should be adequately compensated | ррр | Wong, (2007). |
| 15- | Wang proposed forty-five success factors of infrastructure projects under PPP mode in China are classified into eight main aspects, including 1-the own factors of PPP projects, 2-favorable investment environment, 3- project company competence, 4- project contractor and operator competence, 5-government support, 6- product quality, 7- project management and Regulation policy for PPP project. and found out twenty-one critical success factors , among which, 1- reasonable risk-sharing mechanism, 2-financial system and policy for PPP projects, 3-the improvement of regulation and policy, 4-rational pricing mechanism and effective supervision mechanis: | ррр | Wang, LI Qi-ming, Deng Xiao-peng , LI Jing-hua (2007) |
| 16- | Jacobson examined principal factors that contribute to successful PPP projects. Ten success factors were investigated: 1-specific plan/vision, 2-commitment, | ррр | Jacobson and Choi (2008) |
| I | 3-open communication and trust, | | |



| | 4 1111 | | 1 |
|-----|---|-----|--------------------------|
| | 4-willingness to compromise/collaborate, | | |
| | 5- respect', 'community outreach, | | |
| | 6-political support, | | |
| | 7-expert advice and review, | | |
| | 8-risk awareness, | | |
| | 9-clear roles and | | |
| | 10-responsibilities. | | |
| | The results show that 'high degrees of commitment' | | |
| | and 'shared vision between the client, architect, and | | |
| | contractor' are the most important factors for | | |
| | construction success | | |
| 17- | Abdul Aziz examined the CSF's of ten PPP | PPP | Abdul Aziz (2010) |
| 17 | housing projects in Malaysia. The study identified | 111 | |
| | 15 success factors for PPP housing projects: | | |
| | | | |
| | 1-action against errant developer', | | |
| | 2-robust and clear agreement', | | |
| | 3-reputable developer', | | |
| | 4-constant communication', | | |
| | 5-developer's profit sharing accountability', | | |
| | 6-developer's social accountability', | | |
| | 7-house buyer's demand', | | |
| | 8-negotiation skills', | | |
| | 9-adequate negotiation staff', | | |
| | 10-realistic projection', | | |
| | 11-competition', | | |
| | 12-ample time to evaluate proposal', | | |
| | 13-political influence', | | |
| | 14-consistent monitoring', and | | |
| | 15-compatibility between partners'. | | |
| | The results reveal that all 15 factors except | | |
| | 'political influence' contribute significantly to the | | |
| | success of a PPP housing project | | |
| 18- | Dulaimi, Concluded that political support was | ppp | Dulaimi, Alhashemi, Ling |
| 10 | regarded as most critical factor, while lack of | ЧЧЧ | and |
| | appropriate knowledge and skills of the consortia | | Kumaraswam (2010) |
| | leads to project failure. | | ixumaraswanii (2010) |
| 19- | Ahmadi find in the last experiences in developing | nnn | Ahmadi et al.(2010) |
| 19- | countries and reaching a model for Iran Factors like | ppp | Anniaul et al.(2010) |
| | | | |
| | GDP, macroeconomic stability, fuel export, budget | | |
| 20 | deficit, trade deficit, business climate, | DOT | 71 (2010) |
| 20- | Zhao investigated the factors contributing to the | BOT | Zhao et al. (2010) |
| | success of two PPP power projects – thermal power | | |
| | and wind power – that were developed using the | | |
| | Build Own Transfer (BOT) mode.the authors | | |
| | identified 31 success factors for the power projects | | |
| | and investigate the relative importance of the | | |
| | success factors specific to the individual thermal | | |
| | and wind power | | |



