International Journal of Management Science and Business Administration

Volume 8, Issue 5, July 2022, Pages 57-65
DOI: 10.18775/ijmsba.1849-5664-5419.2014.85.1005
URL: https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.85.1005

The Role of the Public-Private Partnership (PPP) in Achieving the Optimal Economic and Social Benefits Through the Port Sector

[1] Faisal Amur Said Hamed Al Habsi, [2] Asad Ullah
[1] Department of Post-Graduation Studies, Middle East College, Muscat, Oman
[2] Assistant Professor, Department of Management studies, Middle East College, Muscat, Oman

Abstract: PPP model is very essential for the success of any partnership between the public and private sector. In this review the types of the PPP models will be analysed, evaluated and proper models will be highlighted. The literature will provide sufficient information about the PPP in one of the developing countries and will also highlight on the work that has been done previously and make proper evaluation of the current situation. This paper presents a theoretical and critical review of the past studies in the PPP program, along with a revision of the outcome and conclusion. The findings of the study suggest that implementation and use of PPP has a significant economic impact on the port sector as it leads to the creation of jobs, can mobilize more financing techniques for infrastructure and multi payment options. The PPP focus more into the efficiency gains, rather than focusing on the expansion of the infrastructure which achieve the best value for money for the government and prevent overspending.

Keywords: PPP (Public Private Partnership), Economy, Social Benefits, Sea Ports, Government

1. Introduction

The Public-Private Partnership take more than one shape and each type used to tackle one or more issue. This wide range of the solutions provided by the PPP makes it desirable tool that governments are to adopt to overcome the shortage of resources. In general scope the PPP is used to support the injection of the capital from the private sector when the budget of the country is limited and subject to prioritization. In such case the utilization of the private sector capital on the projects which lead to acceleration on providing the project construction along with the delivery of the services (ppp.gov, 2021).

The PPP models also known as (contractual agreements) is a reflection of the shared risks and roles between the government entity and the private sector proponent. The PPP risk is shared between the public and private sector where the public sector provides some guaranties to attract the investors. The variants models used in the PPP projects can be structures in a concession or availability terms. The diversity of the PPP models is not exhaustive, there is forms of the arrangements could be qualified as PPP model under the BOT law but this is subject to the approvals guaranteed by the government authority. The variety in the PPP models have been developed to tackle specific requirement depending on the nature of the business and the requirements of the public entities, in some large-scale projects more guarantees are required from the public sector because its involves long-term relationship and it required huge amount of capital investment (ppp.gov, 2021).

2. Literature Review

2.1 Public-Private Partnership (PPP):

According to Bartosz Mysiorski “The PPP program represent a range of potential relationships between both public and private in the context of infrastructure and other services. Other terms for this specific activity can include the usage of private sector participation (SPS) or the privatization” (Bartosz Mysiorski,2015). PPP has good history in the developed countries like US and EU while being newly development in some other countries. The guidelines of the

PPP have been designed to introduce the program to be a key participant in the development of the public sector by giving the opportunity to structure the PPP scheme and integrating the grant financing (Guy Crauser, 2002). The use of the concept of PPP in the developing country in this research started since the 1990s, however these practices have been done without the use of specific framework. The power and water sectors are the first sectors which used the PPP implication – but this was used without using specific regulation or structure.

This new law supports the new directions toward the diversification and economic liberalization and institutional reform. This new direction came as a result of the economic difficulties and become amendatory to build confidence in the market and attract foreign investments. The government of this country is looking to use the PPP program to attract investors in many sectors like the healthcare, education, transport and information technology (Thomas Wigley, 2021).

