The impact of critical success factors (CSF) on the success of public-private partnership (PPP)

تأثير عوامل النجاح الحاسمة (CSF) على نجاح الشراكة بين القطاعين العام والخاص(**PPP**)

by

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Dissertation submitted in fulfilment

of the requirements for the degree of

MSc PROJECT MANAGEMENT

at

The British University in Dubai

June 2019

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ABSTRACT

In the world today, the Critical Success Factors targeted for Public-Private Partnerships is a leading research interest, therefore, this research targets to systematically review studies done previously on the Critical Success Factors for implementing public-private partnership from various selected top-notch academic journals. The results from the previous research indicated an increased area of focus in the public-private partnership and Critical Success Factors exploration since the 1990s. The prevalent identified Critical Success Factors entail risk sharing and allocation, political support, resilient private consortium, sound economy policy, supportive and favorable legal framework, transparent procurement, as well as, public/community support. Furthermore, it was established that china, Hong Kong, Asia among other states have been the countries of interest during the research for CSFs and PPP. The research strategies adopted are questionnaires, case study, and mixed methods. The research findings work to provide a viewpoint of the Critical Success Factors for Public-Private Partnership to enhance implementations in future. Besides, CSFs for PPPs checklist has been designed that could aid in future experimental research.

في العالم اليوم تعد عوامل النجاح الحاسمة المستهدفة للشركات بين القطاعين العام والخاص اهتماما بحثيا رائدا. وبالتالي فإن هذا البحث يستهدف المراجعة المنهجية للدراسات التي أجريت سابقا وأول عوامل النجاح الحاسمة لتنفيذ الشراكة بين القطاعين العام والخاص من مختلف الأكاديميين المختارين من الدرجة الأولى المجلات. أشارت نتائج البحث السابق الى زيادة مجال التركيز في الشراكة بين القطاعين العام والخاص واستكشاف عوامل النجاح الحرجة من التسعينات. تتضمن عوامل النجاح الحاسمة السائدة التي تم تحديدها تقاسم المخاطر وتخصيصها والدعم السياسي واتحاد خاص مرن وسياسة اقتصادية سليمة وإطار قانوني داعم وموات ومشتريات شفافة فضلا عن الدعم العام المجتمعي.

علاوة على ذلك ثبت أن الصين وهونغ كونغ واسيا من بين الدول الأخرى كانت البلدان موانع الاهتمام أثناء البحث عن عوامل النجاح الحرجة والشراكة مع القطاع الخاص.

استراتيجيات البحث المعتمدة هي الاستبيانات ودراسة الحال والطرق المختلطة، تعمل نتائج البحث على توفير وجهة نظر عوامل النجاح الحاسمة للشراكة بين القطاعين العام والخاص لتعزيز عمليات التنفيذ في المستقبل. الى جانب ذلك تم تصميم قوائم مرجعية CSFS لقائمة مراجعة الشراكة مع القطاع الخاص والتي يمكن أن تساعد في البحث التجريبي في المستقبل.

ACKNOWLEDGEMENT

I am obliged to register my sincere gratitude to my research supervisor for his guidance, support and positive critics that made this work a success. Also not forgetting; The British University in Dubai lecturers for taking us through the course works activities. Their wealth of knowledge, experience and understanding contributed significantly to the success of this study.

I wish also to pass my appreciation to my employer, coworkers, and classmates for the immense support during period of the project work and course. Similarly, I wish to appreciate my employer, for granting me this chance to undertake my studies while with them. More so I appreciate the assistance offered by David Musa without which this work would be unmanageable.

To all of whom I have mentioned here and all those who worked towards the realization of this project work in whatsoever little, I am very thankful indeed.

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CHAPTER 1 – INTRODUCTION

1.1.Public-Private Partnership CSF

Critical success factors (CSFs) have elicited major research concern in the area of Public-Private Partnership or PPP. Researchers have carried out and are still carrying out research to analyze the impact of CSFs on the implementation of public projects. In this section, we will extensively evaluate the CSFs and their effectiveness in the execution of PPP projects. The main theme of the paper is literature review, which will entail a review of previous literature, the evolution of PPPs, barriers and challenges facing the running of PPPs, and the factors of success. The paper will extensively evaluate the various success factors that determine the effectiveness of PPP projects related to project financing, regulatory, and technology. The most common CSFs relating to project financing include risk allocation and sharing, macroeconomic conditions, government guarantee, local financial market, financial feasibility, and cost/benefits analysis. In respect to regulatory, the CSFs includes aspects such as political support, a private segment consortium, public/community support, economic policy, transparent and competitive purchase processes, competent agency, and favorable legal structures. The final category relates to technology and the subsets include project technical feasibility, technical innovation, and transfer of technology. All these factors will be evaluated to provide a comprehensive conceptual framework on the impact of CSFs on the implementation and success of PPP ventures. The review is critical in this paper as it will evaluate existing literature on CSFs and help develop a working thesis.

1.2. Background

Public-private partnership can be described as the agreement that the government makes with private companies and service providers to get specified services based on the agreed cost at a specified timeframe (Antillon et al. 2016). This description entails various types of agreements that may lead to obtaining services and vary in sophistication. The services are education or academic services (logistics or services, administration, and maintenance), operation services like effective management and infrastructure (Opara et al., 2017). Most studies have been conducted on the effects of public-private partnership on education services, subsidiaries, school management, and financial institutions.

In most cases, the impact is positive meaning public-private partnership has led to effective service delivery hence increased productivity. It is worth noting that the public-private partnership movement in early1 980s supported the existence of a boundary between the two industries. Essentially, the partnership was a private movement derivative that public transaction occurred to offer quality care and enhancing market competition (Panda, 2016). The Canadian Council for Public-Private Partnerships described public-private partnership (PPP) as the joint endeavor between public and private industry, developing partners expertise, which meets the partnership needs using the suitable resource allocation, reward, and risks.