| 21- | Chan Used 18 factors to investigate opinions on | | Chan, Lam, Chan, Cheung, |
|-----|--|-----|----------------------------|
| | CSF's in PPP. The factors were decomposed into | | and Ke (2010) |
| | five underlying groups or factors: | | |
| | 1- stable macroeconomic environment, | | |
| | 2- shared responsibility between private and public | | |
| | sector, | | |
| | 3- transparent and efficient procurement process, | | |
| | 4-stable political and social environment, and | | |
| | 5- Judicious government control. | | |
| 22- | Marques described a Successful PPP's projects are | PPP | Marques and Berg (2010) |
| | based on three pillars | | |
| | 1- all relevant criteria should be taken into account | | |
| | in the public tender phase (although the evaluation | | |
| | model should only contain the strictly necessary | | |
| | criteria to choose the best bidder); | | |
| | 2- the suitable risk management framework is | | |
| | determinant to protect the public interest; | | |
| | 3- the sound principles of contract management | | |
| | must be put into practice (including the definition of | | |
| | incentives and penalties, | | |
| 23- | Akintoye achieving best value in private finance | PFI | Akintoye, Cliff Hardcastle |
| | initiative (PFI) projects and the associated problems | | et al2010 |
| | therein, find the Factors that contribute to the | | |
| | achievement of best value in PFI projects are | | |
| | 1.detailed risk analysis and appropriate risk | | |
| | allocation, | | |
| | 2.drive for faster project completion, | | |
| | 3.curtailment in project cost escalation, | | |
| | 4.encouragement of innovation in project | | |
| | development, and maintenance cost being | | |
| | adequately accounted for. | | |
| | Factors that impede the achievement of best value | | |
| | in PFI projects are: | | |
| | 1. high cost of the PFI procurement process, | | |
| | 2. lengthy and complex negotiations, | | |
| | 3. difficulty in specifying the quality of | | |
| | service, | | |
| | 4. pricing of facility management services, | | |
| | 5. potential conflicts of interests among those | | |
| | involved in the procurement, and | | |
| | 6. the public sector clients' inability to manage | | |
| | consultants | | |
| 24- | Chan showed that the 18 CSF's could be grouped | | Chan, A., Lam, P., Chan, |
| | into five underlying factors including: | | D., Cheung,2010 |
| | 1—stable macroeconomic environment; | | |
| | 2—shared responsibility between public and private | | |
| | sector | | |
| | 3-transparent and efficient procurement process; | | |



| | 4—stable political and social environment; and Factor5—judicious government control. | | |
|-----|---|-----|---|
| 25- | Rosa presented PPP infrastructure construction projects can be evaluated according to financial, technical, private partner selection criteria as well as social, economic, and environmental factors by using model for effectiveness evaluation of PPP infrastructure construction projects suggested by the authors: a- sustainability performance indicator economical aspects Social aspects Environmental aspects. b- PPP effectiveness indicator Private sector partner evaluation Project evaluation | ррр | Rasa Apanavičienė , Rūta Rudžianskaitė Kvaraciejienė,2010 |
| 26- | Mohamed found that the most important factors in Kuwait can be grouped in five clusters. 1- Effective Procurement, 2- Project Implementability, 3- Government Guarantee, 4- Favorable Economic Conditions 5- Available Financial!Market | ррр | Mohamed Ahmed Helmy,2011 |
| 27- | The study has established for the Nigerian environment, Under favorable investment environment both the private and public sectors ranked 1- Stable political 2- sound financial package, 3-appropriate risk allocation | | Dada, M.O.a* and Oladokun, M.G.2012 |
| 28- | Basing on the overall respondentsof 18 factors' results, the top five most critical factors, in descending order of importance are: 1- good governance; 2- commitment and responsibility of public and private sectors; 3- favourable legal framework; 4- sound economic policy; and 5- available financial market. The two factors that were ranked as least important for project success are government involvement by providing guarantee and political support. | ррр | . Suhaiza Ismail, Shochrul Rohmatul Ajija 2013 |



| 28- | Ogunsanmi concluded that for successful | ppp | Ogunsanmi | Olabode |
|-----|--|-----|---------------|---------|
| | implementation of PPP projects in Nigeria the | | Emmanuel,2014 | |
| | contributive CSF's are: | | | |
| | 1- transparent and sound regulatory framework, | | | |
| | 2- comprehensive feasibility study, | | | |
| | 3- appropriate risk allocation, | | | |
| | 4- commitment, | | | |
| | 5- responsibility of public and private sectors, | | | |
| | 6- strong private consortium, | | | |
| | 7- government guarantee, | | | |
| | 8- realistic cost/benefit assessment, | | | |
| | 9- stable macro-economic conditions and | | | |
| | 10- sound economy policy that must | | | |