After analyzing the history of the public private partnership application in the country, I believe that the early start of using the concept in the power and water sector has good impact on the decision making and come out finally by establishing the PPP role. The need for PPP for country is mandatory, because of the lack of financing resources in the first place and due to the lack of the wise management of resource. The PPP considered a good option helps in optimal use of resources and provide better quality services with better price for users. In general, the new PPP roles and the transparency will play significant role in retaining the investors' confidence (Author, 2022)

2.2 Economic Impact of the PPP Projects in the Port Sector

There are many benefits has been recognized by the researchers when it comes to the PPP. The PPP can mobilize more financing techniques for infrastructure and multi payment options. The PPP focus more into the efficiency gains, rather than focusing on the expansion of the infrastructure which achieve the best value for money for the government and prevent the overspending. The PPP is financing the public infrastructure projects but not funding them, also the most valuable contribution for the PPP is the efficiency gains expected in the services delivery. The following represent the main efficiency drivers gained by implementing the PPP (WBG, 2016):

1-The market sounding which make special assumptions for the sake of testing the ability of attracting private financing. This can benefit when it is linked with the project selection, as the risk is carried out by the investors, the less profitable projects sometimes fail to reach to financial closure.

2-The handling of the construction, maintenance and operations, the cost of the life cycle will be optimized by better quality infrastructure and sufficient maintenance, and this will lead to more efficiency gains. The integration motivates all parties to deliver his role in a way that achieve cost reduction.

3-The allocation of the risk to the private investor, which is normally in better position to manage it, this can reduce the overall cost of the project. The risk related to the infrastructure projects are normally high, therefore the managing this risk effectively is significant.

4-The ability of the PPP arrangements to link the payment and penalties to the performance of the services and assets can provide significant impact on the cost reduction attempt.

5-The PPP normally focus on the output rather than proposing inputs, this motivates to use more innovative solutions which maximize gains.

2.3 The Impact of the PPPs on Efficiency Gains in the Provision of Infrastructure Assets and Services

The main valued gain of the PPPs is the efficiency in providing the services and ultimate use of the assets. These gains normally measured by output to input ratio; this ratio can be improved when better utilizing the resources (input) to produce more output. In some cases, the produce same output but the utilize less inputs (cost). Based on an experimental analysis using series data from 32 countries in the period between 1995 and 2006, Anders et al. (2013) concluded that the impact of the private sector participation in the quality of services and the utility of resources is positive. The labor productivity also has increased compared with the public sector labor, all these are guided with strong and well-designed regulation. The study did not distinguish among the different types of private sector participations (PSP). The study used information from 181 firm in more than on category and field. The PPP can positively impact the utility of the available ports. The government has invested huge amounts of money in construction of the fisheries ports, however, there is no commercial use of these ports until now. The earned value is limited and there is lack of basic requirement of the fishing activities. The PPP can offer good solutions to the government to best utilize these ports and achieve better economic impact (Author, 2022).

2.4 The Impact of PPP on Jobs

The productivity of labors in the PPP has direct impact on the efficiency which is considered one of the biggest benefits of the program. The productivity of the labor is result of the capability of one labor to perform more tasks than normal labor in public sector or in less time. The relationship between the PPP and jobs creation is positive and this take in consideration the direct and indirect jobs. The PPP contribute to the full utilization of the available infrastructure and creating new activities and attract diversified business. This enormous activity directly impacts the job creation and lead to hiring more labor. The opportunity behind implementing the PPP is clearer when the variety of activities are handled and developed by the private investors compared by the public sector. Also, the ability to create new opportunities become larger when it compared with public sector which is not profit oriented sector (Luis, Dan and Matias. H, 2013).

2.5Ports Sector PPP Models

The implement of the PPP in ports sector can take a number of different models, all of this will depend on nature of the involvements of the public and private sectors. As main purpose of implementing the PPP is to transfer the responsibilities and risk which is related to the financing and operation from the public to the private sector. The level of risk sharing is different from model to another, basically there are fore models that shape the partnership between public and private sector (Author, 2022).

2.5.1 The Public Services Port Model

In this specific model, the authority (public sector) has the ownership over the infrastructure and equipment of the port and perform most of the port related services. The role of private sector in this model is limited to provide the secondary activities and operations. The leadership in this model falls under the public authority which also has the right of decision making. Even though this model can lead to logical intensive decision making, however, it normally suffers from inefficiency and lack of experience (ISDB, 2019).

2.5.2 The Tool Port Model

This model is basically like the Public Services Port model, the slice different is that the private entity is responsible for handling the operations of the cargo. In normal situations, this model used as middle step between Public Service Port to Landlord Port. The investment in this model is managed by the public entity, on the other hand, the experience of the private partner is utilized in mutual coordination in choosing the infrastructure and equipment chosen. The role of the private sector is to handle the cargo and contribute to the port organization (Civils daily, 2020).