Shi et al., (2016) believes that public-private partnership is a voluntary agreement between different partners from different industries whereby both agree to work together to achieve their set goals or meet the specific requirement of the shared role, risks, and competencies. Shi et al., (2016) indicated that public-private partnership is a chance of enhancing quality services, improving funding roles, improved quality to enable the government to the government to better its service delivery. Subsequently, it can be noted that public-private partnership is about coordination between different partners like the federal government and private institutions. Public-private partnership is one of the most effective ways of enhancing service delivery in the implementation of public projects.

Cui et al. (2018) indicated that public-private partnership is described based on the manner at which they are managed economically. The public provision is directly controlled by the federal government and cost achieved by tax revenue. On the other hand, private provision income comes from private contribution; in this sense, the cost is determined by services offered. There are fewer institutions that are in a position to satisfy the standards.

The government, in most cases, has been able to subsidize the private industry using the cost payment that is earned from curriculum development, assessment, and training. Some private companies are entirely supported by the government, apart from state-supported to a broad extent, whereas others receive no government help at all. Additionally, in any nation, the case varies for some time, depending on the level or type of project. Even though a simple distinction between different forms of diversity in the industry, from a policy perspective, the difference in usefulness in the evaluation of the system. The expansion using the public system means a direct government responsibility in both finance and project management while expanding using private industry means having an indirect responsibility that is practiced using targeted public resources for project implementation within regulatory guidelines.

According to the study conducted by, Antillon et al. (2016) the partnership is the best technique for the government to accomplish the development of public infrastructure. The partnership is mostly based on the long term engagement that the government and public element participate in accomplishing the nation’s goals. The techniques is used as an alternative source of subsidy for the federal government (Panda, 2016). In the US, studies have revealed that the relationship has resulted in a significant benefit (Rouhani et al., 2016). These studies have also helped in providing a solution to issues affecting public projects. Even though the evidence on if solutions, subsequent whereby both government and market are unsuccessful, it is not clear. The positive effect of partnership is not adequately determined and might not be tested. Shi et al., (2016) the gap on the relationship between PPP do not come out clearly, and there is a need to do more in determining the real impact.

Given that there is a varied nature from the focus that needs to be carried systematically on effect on unique cooperative institutions. In developing nations, involving private sectors is related or linked to the perception that the public sector is not productive, and if left alone, all its projects may not be achieved on time. Moreover, the bureaucracies are not sufficient and responsive; this has led to an increased cost of operations, quality of services, and goods. Another point of view on this debate is that the public sector has to reorient its responsibility on finances and service provision since there is increased in capability from both parties. Loosemore and Cheung (2015), under the partnership, both public and private industry play an essential role in making sure that the projects are appropriately handled and completed on time.

In most nations, Public-Private Partnerships (PPPs) is gaining momentum and is used in financing projects, enhancing effectiveness, production, and minimizing the rate of unemployment. Citizen's interest in PPPs has come from its anticipated significance; the model is believed to enhance service quality and sustainability of the project, cost, and risks minimization that is vital in project implementation. It is also presumed that the private industry in delivering projects that are on time, and the budget can be related to the public sector (Cui et al. 2018). The ability of PPP's in spreading the costs when handling large project over the assets lifetime is one of the most attractive advantages in public sectors that reduce public debt. The public-private partnership is an effective way of realizing value for money (Klijn & Koppenjan 2016).

Private participation in the implementation of the public project has increased in the past few decades across all world, providing services to all communities both from low income and high income. The need for quality services and complete money projects on time has attributed the government to partner with a private organization to offer quality services and project execution. It is vital to note that partnership between private to increased skills and expertise level among project managers. Having competent employees at the work site has helped in enhancing company effectiveness.

In this sense, there is a free flow of information, team members coordinate and corporate well hence accomplishing the project goals. The government has agreed with the private sector; this is the reason why the companies have provided training services. Klijn and Koppenjan, (2016) stated that public-private partnership has a significant effect on the number of public projects completed in North America. Effective and resources accessibility is one of the reasons why companies have adopted the model. Embracing the public-private partnership is vital in including everyone in project development. Low-Income families are allowed to take part in developing the project. The traditional model used in project development tends to excluded others in project execution.

Nonetheless, since the implementation of the model, such issues are no longer experienced. This means that the advantageous groups such as women, poor, and immigrants are allowed to share their views and opinions on the development. The success and execution of the project are measured by the time and resources used. When the public project uses a lot of resources and time, project implementation is considered ineffective. On the other hand, when the public project is completed on time and resources are well used, it means that the project is successful.

1.3. Theoretic model

This paper will be guided by the following theories;

1.3.1. Social Exchange Theory

The social exchange theory was established based on the assumption that the company transaction is vulnerable to interactions and interactions (Blau, 2017). This can also be described as the interrelated or connection sharing the relationship that aims at achieving a certain objective (Cropanzano et al 2017). In this case, the system concept is whereby the company is influenced by both internal and external elements.

On the other hand, the success of a particular firm is based on well it handles or manages its activities. The social exchange hypothesis states that human relationship is determined or established by the adoption of subjective costs benefit assessment and the evaluation choices. This theory is derived from sociology, business economics, and philosophy. It is essential to state that social exchange theory puts into consideration various assumption from the rational alternative hypothesis and structuralism. Cropanzano et al. (2017) posit that the theory is mostly adopted in the business world to mean the two-sided, conjointly dependent, and rewarding procedure that comprises of processes and transactions. The theory can also be related to particular projected time and relationship established by the adoption of the subjective cost-benefit assessment and alternative evaluations.

1.3.2. The Agency Theory

The study was guided agency theory, one of the 1st Capital Market Theory. Scholars have revealed that agency theory is mostly applicable in assessing the implication of PPs. The Public-private partnership researchers adopt this hypothesis to indicate or determine the relationship between variables in the organizations. It also helps them to determine synergistic relations from different firms, such as a course of action (Bosse & Phillips 2016). Gardner (2016) stated that agency theory is the authority methodology where an entity or agent is given the power to act on other's behalf or principal; this is to achieve the principal objectives an aim. Therefore, the agent increases the principal's interest rates and his own in the company.