| - | Table 8 .statistical analysis results for | nirastr | ucture p | rojects und | er ppp model | • | | |
|-----|--|---------|----------|-------------|-------------------|-------------------------------------|----------------|---------|
| NO. | factors | mean | Chang | St. | % significance | 95% Confidence Interval for Mean | | ranking |
| NO. | | mean | level | deviation | index | Low ending | High ending | |
| 1 | Privatization and investment Policy criteria: | | | | | | | |
| 1. | Participation notion of people acceptance | 3.21 | .176 | 1.138 | 64.200 | 2.86 | 3.57 | 4 |
| 2. | Obvious national political for development clearly obliged the private sector participation in financing substructure projects | 3.5000 | .14952 | .96903 | 70.000 | 3.1980 | 3.8020 | 2 |
| 3. | The government obligation in compliance with substructure projects based on ppp | 3.1905 | .16778 | 1.08736 | 63.810 | 2.8516 | 3.5293 | 5 |
| 4. | The country need for private sector financial and technical resources. | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 5. | The government has a logic base to support ppp projects, | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 6 |
| 6. | Private sector participation activation | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 9 |
| 7. | Public awareness supportance and laboure unions for private sector participation. | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 10 |
| 8. | Stable political situation | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 8 |
| 9. | Well international reputation | 3.2143 | .17883 | 1.15897 | 64.286 | 2.8531 | 3.5754 | 3 |
| 10. | International plan consistancy | 3.1190 | .18417 | 1.19353 | 62.380 | 2.7471 | 3.4910 | 7 |
| 2 | - Economical criteria; | | | | | | | |
| 1. | Public debt problem salvation and lessen deficit | 3.2143 | .17883 | 1.15897 | 64.286 | 2.8531 | 3.5754 | 5 |
| 2. | Political and security stable | 3.21 | .176 | 1.138 | 64.200 | 2.86 | 3.57 | 7 |
| 3. | Country economical strength (economical development standard) | 3.5000 | .14952 | .96903 | 70.000 | 3.1980 | 3.8020 | 4 |
| 4. | System and interest rate | 3.1905 | .16778 | 1.08736 | 63.810 | 2.8516 | 3.5293 | 8 |
| 5. | Project benefit of government participation rate | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 6. | Interest achievement of sale price | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 9 |
| 7. | Market need for project | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 13 |

Table 8 .statistical analysis results for infrastructure projects under ppp model.



| 0 | | 1 | | | | | | 1 |
|-----|---|--------|--------|----------|---------|--------|---------|----|
| 8. | Demand progressive and buying assurances(warranty | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 14 |
| 0 | guaranties) | 2.0052 | 15016 | 1.021.45 | (1.00.4 | 0.7700 | 2.41.67 | 10 |
| 9. | Investment attraction | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 10 |
| 10. | Joint – stock and local companies | 3.2143 | .17883 | 1.15897 | 64.286 | 2.8531 | 3.5754 | 6 |
| 11. | Economical development flourish's contribution | 3.7351 | .14076 | .91223 | 74.702 | 3.4538 | 4.0224 | 2 |
| 12. | Real demands promising (perspective) | 3.619 | .17024 | 1.10326 | 72.380 | 3.2752 | 3.9628 | 3 |
| 13. | conventional and international society Interest | 3.0476 | .17361 | 1.12515 | 60.958 | 2.6970 | 3.3982 | 12 |
| 14. | Purchase orders for articles local equipment | 3.0952 | .14780 | .95788 | 61.904 | 2.7967 | 3.3937 | 11 |
| 3 | - Legal and political criteria: | | | | | | | |
| 1. | National merchandise and services use | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 5 |
| 2. | Resemblance of system and its stability | 2.9514 | .14836 | .96151 | 59.028 | 2.6528 | 3.2520 | 9 |
| 3. | Privilege ending by government | 2.4524 | .11905 | .77152 | 49.048 | 2.2120 | 2.6928 | 10 |
| 4. | Competition | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 8 |
| 5. | The right for using land, roads and supporting establishments | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 11 |
| 6. | Rarity of risks and argument | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 7 |
| 7. | Government skills in ppp projects | 3.2143 | .17883 | 1.15897 | 64.286 | 2.8531 | 3.5754 | 4 |
| 8. | Legal framework for realization of PPP's projects. | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 9. | The rate of foreigner property in the projects | 3.1420 | .15828 | 1.02580 | 62.840 | 2.8232 | 3.4625 | 6 |
| 10. | Political stability | 3.4524 | .14540 | .94230 | 69.048 | 3.1587 | 3.7460 | 2 |
| 11. | Expropriation | 3.2857 | .15723 | 1.01898 | 65.714 | 2.9682 | 3.6033 | 3 |
| 4 | - Financial and commercial criteria: | | | | | | | |
| 1. | Legal frame work to protect personal thoughts | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 8 |
| 2. | Rules project property rights | 2.4762 | .14150 | .91700 | 48.080 | 2.1904 | 2.7619 | 10 |
| 3. | Property rights protection from appropriation and naturalization | 3.0238 | .17540 | 1.13671 | 61.900 | 2.6696 | 3.3780 | 6 |
| 4. | Contracts execution ability | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 5. | Sufficient rules for foreigner property and company establishment | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 3 |
| 6. | Rent legislation and privilege giving | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 7 |
| 7. | Environmental and labour rules | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 9 |