2.5.3 The Landlord Port Model

This model is commonly used in PPP, the whole terminal in this case is leased by concession to entities from the private sector. The public sector authority is only retaining by the ownership over the land. On the other hand, the private sector retains the ownership over the operations.

The Landlord model is the most common model used in the ports sector, the development responsibilities are clearly decided between the public and private sector. This approach gives the private investors the freedom to meet the customers' demands and balance the scarcity of resources with the returned-on investment. However, since the public entity has the management role over the port, this can put some pressure and limit the ambition of the private sector plans for the port (ISDB, 2019).

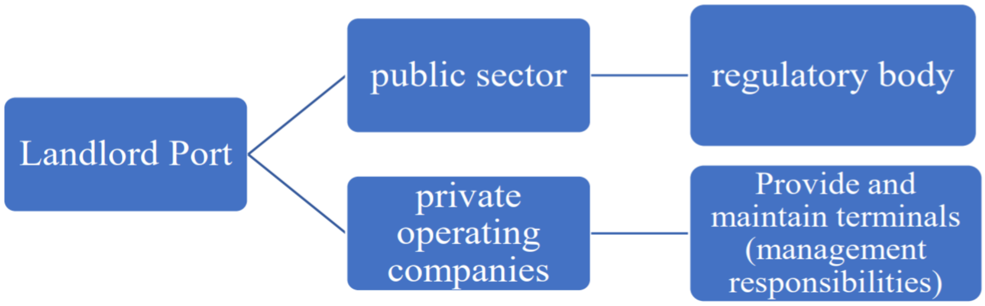

Figure 1: Landlord Port Model Role Allocation (ISDB, 2019)

2.5.4 The Private Service Port Model

in this model the term of complete privatization is applied. The full authority of the port is shifted to the private sector, while the public sector become as regulatory. However, the public sector in some cases can become a shareholder. This model of PPP in Port sector is not commonly used. This model of PPP enables the private contractor the right to invest in developing the full area of the port and construct the required infrastructure without government intervention (ISDB, 2019).

2.6 Risk Factor of PPP Models

One of the main targets of governments when implement the Public Private Partnership as strategic tool is to reduce the risk related to the management of the Ports. The different PPP models are giving the government more flexibilities in implementing the program, the best model is normally decided based on the intended objectives of the public entity. There is positive relationship between the private sector risks and the level of regulatory required. Once the risk is high on the private sector, this mean more flexibility should be given and more important the regulations become.

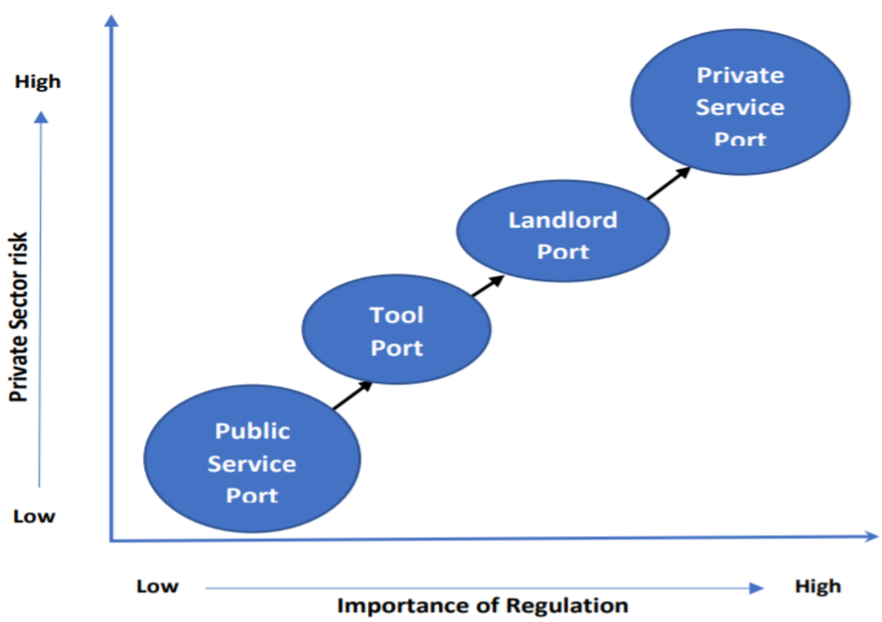

Figure 2: Public Private Balance of risk and regulation allocation (trade.gov, 2022)

In some cases, these models used as mixed approach where the government work to tailor two or more models together and implement to serve his purpose. The nature of the economic practices and also the ability of the country to attract international investors has big impact on the model applied. The financial situation forced some countries to run behind international money and facilitate more for foreign investors (Author, 2022).