What is more, the balance of these interests is combined to come to the company objectives using the agent because it has the power to use resources that are available in the company. Rosenbloom (2016) argued that agency theory is vital in business management because the action decided by agents has an impact on different parties. The primary role of the agent is formulating the strategic process that cannot be misjudged. The agency theory supports the idea that the suitable synergy between the management and shareholder work to accomplish their shared goals (Bosse & Phillips 2016).

The company assumptions mostly show a very different association between two groups whereby one group agree with more than one group or the operator with the primary reason of saving costs and skills. The leading groups come to the categorized plan with an operator; at this time, it does not have the aptitude or the resources needed in delivering services in the authoritative areas, particularly in the system. The PPPs scholars stated that the population is carrying the artists as ideologies and the private group as an expert (Gardner 2016). The agency hypothesis is based on two main suspicions; the class of goals between the key group and operator since the utility enhancing action of each group, the data asymmetry is affected by entrepreneurial demeanor.

Due to beforehand stated suspicions, the two party's use their incentives, authority, and the forces for their benefit. It is also essential for these parties to use bargaining skills as a way of ensuring that no party is hurt or affected. The community is the one that is going to benefit from their actions. The project will benefit the community; when the team overspends, it means that people's resources are misused. It is believed that the two parties are not much inclined to experience one party benefit and see the difference the moment that they have a clear promoter, for instance, the agreement shows some firmness, caution and program flexibility.

The agency theory forecast an adverse relation whereby a party joins the course of action to make sure that the process is effective. However, the theory fails to clarify how the process is done and its significance. The most suitable explanation for this is that the assessment and use of agency theory are mostly done by one party. It is believed that the theory gives the best guidance in assessing the relationship between public-private partnerships on the implementation of a public project. The government uses the idea to determine the regulatory framework.

Many researchers have criticized the agency theory. Rosenbloom (2016) gave out some information that contradicted the theoretical foundation. The theory indicates that the association between principle and agent and permits the dishonesty and misuse of money by one agent. They noted that the relationship between partners does not matter and has no impact on the success of the project of the contract. The concepts establish the best example of moral risks that the prevalent element of the principled difficulties.

Rosenbloom (2016) clarifies this by stating that there is some moral commitment that might have dishonored companies in the US, which led to the loss of billions. In this case, agents were busy satisfying their interest at the expense of the company and ignoring the stakeholders. The theory is relevant to the study because it determines the efficiencies of conducting business, and it is affected by PPPs. The agency theory supports the notion that it is crucial to have suitable synergy between the firm managers and the shareholders in working towards reaching their set vision.

1.3.3. The Resource Dependence Theory

The study is also guided by resource dependency theory. According to this hypothesis, there is no company that care gets its resources and capabilities for the sake of survival without associating with other companies or people beyond the set boundaries. The resource dependency theory gives some insight on the inter-company relation and how their formation and its effect on minimizing the uncertainty (Zona et al. 2018). Hitt and Carnes (2016) noted that these type of relationship could only take in some type of uncertainty that the company faces in the business surrounding.

The theory reveals that the resources that an entity has played a vital role in its success. According to the study conducted by Hitt and Carnes (2016), the idea of resources consists of company procedures, information, attributes, capabilities, etc. All these factors all the company executes techniques that help enhance competences and efficiency. The authors argue that the company may have the same type of resources to another, but they carry out their operations differently because of different capacities in the company. They reported that the capabilities are the ability of the company to change resources that were possessed to finished products. The study used this theory because it comprehensively describes the innovative requirements and their effect on private industry participation in the execution of PPPs projects.

As presented above the models provided variations that work differently in successful project implementations. In PPPs, the government gives out its power to private developers after the project completion. Zona et al. (2018) pointed out that a public organization conducts real activity or service delivery using the facility. Nonetheless, the relationship between a private developer and public organization is essential in reducing the cost of production and operation. It also gives the company enough time to monitor and reports the facility for a given period. It worth emphasizing that the private sector maintains permanent project ownership and operation in the facility. In such a partnership, the public sectors have to buy services from private developers.

1.4.Statement to the problem

Most nation's particularly developing countries are encountering unprecedented financial difficulties and are not able to commit their resources in expanding and implementing their projects. It is against this background that governments are signing contracts with private industry with the hope of getting financial help, design, procedure, and maintenance of essential project infrastructure (Opara et al., 2017). Most public projects have stalled and no hope of implementation. The execution has become a big issue and complicated. The project teams are believed to have led to limited results; team members have conflicting goals and strategies, they are susceptible to hold-up and disintegration, in most cases they do not meet their set goals or objectives, and they perceived to worsen the situation (Nahidi et al. 2017).

Countries have adopted the model due to various reasons such as citizen's service affordability, the increased quality service demand and need for services. Moreover, scholars believe that the adoption of PPPs positively affect the economic development by creating more job opportunities, minimizing government borrowing, establishment of the long term funding market, reduce project implementation associated risk, offering new investment capital for the project development as well the decreasing the gap in infrastructure projects (Loosemore & Cheung 2015).

Some research has indicated that PPPs sometimes does not help the public institutions to meet their objectives. In adopting PPPs, the issue comes in the coordinating or relating public and private team members together. Nonetheless, the partnership may not be in a position to achieve the goals set because of the varied objectives and methodology in proving solutions to issues facing the project. Nahidi et al. (2017) noted that the government takes over this kind of projects and offer its regulatory control on the undertaken project using partnership and they define the private sector contribution in the ownership.

It can be noted that the public-private partnership has various limitations that affect project implementation like legal, economic, administrative, and social that have to be studied and assessed comprehensively before the contract is approved. Elements that affect the project implementation and contract are legal, political and commercial feasibility; private industry may not have the interest in specific projects because of high risks associated with technical and financial ability to execute the project. The implementation of a PPP project is considered very expensive, except for extra costs are offset using effectiveness gains (Rouhani et al., 2016).

The adoption of PPPs in America is facing numerous challenges because the concept is evolving, which make the country to be adapted to certain features of a specific industry. Even though public sectors have shown some interest in increasing extra funds from private industry to manage its budget, the private sector is unconvinced about government obligation, and it may not develop the unsuitable, policies that hurt the market. In addition, the recent implementation of PPPs need the government to coordinate its projects, yet its ability to meet this requirement is questionable (Opara et al., 2017).

