

# Towards the Determinants of Successful Public-Private Partnership Projects in Jamaica: A Proposed Methodology



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**Abstract** The Caribbean countries have a relatively large infrastructure deficit that has affected their economic growth. Infrastructure is essential for growth by providing critical services and facilities. Infrastructure is a major determinant that drives competitiveness, and as such is vital if these economies are to become competitive, grow and developed. Undoubtedly, investing in infrastructure is beneficial for developing countries, but such initiative is usually accompanied by high costs. Mobilizing financial resources needed for infrastructure investment can be challenging for governments in developing countries, with Jamaica being no exception. Public-private partnerships (PPPs) have become alternative ways of raising needed funds for capital intensive public projects, thereby providing a unique solution to speed up infrastructure development. However, the success of these initiatives is inconclusive. Hence, this study seeks to propose a research methodology to assess the major determinants of successful implementation of PPPs in Jamaica. It is hoped that the study will provide useful insights which can assist decision makers in their desire to implement successful PPPs and by extension promote economic and social development in Jamaica.

**Keywords** Economic development · Infrastructure · Jamaica  
Public-private partnerships · Nominal group technique

## 1 Introduction

Most governments in the Caribbean are struggling to improve their infrastructure due to huge debts, lagging economies, and tight budgets [1]. Jamaica, a small island in the Caribbean is no exception. The country's debt to gross domestic product (GDP)

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ratio represents one of the highest in the world [2]. Its foreign exchange rate against the United States (US) dollar is very low at 129:1 and unemployment rate stands at 13.7%. In essence, the country faces tremendous constraints in human and financial resources.

But investment in infrastructure is essential for a nation's growth and development [3]. However, such investments usually require huge financial outlay [4]. This condition can be challenging for a country like Jamaica, which faces severe constraints [5]. Public-private partnerships (PPPs) have become alternative ways of raising needed funds for capital intensive public projects [6, 7], thereby providing a unique solution to speed up infrastructure development [8]. They have helped improve the infrastructure and service delivery in both developed and developing countries [9, 10]. PPPs are expected to bring a variety of benefits to the government by making use of the private finance for the development of public infrastructure [11]. These partnerships have led to considerable poverty reduction and sustainable development [12].

Public-private partnership is defined as an agreement between the government and one or more private partners (which may include the operators and the financiers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners [13]. Although the literature makes reference to the benefits of PPPs [12], their success is believed to depend on the management of the contract and the inherent risks of such projects [14].

Poor governance, lack of policy framework and lack of transparency hinder the success of PPPs in developing countries [15]. In addition, political interference in the tendering process is a major hindrance to the success of PPPs. In general, governments need to build political support for PPPs to reduce interference by political players [15]. In terms of the lack of transparent legal frameworks to govern the management of PPPs, a study found that most developing countries lack policy and legal frameworks to guide the successful implementation of PPP projects [16]. There is the notion that institutions in developing countries usually have weak governance structures [17, 18]. As a result, it has been found that corruption and mistrust among shareholders can affect the successful implementation of PPP projects in developing countries [16].

The findings in the literature regarding the benefits of PPPs is inconclusive [19]. In addition, there is relatively little research in this domain in Jamaica. As a result, this study seeks to propose a research methodology to assess the major determinants of successful implementation of PPPs in Jamaica. Hence the following research questions:

- What policies are in place to govern the contracts issued under PPPs in Jamaica?
- What are the major determinants of successful PPPs implementation in Jamaica?

It is hoped that the study will provide useful insights which can assist decision makers in their desire to implement successful PPPs and by extension promote economic and social development in Jamaica.

## 2 Literature Review

The Caribbean countries, which are classified as developing economies, have a relatively large infrastructure deficit that has affected their economic growth [1]. Infrastructure is essential for growth by providing critical services and facilities [3]. It is defined as the basic physical and organizational structures and facilities like buildings, roads and power supplies needed for the operation of a society or enterprise. Infrastructure is listed in the global competitiveness report as a major determinant that drives competitiveness [20]. Interestingly, Jamaica is ranked 86th in the global competitiveness report, with infrastructure scoring the third lowest of the basic requirements at 3.8 on a 1–7 scale [20]. This score, which is just above the mid-point, indicates that Jamaica's infrastructure is not well established and advanced.