| 8. | Commercial banking jobs legislation and insurance | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 5 |
|-----|--|--------|--------|---------|--------|--------|--------|----|
| 9. | Efficient capital market | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 4 |
| 10. | Availability of foreign currencies | 3.1667 | .15955 | 1.03398 | 63.334 | 2.8445 | 3.4889 | 2 |
| 5 | - Administration and organizational criteria: | • | | | | | • | |
| 1. | Framing the government politics and choosing suitable sectors' for ppp projects | 3.0000 | .13632 | .88345 | 60.000 | 2.7247 | 3.2753 | 8 |
| 2. | Legislation suggestion and putting administration systems to activate and watching projects | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 3. | Submitting systems for rationalization and coordination administrative arrangements with ministries and government organizations | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 9 |
| 4. | Limit and put priority for ppp projects in compliance with ministries and government organization and local executive corps. | 3.2143 | .17883 | 1.15897 | 64.286 | 2.8531 | 3.5754 | 3 |
| 5. | Using consultative corps to check ,certification, development and ppp projects executive | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 5 |
| 6. | Penetrate the bureaucratic obstacle to secure the immediate ratification and auditor. | 3.3095 | .15798 | 1.02382 | 66.190 | 2.9905 | 3.6286 | 2 |
| 7. | Training of administration person to understand and value the plans of ppp. | 3.2381 | .15546 | 1.00752 | 64.762 | 2.9241 | 3.5521 | 4 |
| 8. | The experience of the contracts owner and negotiation of ppp projects | 3.0952 | .14780 | .95788 | 61.904 | 2.7967 | 3.3937 | 6 |
| 9. | Speed credits and monitoring extracts credits and speed monitoring extracts | 3.0714 | .16483 | 1.06823 | 61.428 | 2.7385 | 3.4043 | 7 |
| 10. | Management flexibility and responsibility determination | 2.9048 | .15916 | 1.03145 | 58.096 | 2.5833 | 3.2262 | 10 |
| 11. | Government intervention in the projects | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 11 |
| | - Social and environmental criteria: | | | | | | | |
| 1. | Private sector participation activation | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 3 |
| 2. | Job security and achieve development implementing | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 1 |
| 3. | The impact of Wars and terrorism | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 2 |