Scholars have carried out studies in this area, and there is no agreement if the PPPs effect on public project implementation is significant or negligible. Studies conducted by Rouhani et al.,(2016) on the determinants of PPPs and waste management in Europe, Nahidi et al. (2017) determined factor affecting the execution of public-private partnership in agricultural projects. The study found out the PPPs affected agricultural projects, farmer's goals and objectives were met on time.

1.5.Research questions

i. What is the effect of Public-private partnership on public project implementation?
ii. What is the financial assistance of Public-private partnership on public projects?
iii. How does a management skill affect the success of PPPs?

1.6. Aims and objectives

i. To determine effect of Public-private partnership on public project implementation.
ii. To assess the financial assistance of Public-private partnership on public projects.
iii. To evaluate the influence of management skills affects the success of PPPs

1.7. Research hypothesis

There is no significant relationship between Public-private partnerships on public project implementation.

There is no significant relationship between management skills and success of PPPs

1.8.Research Contribution

The study will provide insight into the role that private sectors help in implementing public projects through corporal social responsibility. The study will be valuable in highlighting ways that stakeholders can initiate private sectors contribution to the development of the public project.

CHAPTER 2 – LITERATURE REVIEW

2.1.Previous Literature Review

Public-Private Partnership is an interesting research topic that has been studied by many scholars over the years. Most studies focused on developed countries including UK and US since the concept was initially applied in these countries. The studies have extended to involve other countries in Asia including China, Malaysia, Hong Kong, UAE, Kuwait, and India among others. In recent areas, scholars have involved the study of developing countries including Ghana, Nigeria, and South Africa. The studies aim at exploring the critical success factors that are necessary when conducting the PPP projects. The major concept that is elicited with the advocacy of critical factors of success is the matter of money value. The nature of PPPs is also evaluated in the previous research to determine the level of effectiveness. Another important conceptual framework adopted by the studies is the evaluation of CSFs across different economies to demonstrate the variance in critical success factors. The CSFs applied in developed countries vary with those in developing countries. More so, the CSFs vary between developed countries owing to the public need.

The most identified CSFs in the research studies include strong consortium, efficient and transparent process of procurement, stable macroeconomic environment, government guarantee, shared authority between the private and public segments, favorable legal structure, and local financial market and risk allocation (Almarri & Abu-Hijleh 2017) (Almarri & Boussabaine 2017) (Helmy 2011) (Chan et al. 2010) (Hardcastle et al. 2005) (Maseko 2014). Other factors that were not prominent but effective include sound economic policy, cost-benefit analysis, political and social support, the economic stability of the country, project technical feasibility, and suitability of PPP arrangement to the project.

It is necessary to note that the most identified CSFs were prevalent across different economies and industries, citing their importance in ensuring successful public initiative. The less dominant CSFs could be attributed to the host factors including political stability, which makes political support and sound economic policy less critical factors as they are in place.

The PPP schemes ensure that the public infrastructure delivers value for money. The key characteristics in ensuring good money value include allocation of risk, competitive and transparent purchase process, and flexible negotiations (Osei-Kyei & Chan 2015). The value for money ensures that the projects realize maximum costs and benefits. This is the distinguishing factor between PPP schemes and other conventional models. Meeting clients' needs and value money analysis is at the core of PPP initiatives. This is done through both quantitative and qualitative assessments that seek to compare core factors including cost-benefit, fiscal, and risk-adjusted costs compared to conventional procurement processes (Almarri & Boussabaine 2017). Time, cost, and quality are critical objectives that are evaluated. This is because they are key driving factors affecting input and output processes (Maseko 2014). With careful consideration of these three factors, the success of a PPP initiative is ensured.

The causal relation between CSFs and the PPP projects' success is important. Designers, planners, and other members of the consortium team and PPP, in general, should evaluate the casual link during the designing, implementation, and evaluation phases. This is attributed to the fact that CSFs vary due to many factors, and as such, a proper identification of the success factors is critical to the successful implementation (Osei-Kyei et al. 2017). The critical success factors in UAE contrasted with the CSFs in the UK, suggesting a commonality of economic and political conditions.

Even so, there was a marked difference with regard to favorable legal framework, stable macroeconomic conditions, and the local financial market (Almarri & Abu-Hijleh 2017).

2.1.1. Evolution of PPP

PPP is a new concept and model for the development of public projects that have enjoyed immense research interest for two decades. The collaborative form was first introduced in the UK, in the year 1992, through the private finance initiative. Thereafter, the PPP term was first mentioned in the UK in the year 1997. The main purpose of the initiative was to maximize the value of development of public projects by inculcating the skills, knowledge, and resources of the private sector in a collaborative form with the public sector (Almarri & Boussabaine 2017). In the 1990s, PPP was established as the new tool of public policy following the initiation of the New Public Management system that shifted focus from public service to service delivery. Privatization, deregulation, re-invention of government roles and contests in the delivery of public commodities and services was the main theme during this era. The US and the UK were majorly influenced with the NPM and executed the majority of privatization during this era (Almarri & Abu-Hijleh 2017). The aim was to share the market risk and financial burden. The PPP was aimed at delivering value-for-money infrastructure and public services.

Since the PPP evolution in the 19th century, different approaches have been employed by different economic sectors in developed and developing nations. The most popular models are the Build-Operate-Transfer (BOT) model and DFBO model. In the BOT, the private sector is contracted to design, build, and operate a project for a contracted period, and thereafter, hand it back to the public. The public finances the project and its ownership remains in the hands of the public even during the contract period. The private sector receives user fees from the public sector but the public accepts the risks associated with demand.

Design Build Finance Operate (DFBO) is another model where the private sector accepts some of the risks associated with traffic demand but the user tolls are catered by the public sector. This model has been used in the development of road projects in Finland, England, and Portugal. In the UK, DFBO is the adopted model for the PFIs for construction models (Osei-Kyei & Chan 2015). Build-Own-Operate (BOO) model applies where the private space designs, builds, and operates the project and retains ownership but they have an agreement with the public sector to purchase commodities and services from the project. The aim is to finance the project and collect revenue for users to cater to construction and maintenance costs. Other models include Build-Lease-Transfer (BLT), Design and Build (DB), Design-Construct-Manage and Finance (DCMF), and Operate and Maintain (OM) among others.