In the midst of this challenge in Jamaica there is the notion as stated by [3] that, “economic infrastructure keeps the country running. The nation needs power plants to fuel its homes, offices, industries, and support services, such as street lighting, and security systems. It needs roads, railways, airports and ports to move people and commodities and it must have good communications. The availability of infrastructure is a key factor for companies when making decisions on where to invest” (p. 5).

Undoubtedly, investing in infrastructure is beneficial for developing countries due to their characteristics of huge debts and tight budgets, but such initiative is usually accompanied by high costs [4]. Mobilizing financial resources needed for infrastructure investment can be challenging for governments in developing countries, with Jamaica being no exception. Public-private partnerships provide a unique solution to speed up infrastructure development [8]. But proper management and efficient utilization of the infrastructure is needed if economies in the Caribbean want to become competitive, grow and attain sustainable development [1, 21].

This is even more relevant in the case of Jamaica which suffers from scarce resources and low economic performance. The economic measures in Jamaica as distilled by the [22] are:

- Currency = US \$1 = J \$128
- GDP per capita (US \$) = 5,003.8
- Unemployment (% of labour force) = 13.7
- Labour force participation (female/male %) = 57.6/72.1
- Balance of payments (million US \$) = -1,110
- Tourist arrivals at national borders (000) = 2,080.

There is a widely held view that economic infrastructure is a strategic issue because it leads to competitiveness [3]. As a result, efforts were made to speed up the implementation of infrastructural development projects and by extension increase the economic performance of the country. So in August 2011, Jamaica's Investments Division of the Ministry of Finance and the Economy established a PPP Unit as part of an initiative to promote public–private partnerships in Jamaica. In 2012, the Government of Jamaica (GOJ), established a Policy and Institutional Framework for the

implementation of a PPPs programme in the country. PPP as distilled by [23] is “a long-term procurement contract between the public and private sectors, in which the proficiency of each party is focused in designing, financing, building and operating an infrastructure project or providing a service, through the appropriate sharing of resources, risks and rewards” (p. 5). The literature makes reference to four types of PPPs. These are: design, build and finance (DBF); design, build, finance, operate and maintain (DBFM); design, build and operate (DBO); and concession PPPs.

In September 2012, the Cabinet approved the Jamaican PPP Policy, which sets out the principles that should guide decision-making by Ministries, Departments and Agencies which are considering utilising PPPs to improve infrastructure and the delivery of public services. In summary, the Jamaican government turned to PPPs as a means to overcome the deficits in infrastructure needs. Private companies have undertaken development projects in the ailing infrastructures in the energy, transport, and water sectors [1]. These sectors are important for economic growth and their improvement can have a significant impact on the Jamaican economy. The country requires transport infrastructure to hasten economic growth while facing tight budgetary constraints. By leveraging PPPs, Jamaica has embarked on projects to improve the transport infrastructure as a way of improving tourism and economic growth. Some examples include the Sangster’s International Airport, the Port Authority and the Highway Facility.

This decision to embrace PPPs in 2011 gave Jamaica the platform to institutionalize the required policies, roles, dedicated units and staff in place to properly manage and monitor the implementation of PPPs. Table 1 outlines the strategic moves that has been made by the Jamaica government to this end. Both Jamaica and Trinidad and Tobago are somewhat advanced in setting up established policies, procedures and structures to effectively manage PPPs.

Although tremendous gains can be achieved through the implementation of PPPs, the success of these projects are inconclusive [19]. Poor governance, lack of policy framework and lack of transparency hinder the success of PPPs in developing countries. In addition, corruption and mistrust among shareholders can affect the successful implementation of PPP projects in developing countries [16]. In the Corruption Perception Index Report 2016, Jamaica was ranked 83 out of 176 countries behind the Bahamas, Barbados, St. Lucia, St. Vincent and the Grenadines, Dominica, Grenada and Cuba [25]. Due to the high likelihood of corruption and political interference in Jamaica, it is quite possible for PPPs to fail than succeed in the country.