2.7 PPP Types of Contracts

The forms of the Public Private Partnership are varying in conditions, depending on the context, projects, parameters, level of risk, outcome, and investment. This variety leads to producing many types of Public Private Partnership contracts. This specific section will elaborate on the contract types that can be used in ports sector (Author, 2022).

2.7.1 Management Contract

In this arrangement, the authority (public sector) award the contractor to manage certain activities for short period of time. The contracted period normally varies from 3 to 5 years. These contracts are more focused on tasks rather than outputs.

2.7.2 Leasing Contract

This type of arrangement the private sector mainly responsible for the maintenance and operation of the facility. However, the public entity is the one who is responsible for the financing. This type of arrangements normally arranged for longer period from 8 to 25 years (ISDB, 2019).

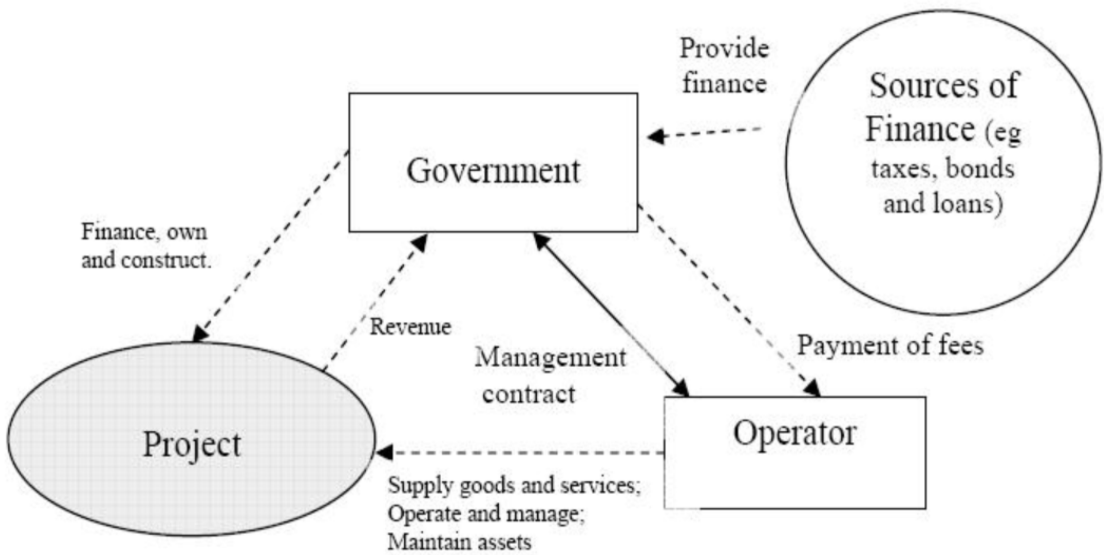

Figure 3: Public Private Balance of risk and regulation allocation (Civils daily, 2020)

2.7.3 Rehabilitate, Operate and Transfer (ROT)

This type of arrangement used by the public sector when the facility is dilapidated and need rehabilitation. In this case the private contractor is responsible for the rehabilitation and upgrading the facility if required. The financing requirements under the shoulders of the private contractor, this lead to make the contract duration is longer and varies from 20 to 30 years. The private sector responsible for the operations of the facility only and the facility management comes back to the public sector after the contract duration finish (ISDB, 2019).

2.7.4 Rehabilitate, Lease/Rent and Transfer (RLRT)

This arrangement enables the private contractor to make the rehabilitation to the facility at his own risk, and when it is ready this rent it. The facility will be fully under the contractor management, and he is responsible for the maintenance (Civils daily, 2020).