2.2.Barriers and Challenges

Capital failure is one of the major challenges facing the execution of PPP projects. This is attributed to the lack of a mature financial market to finance the private sector to complete an ongoing project (Almarri & Abu-Hijleh 2017). The capital failures also arise when poor planning is done without proper evaluation of return on investment, private sector resources, project feasibility and access to funding. As such, the government and private sector enter into an arrangement that has no success prospects (Maseko 2014). It is imperative that parties in a PPP arrangement should undertake a comprehensive cost-benefit analysis to determine the capital costs, operation costs, and various risks associated with the projects. This helps determine an estimated required funding, avoiding stalling the project midway.

The implementation of PPP projects faces an array of challenges that impact on the project life cycle. The project factors include management, costs, quality, schedule, and slow progress.

It is imperative for parties in a PPP arrangement to undertake proper management of these factors since they are important indicators of the success and progress of the project. The poor management of these factors usually elicits budget overrun, untimely delivery of services, and poor quality. An overall increase in costs including construction, operating, and maintenance costs are associated with poor management of project factors (Maseko 2014). This is the rationale behind the development of a strong private consortium since it ensures that all project factors are meticulously evaluated and managed to realize the ultimate goals.

The matter of mutual trust issues is another barrier facing the implementation of PPP projects. Private and public sectors have trust issues with each other or with other countries. This is detrimental to the realization of multi-sector delivery objectives where the government aims at risk sharing, cost-effectiveness, timeliness, and security. On one side, the private sector aims at innovation, quality commodities and services, transparency, reliability, and profitability. However, the lack of trust impedes the achievement of these objectives (Osei-Kyei & Chan 2015). As such, it is paramount to develop mutual trust in a PPP arrangement as it bolsters coordination and cooperation in implementing PPP initiative.

Cost restraints on innovation and untested technologies are detrimental for the attainment of the objectives of public projects. Untested technologies pose a huge challenge since its performance and reliability is not validated. As such, the private sector may face failures during the execution stage, leading to the delay of the project. On the other side, innovations are costly as they entail a huge amount of resources and funding. It is essential to note that innovations usually entail bringing together various creative ideas to come up with a long-lasting solution. The testing of various concepts is tedious and costly. Consequently, embracing innovation in a PPP project may increase operating and delivery costs.

2.3.Success Factors

These success factors determine the effectiveness of the PPP initiative and will be extensively discussed based on three categories namely project financing, regulatory, and technology.

2.3.1. Risk Allocation

The sharing and allocation of risk is a key element in the PPP arrangements. In this approach, the risks are meticulously determined and allocated to a private sector that has good mitigation skills and approaches for such risks while some are retained by the public partner. This is crucial for the project management as it improves both the efficiency and effectiveness of the implementation process. The PPP arrangement is perceived as a better model compared to the conventional procurement model due to its operational efficiency (Osei-Kyei & Chan 2015). During the identification and sharing of risks, the government is allocated risks that are out of the private sector's control. This encourages future participation of private sector in PPPs as they are accorded risks that they can manage (Sanni 2016). The private segment faces several perils that relate to asset purchase and delivery of service since the sector is more efficient when it comes to risk management (Chan et al. 2010). Financial implications are realized with effective allocation of risks as they lead to an increased value of money and lowering of overall project costs. On the other side, ineffective risk allocation has an outcome on the completion of the project regarding cost, time, and quality. It is for this reason that allocation of risk has been a unique element and critical success factor in PPPs.

2.3.2. Government Guarantee

The success of the PPP projects is based on meeting both the conditions and objectives of the business. The state offers its support to these partnerships through the use of revenue guarantees and accommodating policies, which favor cost reduction and funds' availability by offering good terms to secure finances (Almarri & Boussabaine 2017). The state guarantee is essential in the early stages of the PPPs and is usually provided in two forms, which are multi-benefit objectives and guarantee. With regard to the government guarantee, the government avails finances and firmly committed policies to ensure the projects are successfully implemented and completed. This form usually applies in countries where the private sector has little confidence in the government, continually seeking finances and adoption of committed policies to protect their investments. On the other side, the government, through multi-benefit objectives, ensures that guarantees protect the project revenue streams. This is achieved by evaluating the needs and objectives of the private contractor to ensure that profitability is not only the key aim but also quality, efficiency, and effectiveness (Hardcastle et al. 2005). As such, the multi-benefit objective ensures that both objectives of the public service and private contractor are met. With this kind of approach, the PPP projects are more attractive to private contractors since it ascertains them of the value of the project. Moreover, providing a guarantee for the return of the investment makes it easier to source external financing (Helmy 2011). A critical look at the government guarantee illustrates that it is a crucial success factor for the PPPs. This is because the PPP projects are associated with high capital costs and numerous risks that may compromise project viability and profitability. Since the private sectors provide crucial management skills in terms of delivery and asset procurement, it is vital for the government to promote a sustainable and healthy relationship with the private sector.

For this reason, government guarantee ensures that the objectives of private sectors are achieved while ensuring delivery of timely, quality, and sustainable projects.

Government guarantees ensure project economic viability by addressing the profitability requirements of the private sectors. Arguing from the risk perspective, substantial revenue risk is attracted in instances where the revenue source for the private segment is direct tariffs. The government seeks to alleviate these financial obstacles through joint investment funding, government guarantee, and supplemental periodic service payments (Chan et al. 2010). With this initiative, the risks are substantially reduced while the private sector gains financially from the PPPs. The PPP arrangement becomes more appeasing to the private sector and foreign investors. The competition is vital for the project feasibility as the winning bidder operates under optimal excellency and efficiency to retain the contract.