One of the main reasons for engaging in PPPs in developing countries is to raise capital required for infrastructure projects [12]. The North Luzon toll way in Philippines raised approximately US \$371 million through PPPs. The Colombo Port project in Sri Lanka raised \$175 million through a build-operate-transfer PPP contract [15]. The bulk terminal project raised US \$7.5 million through a build-operate-transfer PPP contract in Ethiopia [15]. By 2013, 15 transport infrastructure projects in Turkey had been financed through PPPs [26]. According to [10], over US \$6 billion had been spent to finance transport projects in South Asia through PPPs by 2007. As indicated in the above studies, governments in developing countries can offload the financing burden to the private sector.

**Table 1** Public-private partnership architecture in the Caribbean

**Figure O.2: Limited PPP Policy and Institutional Architecture in the Caribbean**

	Policy	Law	Detailed Guidelines	Defined Roles	Dedicated Units(s)	Staff with PPP Experience	Dedicated Project Prep Funding
Jamaica	✓ (2012)	✗	Underway	✓	✓ (DBJ & MOF)	🟡	✗
Trinidad & Tobago	✓ (2012)	✗	Underway	✓	✓ (MOF)	🟡	✗
Dominican Republic	✗	✗	✗	✗	✗	🟡	✗
Haiti	✗	✗	✗	✗	✓ (MOF)	🟡	✗
Suriname	✗	✗	✗	✗	✗	🟡	✗
OEC States	✗	✗	✗	✗	✗	🟡	✗

✓ In place (date) ✗ Absent 🟡 Low 🟢 Moderate 🟣 High; Development Bank of Jamaica (DBJ); Ministry of Finance (MOF)  
 Source: Authors, based on Castalia and World Bank research

Source [24]

It is important to note that the outcome of a given PPP project depends on the strengths and weaknesses encountered. Project teams have the responsibility of identifying inherent challenges and successes at the beginning of the project to avoid negative results upon completion. It is posited that the determinants of successful PPP projects are contractual arrangements, project characteristics, project participants and interactive processes [27]. Contractual arrangements refers to contract type, award methods and risk allocation. Project characteristics refers to issues such as political and economic risks. Project participants are concern about inter-organizational conflicts, while interactive processes refers to the facilitation of effective coordination throughout the project life [27].

It is believed that high quality service should be the basis of all exchanges [28]. However, the common problems among stakeholders are high costs of tendering, cost restraints, complex negotiation, and conflicting project objectives [14]. Participation in core public activities and sufficient rewards are the main causes of conflicting project objectives. Identifying these issues early enough helps avoid conflicts that may arise when commissioning the project. The impact of the project may also be affected by the cost of maintaining and operating the facility as high operation and maintenance costs can affect the efficiency of the facility eliminating its intended impact.

A case study by [29] on telecommunication PPPs in Lebanon illustrated the importance of efficient management of PPPs. According to the study, the government had to maintain its involvement in the partnership and a transparent regulatory framework had to be established. In Lebanon, poor management made telecommunication companies exceed subscriber limits, evade fees and taxes, and provide poor network coverage.

An analysis of PPPs by [30] indicated that PPP projects can fail when the private contractors fail to transfer risk. This forces the government to bear the major cost of the project leading to failure of the project. As the economy recuperates from the effects of the financial meltdown, the Jamaican government is willing to absorb some of these risks and costs, but the government would like these occurrences to be as minimal and as seldom as possible.

### 3 Methodology

This is an exploratory study in which both primary and secondary data will be used. The primary data will be obtained from focus group sessions while the secondary data will be gathered from the Contractor General Report, the Auditor General Report the Statistical Institute of Jamaica Report and the literature review. The purpose of the secondary data is to assess the management, performance and outcome of the respective PPP projects, as well as findings from the literature regarding the determinants of successful PPP projects. These determinants—contractual arrangements, project characteristics, project participants and interactive processes—will form the basis of the initial discussion in the focus group sessions.

The purpose of the focus groups is to capture the views of key personnel involved in the implementation of the relevant PPP projects. The focus groups, supported by the nominal group technique, will be conducted with project sponsors, project managers and project administrators in Jamaica. The targeted participants will be the Contractor General, project sponsors and project managers who are involved and knowledgeable about a recently implemented PPP in Jamaica. The main objective of these focus groups is to ascertain from participants what they believe are the major determinants to deliver successful PPP projects. In doing so, information will be gathered regarding the management and outcomes of projects before the PPP policy and after the policy. A comparative analysis will be conducted with similar type and size PPP projects before 2012 and after 2012. It is hoped that the performance and outcomes of these projects before 2012 and after 2012 will be explored. Ethical approval will be sought to conduct this study and privacy will be maintained.