| 4. | Local support from the surrounding community to the project | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 4 |
|----|--|--------|--------|---------|--------|--------|--------|----|
| 5. | Existence of environmental policies | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 5 |
| 7. | - Technical criteria: | | | | | | | |
| 1. | The use of local goods and services to insure local participation as long as it is rival in (quality, service and time table for delivering and price) | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 5 |
| 2. | The applicable technology to infrastructure projects must be aligned with national available input and with the current and expected needs of the country. | 4.0238 | .12972 | .84068 | 80.476 | 3.7618 | 4.2858 | 1 |
| 3. | The acquisition and transfer of technology from sponsors. | 3.3333 | .15113 | .97946 | 66.666 | 3.0281 | 3.6386 | 4 |
| 4. | The adaption of the must appropriate technology to the local conditions. | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 6 |
| 5. | The introduction of local contractor in request for quotation for minor contracts(building national capacity secondary contracting) | 2.5952 | .14483 | .93859 | 51.904 | 2.3028 | 2.8877 | 7 |
| 6. | Training and the use of national elements trainees to transfer technology. | 3.9286 | .14616 | .94721 | 78.572 | 3.6334 | 4.2237 | 2 |
| 7. | Cooperation between local companies and project companies to manufacture equipment. | 3.381 | .15223 | .98655 | 67.620 | 3.0735 | 3.6884 | 3 |
| 8 | Support and government motives and guarantees criteria: | | | | | | | |
| 1. | Providing incentive and tax guarantees. | 3.4762 | .15706 | 1.01784 | 69.524 | 3.1590 | 3.7934 | 4 |
| 2. | Currency exchange protection. | 4.0238 | .12972 | .84068 | 80.476 | 3.7618 | 4.2858 | 1 |
| 3. | Exemption from income tax for foreign project staff. | 2.7857 | .14271 | .92488 | 55.714 | 2.4975 | 3.0739 | 17 |
| 4. | The process of tax exemption (the tax exemption of real state). | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 12 |
| 5. | Land and Facilities for other logistic made by government. | 3.7381 | .14076 | .91223 | 74.762 | 3.4538 | 4.0224 | 3 |
| 6. | Franchise (privilege) of tax. | 3.1429 | .15828 | 1.02580 | 62.858 | 2.8232 | 3.4625 | 10 |
| 7. | Exemption from import duties on equipment, row materials and the components of the establishment and operating maintenance of the projects or divided. | 3.1667 | .13162 | .85302 | 63.334 | 2.9008 | 3.4325 | 9 |
| 8. | Incentives and fines of achievement and performance | 2.4048 | .12779 | .82815 | 48.096 | 2.1467 | 2.6628 | 19 |



| 9. | Government guarantees and financial reservation | 3.0714 | .16832 | 1.09082 | 61.428 | 2.7315 | 3.4114 | 13 |
|-----|---|--------|--------|---------|--------|--------|--------|----|
| 10. | Reinforcement of petrol support. | 3.2857 | .15723 | 1.01898 | 65.714 | 2.9682 | 3.6033 | 8 |
| 11. | Indirect guarantees for operating income and stand by loans | 3.0000 | .16344 | 1.05922 | 60.000 | 2.6699 | 3.3301 | 14 |
| 12. | Corporation tax exemption to class commitment. | 3.0952 | .15916 | 1.03145 | 61.904 | 2.7738 | 3.4167 | 11 |
| 13. | Commercial freedom Guarantees. | 3.3810 | .17361 | 1.12515 | 67.620 | 3.0303 | 3.7316 | 7 |
| 14. | Rate interest compensation . | 3.3333 | .15113 | .97946 | 66.666 | 3.0281 | 3.6386 | 6 |
| 15. | Reduction of incidents of unsecured force majeure | 2.9524 | .14836 | .96151 | 59.048 | 2.6528 | 3.2520 | 15 |
| 16. | emphasis on non-rival projects | 2.5952 | .14483 | .93859 | 51.904 | 2.3028 | 2.8877 | 18 |
| 17. | The host government Contributions coming from the exsisting assest | 3.9286 | .14616 | .94721 | 78.572 | 3.6334 | 4.2237 | 2 |
| 18. | The government's commitment to the conclude of projects within a reasonable period of the government. | 2.9286 | .17837 | 1.15596 | 58.572 | 2.5683 | 3.2888 | 16 |
| 19. | Financial support Subsidy | 3.4286 | .18079 | 1.17167 | 68.572 | 3.0635 | 3.7937 | 5 |