2.3.3. Local Financial Market

The availability of a well-established financial market is a crucial factor of success for the financing of the PPP in the UAE. External financing provides a chance for the private segment contractors to share the economic risks and give incentives through conditioning of repayment plans (Helmy 2011). It is also important as it helps minimize the economic burden of the state by allowing the private segment to finance the PPP with easy access to financial instruments. The private sector is able to finance these projects through the availability of attractive and flexible instruments including debts, purchasing credit, securities, and equity (Ismail & Ajija 2013). With the availability of these flexible options, quality-financing options are availed to the private sectors, making it a crucial success factor.

An active and efficient financial market is a critical project feasibility factor that serves to support the project's capital outlay. A mature financial market is an important attribute of this capital outlay from which private sectors can draw. Debt and equity constitute the capital outlay where debt is issued as commercial or bridge loans while the equity comprises direct contribution from the stakeholders (Almarri & Abu-Hijleh 2017).

Private sectors are attracted by favorable economic conditions that are supported by a viable financial market. The government ought to improve the economic conditions to increase the attraction of the private sector, international experts, and lenders into the PPPs. This is accomplished through two important factors including tax exemption or reduction and providence of loans by the government. Liquidity and debts are important elements when measuring the local financial market (Mustafa 2017). As such, countries, where debts, equity, and sureties are issued, have a strong financial market. Moreover, the debts are issued at low-interests within a flexible period and good terms.

2.3.4. Macroeconomic Conditions

A stable macroeconomic environment is a fundamental element to the PPPs. The foreign investors and private sectors usually worry about unstable macroeconomic environment due to the return of investment (Maseko 2014). Macroeconomic risks including exchange rates and unstable inflation are among the factors that are considered. However, these risks are usually lowered through allocation and sharing in the PPP arrangement. It is essential to note that value for money is a vital element evaluated by the private sector since the primary business objective entails profitability and sustainability (Almarri & Boussabaine 2017). As such, unstable macroeconomic poses a great financial risk that deters investors from PPPs. This illustrates that a stable macroeconomic atmosphere is a vital success factor in the execution of PPP projects.

The progress of PPPs lies within the context of macroeconomic conditions. Favorable economic conditions are vital for project feasibility as they provide a stable platform for the thriving of PPP projects. Among the critical factors of macroeconomic environment, include inflation, economic growth, GDP, interest rate, and unemployment. The government is principally responsible for ensuring a stable macroeconomic environment by adopting apt economic policies that will bolster the confidence of the private sector. The government makes fiscal forecasts, reports, and policies to ensure economic growth (Almarri & Abu-Hijleh, 2017). A comprehensive extrapolation of PPPs reveals that the involvement of the private sector aims at reducing long-term project costs, time, and improving quality and efficiency. On the other side, the private partner aims at maximizing their profits and growth while fostering a sustainable relationship with the government. Stable macroeconomic conditions provide an integrated platform where both objectives of the partners are achieved. Unstable economic conditions are detrimental to the PPPs as private sectors fear to invest in the PPPs.

The stable macroeconomic environment is a critical success factor (CSF) that is multi-faceted. It entails six CSFs that ensure a stable environment including appropriate allocation of risk, available financial market, favorable legal structure, a sound economic policy, stable macroeconomic environment, and multi-benefit objectives (Chan et al. 2010). The commensuration of all these factors leads to a stable macroeconomic environment that is attractive and lucrative to the private sector. This is because a favorable legal framework, sound economic policies, appropriate risk allocation, and multi-benefit objectives provide a convenient business environment that supports the goals of private contractors.

2.3.5. Reduced Public Administration Cost and Project Life-Cycle Cost

Administrative and project life cycle costs are two integral components of project financing that determine the effectiveness of the PPP initiative. Detailed project planning and feasibility studies help determine the fiscal costs and risks associated with the initiative. As such, the parties in the PPP arrangement are able to clearly allocate and share risks to lower the administrative costs. However, the transfer of risks to the private partners is conducted based on the technical competence and capability of the partner to handle the risks. On the other side, a comprehensive analysis of the project lifecycle costs is beneficial as it illustrates the construction, operation, and delivery costs of the project. The assessment inculcates the schedule of delivering the objectives to ensure the availability of funds at important points of the project. This is crucial to the prosperity of the PPP project as it provides both the public and private party with detailed financial analysis. As such, the parties seek for sources of funding at flexible and good terms to ensure that the project is not delayed. Moreover, the private party aims at profitability and providing quality and sustainable services (Osei-Kyei et al. 2017). With comprehensive financial analysis, the party is able to reduce the project life cycle costs in a manner that will promote monetary gain and at the same time promote embracement of innovative ideas. Another critical success point is the adoption of competent financial advisors that help the planner alleviate unnecessary costs, leading to the achievement of multi-objectives. The financial advisors manage the cash management flow throughout the project while ensuring that every cost is met and the repayment of loans is on schedule.

2.3.6. Cost-Benefit Analysis

Successful public initiative mandates cost-benefit analysis to determine the life-cycle costs of the project against the potential benefits. Life cost studies provide a clear illustration of the true value of the project, impacting the decision to undertake the project or not.

Project appraisal is conducted during these studies to determine the performance indicators. The cost-benefit analysis is important as it allows the parties to evaluate current proposals and their relevance to the project outcomes (Almarri & Boussabaine 2017). Alternative financial and technical approaches can be provided following cost-benefit analysis to ensure that the project is cost-effective and profitable. Moreover, the analysis promotes the delivery of value-for-public money. This is because the findings of the analysis ensure appropriate capital structure, low tariffs, and low life-cycle costs are employed in the project.

Cost-benefit analysis promotes multi-sector objectives that are crucial for the success of the PPP initiative. During the project appraisal, the analysis evaluates all potential procurement options to ensure that they are advantageous to both the state and end-users (Chan et al. 2010). The analysis ensures that the interests of all stakeholders of the PPP are protected by all means and alternatives. Economic and commercial viability are integral elements that are evaluated during the analysis (Almarri & Abu-Hijleh 2017). The commercial component concentrates on aspects such as payment mechanism and risk transfer, purchase, among other contract elements. This fosters competitive bidding processes, technical innovations, output specification, long-term engagement, and the embracing of management skills of the private sector. On the other side, economic viability aspect focuses on the impact of the project on the financial status of the public party and cash flow. As such, the appraisal meticulously evaluates the capital cost to ensure optimized risk allocation, low life-cycle cost, improved and timely service delivery (Almarri & Boussabaine 2017).