2.7.5 Merchant

This PPP contract arrangement gives the private contractor the right to establish a new facility in a liberalized market. In this type of contract, the private investor (developer) secures the required financing and then operates the whole project. The government does not provide any guarantees on the revenue or payments, so the full risk falls under the private contractor's responsibility. The duration of such contracts normally takes long period from 20 to 30 years (Civils daily, 2020).

2.7.6 Build Rehabilitate Operate and Transfer (BROT)

In this contracting arrangement, the private contractor whether builds add-on to a facility that's already existing or complete uncompleted existing facility. Also it can mix between rehabilitation and building new facilities. The developer (private contractor) in this arrangement is responsible for the operation and maintenance of the facility during the contracting period which normally is a long period. The developer also responsible for the whole risk of the project.

2.7.7 Build Operate and Transfer (BOT)

In this contracting arrangement the developer is responsible for building a new facility at his own risk. During the contracting period which normally is long period to achieve return on investment, the developer is responsible for the operations and any risk related. After the contract period finish the developer is responsible to transfer the ownership of the facility to the government (WBG, 2015).

2.7.8 Build, Lease and Own (BLO)

In this contracting arrangement, the developer is responsible for satisfy a need by building new facility at his own risk in most cases. The ownership of the facility transfers directly to the government after its completed, and the same contractor leases this facility from the government for agreed period of time which normally is very long. At the end of the agreed lease period, the ownership of the facility will be shifted to the same developer (ISDB, 2019).

2.7.9 Build, Own and Operate (BOO)

This contracting agreement allow the private investor from building new facility, take the ownership over it and operate it at his own risk. This type of PPP normally take place in greenfield and has advantage of long-term contracting period (WBG, 2015).

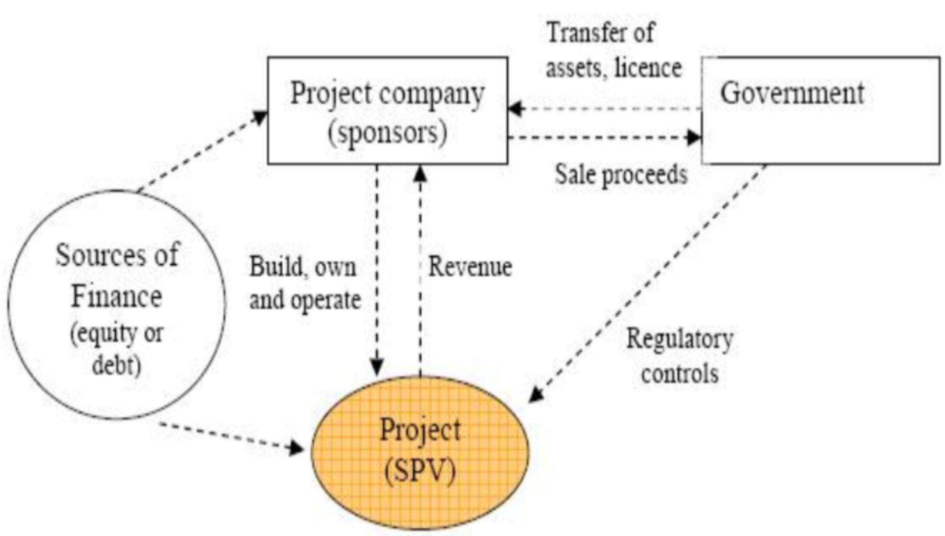

Figure 4: Private ownership of Assets (Civils daily, 2020)

2.7.10 Build Own Operate and Transfer (BOOT)

This contracting arrangement but the whole risk on the private contractor. This type of PPP starts by building a facility and owning it at the risk of the private contractor. Then the same contractor is responsible for the operations during the contract period until transferring the facility to the government.

2.7.11 Partial Privatization

This contracting arrangement require more attention from the government in continues base. The government in this model is responsible for the function while authorizing the private sector to provide the services. This contracting arrangement normally takes shape of long-term contracts last for more than 30 years (ISDB, 2019).

2.7.12 Privatization

In this contracting agreement all the government assets in specific filed or sector are transferred to the private sector. The privatization normally considered an involvement form the private sector in utility rather than a concession (WBG, 2019).