The initial questions to stimulate the discussion in the focus group will be pre-tested by about three project managers at the University of the West Indies. The selection of the University of the West Indies is based on convenience. However, effort will be made to ensure that the selected individuals are experts and quite knowledgeable about the implementation of PPPs. Relevant adjustments will be made to the questions regarding the wording, compound questions, ambiguous questions, number of questions, and similar concerns.

The scope of the study will be infrastructural projects throughout Jamaica. Letters of consent to participate in the study will be sent to potential participants. Based on the feedback, those persons who are willing to participate will be invited to a focus group session. Permission will be sought to record the sessions in an effort to capture all pertinent information and possible quotations.

Focus groups will be used to arrive at consensus on the determinants of successful PPPs implementation. A focus group approach will be taken because it is considered a cost-effective and efficient way to collect insights from experts in a domain of interest [31].

There are two commonly used group decision techniques to enable and improve group decision-making processes, namely the Delphi technique and the nominal group technique [32, 33]. The nominal group technique (NGT) is selected for this study because it is considered more superior in relation to the other group decision techniques [34]. In comparison to the Delphi technique, the NGT usually contribute to greater objectivity, yield more creative ideas, minimizes opinion differences and consensus is generally agreed on quicker [32, 35]. NGT also minimizes many of the problems that freely interacting groups may experience like group think, free loading and destructive dominance [34, 36].

The NGT process consists firstly of a creative thinking phase, then idea generation phase, followed by evaluation and finally a decision making phase [37]. The detailed procedure is set out below as distilled by [37]:

1. Participants independently and silently generate ideas regarding the problem and its solution in writing on index cards. On 3" × 5" index cards, participants will be asked to silently identify what they consider the major determinants of successful PPPs implementation.
2. Cards are collected by the independent facilitator, shuffled and randomly returned to the participants. In a round-robin format, participants will be asked to verbally state one idea per card until all participants have completed their list of ideas. The independent facilitator will write each idea on a slip chart or white board for visual display to all participants. The purpose of shuffling the cards will be to hide the identity of the person who generated the idea. In addition, the purpose of using an independent facilitator will be to control for researcher biases.
3. Each idea will be discussed for clarification, deeper insights and subsequent evaluation, without lobbying or identifying the originator of the idea.
4. Participants will be asked by the independent facilitator to silently and independently rank and select their major determinants. These major determinants will be written on newly distributed index cards.
5. The independent facilitator will collect the newly completed index cards with the ranked determinants. The cards will be shuffled and the independent facilitator will write the list of ranked determinants per index card on the flip chart or white board. The determinants are tallied and the most frequent determinants identified.
6. Participants will be asked to silently and independently rank these determinants on index cards and return the cards to the facilitator. Again, the facilitator will shuffle the cards and write the top ranked determinants on the flip chart or white board.
7. The top ranked determinants will be tallied. The determinant with the highest score will be presented to the participants as the top ranked determinant, with the determinant with the second highest score being presented as number two, and so forth.

8. Participants will be shown the resulting list of top ranked determinants and their acceptance sought. If there is no consensus, the ranking of the determinants will be repeated until there is consensus.

A pilot study of the procedure will be conducted with a small group of PPP project managers in Kingston. The pilot study will provide the opportunity to assess and refine the NGT process if necessary.

In summary, the NGT has been found to be an effective way to achieve consensus among participants in a group decision setting [37].

## 4 Conclusion

It is expected that the focus group sessions using the nominal group technique will not only be able to identify the major determinants of successful PPP projects but also to arrive at quick consensus on the determinants. Subsequent to the discovery of the major determinants from the focus group sessions, a research model will be formulated. This model will be presented to the research community for further refinement and validation in an attempt to ascertain a reasonable  $R^2$  between the determinants and successful PPP projects. It is hoped that the derived research model will be able to explain a large majority of the variance in successful PPP implementation. Such knowledge can increase the likelihood of implementing successful PPPs, which by extension can lead to the growth and development of Jamaica.

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