2.4.Critical Success Factors Related to Regulation

2.4.1. Strong Private Consortium

A strong and experienced consortium is a major aspect for the success and completion of a PPP project. The structure and compatibility of a consortium heavily influence the success of the PPPs. A consortium comprises teams of different technical expertise including engineers, contractors, designers, and financiers. The multi-faceted team owes to the sophisticated nature of PPPs that necessitates the formation of a consortium (Almarri & Abu-Hijleh 2017). The selection of a partner is crucial in forming a strong consortium. Companies should select partners who are compliant to the legal requirements of the nation and their mission and goal are similar to theirs (Osei-Kyei & Chan 2015). This helps boost coordination among the teams in the consortium leading to successful projects. A consortium should comprise a team with strong technical, managerial, and operation capacity to take up the project (Almarri & Abu-Hijleh 2017).

Strength and experience are vital in the formation of a consortium. The higher the technical experience and strength of the consortium partners, the stronger the consortium and this translates to higher success rates. A strong consortium is paramount to the project as the team is able to effectively design the project based on the output specification and careful consideration of associated risks. The financial experts also structure the capital outlays and cash management flows to ensure optimal access of required funds and apt repayment of loans without compromising the project (Almarri & Abu-Hijleh 2017). All of these aspects ranging from design, implementation, and financial management are vital for the success of any project. As such, comprehensive planning and execution of the project following the technical advice from relevant experts influences success.

Parties in a consortium should demonstrate the technical and financial capability of undertaking the PPP. The success of the projects relies on synergized relationships where both individual strengths and weaknesses of the parties are exploited to maximize the benefits of the consortium. A good relationship is also crucial for the cooperation and coordination of the parties to ensure that the goals of the PPPs are achieved (Chan et al. 2010).

2.4.2. Transparent and Competitive Procurement

The effectiveness of the procurement process in the PPPs principally relies on transparency, competitive bidding, good governance, and committed and competent public agency. Collectively, these factors promote the successful completion of the PPP project by lowering capital and transaction costs and ensuring value to government projects.

Transparency of PPPs should be observed from the tendering process to the delivery of the PPP project. PPP is a procurement process, which explains the need for transparency to ensure the success of the project. Purchase processes that are transparent minimize costs of transactions and negotiation time. This is vital as the project is completed in time and public funds are secured for other public projects (Chan et al. 2010). The importance of transparency lies within the fact that negative public perception of PPP project usually compromises the implementation of the project. As such, transparency should be a two-way process between parties and external stakeholders and both the public and private segments to the public. The information about the delivery and implementation of the project should be made public for accountability (Osei-Kyei & Chan 2015).

A solid private consortium is developed with a competitive bidding process and this fosters the retention of public funds' value. It is for this reason that the step should not be solely price-based but rather client requirements and project briefs (Chan et al. 2010). Focused negotiation in the bidding process assists in unlocking further value by offering information that directs bidders to re-assess their proposals (Almarri & Boussabaine 2017). Increasing competition in the private sector increases value for money. This can be done by lowering the entry barriers, encouraging international participation and increasing decision-making effectiveness (Helmy 2011).

The government should be transparent through the whole procurement process to ensure that public funds are utilized appropriately and delivery of quality PPP project. Public and private sectors also have a role in the procurement process by ensuring commitment to the objectives of PPP during bidding and delivery of PPP project.

The committed public agency is vital for the transparency and success of the procurement process. The agency should be competent to ensure the course of PPP is adhered to by the various stakeholders. The agency also acts in a diligent and transparent way to ensure that the best bidder selected will optimally and successfully deliver the objectives of the PPP (Almarri & Abu-Hijleh 2017).

Good governance is vital for the successful completion of PPP projects. Political commitment is a fundamental element in good governance, which ensures that the private sector is alleviated of the long-term political risk. In turn, the government focuses on the cost-benefit analysis of the PPP (Helmy 2011). Embezzlement of funds, bureaucracy, and corruption have significantly affected the delivery of PPP projects. Lack of organization and coordination among public agencies is attributed to this unethical behavior leading to misappropriation of public funds. This significantly affects the successful delivery of PPP projects as stalling due to lack of funds is commonly exhibited. Poor quality projects that lack sustainability is another product of a lack of transparency (Alinaitwe & Ayesiga 2013).

This highlights the importance of transparency of the procurement process to ensure there is value of money. The government should improve and strengthen its governance stance to bolster accountability and investor confidence.

2.4.3. Political Support

Politics and the establishment and execution of public policy are closely related. Since the government is the sole political decision maker, it has to embrace transparency when dealing with PPPs. It is worth noting the changes in politics significantly affect the implementation of public projects (Ismail & Ajija 2013). PPP is a public policy that is immensely influenced by the political setting of the host country. The approval of public expenditure on a public project is granted in the prevalence of political support. Moreover, political support attracts more investors since the stable political environment presents a convenient business environment (Osei-Kyei & Chan 2015). A stable political environment is crucial for the timely completion of public projects since the government is intact allowing effective monitoring and review of the developments (Chan et al. 2010). An unstable political environment is detrimental to development as a frequent change in regimes comes along with different manifesto, stalling projects of the preceding regime. As such, the vitality of political support and a stable political environment is realized in PPPs.

Political support significantly minimizes the political risks of conducting business in a host country. In countries where there is minimal or no political backing, little competition is exhibited. This is detrimental to the tendering process where the winning bidder may not be the best for the implementation of PPP’s objectives (Chan et al. 2010). As such, investors and private sectors tend to distance themselves from investing in such jurisdictions. A government with overwhelming political support has a wide array of PPPs.

2.4.4. Favorable Legal Framework

Favorable legal framework clearly guarantees legal status for the implementation of PPP initiative. Private partners tend to seek legal systems that confer proper execution of contractual agreements. This is crucial for the success of a PPP initiative as it fosters the satisfaction of all stakeholders (Almarri & Boussabaine 2017). With the clearly defined contractual agreement as stipulated by the legal framework of the host country, the private party executes its responsibilities with optimum confidence.