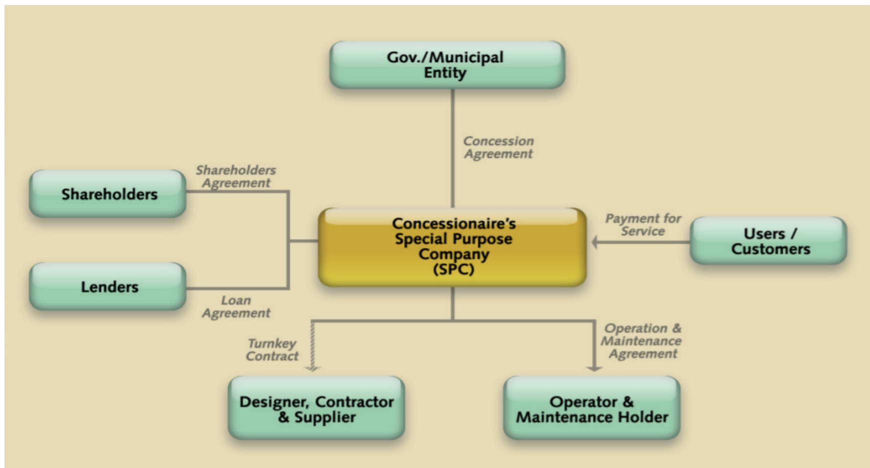

Figure 5: Public Private Balance of risk and regulation allocation (Ppiaf, 2009)

2.8 PPP Types of Contracts Main Features

Types of PPPs	Mode of Entry	Operation and Maintenance	Investment	Ultimate Ownership	Duration (years)
Management Contract	Contract	Private	Public	Public	3-5
Leasing	Contract	Private	Public	Public	8-15
Rehabilitate, Operate and Transfer (ROT)	Concession	Private	Private	Public	20-30
Rehabilitate, Lease/Rent and Transfer (RLRT)	Concession	Private	Private	Public	20-30
Merchant	Greenfield	Private	Private	Public	20-30
Build, Rehabilitate, Operate and Transfer	Concession	Private	Private	Public	20-30
Build, Operate and Transfer (BOT)	Greenfield	Private	Private	Semi-private	20-30
Build, Own, Operate and Transfer (BOOT)	Greenfield	Private	Private	Semi-private	30+
Build, Lease and Own (BLO)	Greenfield	Private	Private	Private	30+
Build, Own and Operate (BOO)	Greenfield	Private	Private	Private	30+
Partial Privatization	Divesture	Private	Private	Private	30+
Privatization	Divesture	Private	Private	Private	Indefinite

Table 1: PPP types of contracts main features (Author, 2022)

3. Methodology

This section presents a description of the research process followed in this research and how the data was collected to identify papers relevant for this study. As the first step the research questions addressed by this study are:
RQ1.What are the key concept of Public Private Partnership?
RQ2.What are the various PPP models in the Port Sector?
RQ3. What are the Economic and societal impacts of PPP implementations?

The followed step was to define the inclusion/exclusion criteria: (1) Search limitations to papers, (2) considering only papers written in English language, and (3) Exclusion of papers not accessible as full text.
For the next step, data collection, the keywords used were defined as: PPP (Public Private Partnership), Economy, Social Benefits, Sea Ports, Government. Then used to search them in online journals databases and scholarly databases (Emerald insights, Taylor and Francis Group) and also Google Scholar. The keywords should be found in the paper title, paper keywords and/or paper abstracts. Then the papers were read to assess their relevance and contribution to the present study, and as a final step the discussion of the findings for the future work.

4. Conclusion

From the above discussion and significant review of the literature it can be said that the implementation of the public private partnership (PPP) program can be seen as a tool to overcome the challenges faced by the developing countries in their infrastructure development, sourcing of financial resources for the development and advancement of seaports etc. The researchers have also pointed out many benefits of the use of PPP models, like it can help in mobilizing more financial resources for infrastructure development leading to gain in the efficiency. It can also positively impact the utility of the available ports in developing countries. Furthermore, it has been established that the productivity of labors in PPP has direct impact on the efficiency and as a result considered one of the biggest benefits of the program. The PPP contributes in the fuller utilization of the available infrastructure and creates new activities which helps in attracting diversified business.

5. Limitation and Future Research

Inherent limitations associated with any single study provide avenues for future research. This paper uses a qualitative approach. Therefore, one direction consists of empirically testing the generalizability of the proposed findings. Another problem is that the interpretations are limited and personal experience and knowledge influence observations and conclusions.

References

- Bartosz Mysiorski, (2015) [online] available from https://alebank.pl/eds-raport-partnerstwo-publiczno-prywatne-w-rewitalizacji/?id=55998&catid=933 [25 December 2021]
- Civils daily, (2020) Public Private Partnership Models: Contracting, Build Operate Transfer, Design Build Finance Operate (DBFO), Concessions, Build Operate Transfer, EPC Model, Swiss Challenge Model, HAM [online] available from https://www.civilsdaily.com/public-private-partnership-models-contracting-build-operate-transfer-design-build-finance-operate-dbfo-concessions-build-operate-transfer-epc-model-swiss-challenge-model-ham-model/ [22 February 2022]
- Guy Crauser, (2002) GUIDELINES FOR SUCCESSFUL PUBLIC – PRIVATE PARTNERSHIPS [online] available from https://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf [3 January 2022]
- Isfu, (2019) Vision Document [online] available from https://isfu.gov.om/2040/Vision_Documents_En.pdf [5 February 2022]
- Islamic Development Bank, ISDB (2019) Public Private Partnership (PPP) for Ports Development and Operation [online] available from file:///C:/Users/Mohammed/Desktop/MBA/%D8%B1%D8%B3%D8%A7%D9%84%D9%87/chapter%202/PPP%20for%20Ports%20Development%20and%20Operation_Final%20Report_.pdf > [28 February 2022]
- Luis, A. Dan, B and Matias. H, (2013) Reducing Poverty by Closing South Asia's Infrastructure Gap [online] available from https://www.worldbank.org/content/dam/Worldbank/document/SAR/Reducing%20Poverty%20by%20Closing%20South%20Asia's%20Infrastructure%20Gap_Web.pdf > [6 March 2022]
- Masoud, Q (2022) fisheries ports and PPP in Oman [interviewed by Faisal Al Habsi], 2022
- Mjla, (2019) Royal Decree 52/2019 Promulgating the Public Private Partnership Law [online] available from file:///C:/Users/Mohammed/Downloads/2019-0052%20Formatted%20(1).pdf [5 January 2022]

- PPP.gov, (2021) What is PPP? [online] available from https://ppp.gov.ph/ppp-program/what-is-ppp/#:~:text=Public%2DPrivate%20Partnerships%20(PPPs),services%20traditionally%20delivered%20by%20government [25 December 2021]
- Thomas Wigley, (2021) Oman: The Implementing Regulations of the Public Private Partnership Law [online] available from https://www.trowers.com/insights/2020/june/oman-the-implementing-regulations-of-the-public-private-partnership-law [3 January 2022]
- Trade.gov, (2022) Colombia - Country Commercial Guide [online] available from <https://www.trade.gov/knowledge-product/exporting-colombia-market-overview?section-nav=5277 > [25 February 2022]
- WBG, (2016) The Economic Impact of Public-Private Partnerships in the Infrastructure [online] available from https://library.pppknowledgelab.org/documents/2384/download > [5 March 2022]
- World Bank Group, WBG (2015) Sustainable Management of the Fisheries Sector in Oman A Vision for Shared Prosperity [online] available form < https://documents1.worldbank.org/curated/en/901371480601979449/pdf/110678-WP-Summary-Oman-Fisheries-PUBLIC.pdf> [20 February 2022]
- World bank, (2020) Government Objectives: Benefits and Risks of PPPs [online] available from https://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives [25 December 2021]
- World bank, (2020) Public-Private Partnerships (PPPs) – Tools [online] available from https://www.worldbank.org/en/topic/publicprivatepartnerships/brief/ppp-tools [3 December 2021]
- Yousuf, A (2022) fisheries ports and PPP in Oman [interviewed by Faisal Al Habsi], 2022