The legal framework establishes mechanisms that evaluate service delivery and the procurement of assets. This is crucial for the success of PPP initiative as it ensures timely service delivery and the transparent procurement of assets. The framework focuses on initial and life-long processes of the contract to ensure that the initiative meets the pre-agreed service requirements (Chan et al. 2010). The legal framework is important in fostering transparency and accountability while ensuring delivery of quality services. The legally abiding contractual agreements are, as such, vital in the successful completion of PPPs.

Favorable legal framework imposes no legal restriction on private sector involvement in PPPs. However, it provides regulatory provisions for the engagement of the private segment in PPPs. The private parties are expected to strictly adhere to industry and service regulations as dictated by the pre-service contracts (Hardcastle et al. 2005). In the UAE, the legal platform for the legislation, agreements, policies, and regulations is favorable in terms of private parties that seek to invest in the country (Almarri & Abu-Hijleh 2017). With such a platform in place, the private party is willing to commit its investment to long-term projects due to its confidence in the legal system.

A well-defined legal system supports the implementation of PPP projects. A transparent framework offers provisions, which make bankable contracts. A good dispute resolution framework brings about stability in the PPP arrangement. Additionally, legal structuring is necessary also vital in the process (Chan et al. 2010). The framework mitigates corruption by adopting mechanisms that promote transparent and competitive procurement process with minimal or no external influence. The framework also protects public rights through fair regulatory frameworks of business practices including competition and procurement. The private sector is also protected from extortion and exploitation associated with unseen future risks (Osei-Kyei & Chan 2015). The framework promotes both fair political and business environment.

2.4.5. Sound Economic Policy

Economic policies that foster stable and economic growth are significant for the implementation of the PPP project initiatives. This is important for the attraction of private investors as appropriate economic policies usually boost their confidence (Hardcastle et al. 2005). Sound economic policies also seek to reduce uncertainty in the market by reducing the risks. The government needs to adopt economic policies that promote economic development in the host country. Domestic demand is boosted through the adoption of strong fiscal policies that facilitate expansionism. Another policy area is tax reforms, globalization, and starting a business. These are key areas that either promote or deter investors from engaging in PPP projects (Ismail & Ajija 2013). However, the existence and implementation of a policy in this area will attract investors. This is because it mirrors the profitability requirement of the private sector.

Moreover, sound economic policies are crucial in mitigating poverty and unemployment rates, which are negative attributes that discourage foreign and private investors. Trade policies that postulate regulations of trade agreements and tariffs are important in this area. Most private companies rely on direct tariffs, which increase their revenue risks. However, trade policies that clearly insulates the private parties from such revenue risks while engaged in PPPs are important. A critical evaluation of these policies clearly demonstrates the significance of economic policies on the success of PPPs. Apt economic policies encourage investors and foster healthy relationships, leading to the success of PPP initiatives.

2.4.6. Shared Authority between Private and Public Parties

Shared authority is a critical regulatory and success factor in the implementation of PPPs. It provides the scope and roles of each party through a set of established procedures. Consequently, the decision making process involves deep and prior consultation between the two parties. This is important as every party has its roles, and as such, unilateral decision-making may affect the progress and success of PPP initiatives (Almarri & Abu-Hijleh 2017). The commitment of both parties to the realization of the goals of the PPP project is important. For the successful project completion, it is vital for both parties to commit their resources to the attainment of set goals (Ismail & Ajija 2013). The shared authority promotes synergy and coordination between public and private parties, which leads to a positive outcome of the project.

Strong contract management control is another feature of shared authority that ensures compliance of both private and public sector. The management control ensures that the partners work within the scope of the PPP project and deliver timely results.

This is attributed to the fact that the lack of regulatory framework usually leads to an overrun of budget and time (Maseko 2014). As such, successful completion and implementation of PPP project requires contract management to monitor the progress of the initiative.

2.4.7. Public/Community Support

Public support is an important component for the prosperity of the PPP initiatives. Especially, in the initial phase of PPP, social support is paramount as it aids in smoothening the development and procurement process (Hardcastle et al. 2005). The vitality lies within the acceptance and understanding of the PPP project as it fosters the progress of the PPP project. The dynamism of technology has made it possible for quick dissemination of information through media, trade unions, and NGO platforms. As such, the public learns about the objectives, goals, and scope of PPP initiatives, which either attract acceptance or rejection by the public (Osei-Kyei & Chan 2015). Community support minimizes delays in the execution of the PPP initiative as the support indicates acceptance of the project, which explains the green light to indicate progress with implementation.

Public support is paramount as it reduces costs of production and increases revenue generation. When the PPP project gains support from the public due to its facilities and future use, the community actively engages in the implementation phase with some of them providing skilled and unskilled labor (Osei-Kyei & Chan 2015). On the other side, revenue generation is assured as the public will utilize the facilities upon completion. The support also alleviates political debates that lead to the stalling of the project, leading to the loss of value of public money (Almarri & Boussabaine 2017). It is crucial to note that PPP projects are designed, implemented and developed to address the needs of the community. As such, public support is important, otherwise, it is a loss of capital costs and time.

2.5. Critical Success Factors Related to Technology

2.5.1. Project Technical Feasibility

Technical feasibility studies are important for the success of a PPP initiative since comprehensive planning is conducted with a meticulous analysis of capital costs, processes, profits, and risks. With this kind of study, the economic rationale of the project is identified and matched with the predetermined needs. The technical problems associated with the project are also identified and this helps in choosing the most appropriate procurement option (Chan et al. 2010). The feasibility study is important as it clearly identifies the needs and technical problems, which form the backbone of any project.

Feasibility assessment clearly outlines the output specifications of a PPP initiative. The outline indicates the standards of public commodities or services to be delivered and the required time. This allows the private consortium to devise innovative approaches to deliver the project. The study dictates the structure of the project in a manner that it meets the output specifications. A clearly defined project outcome is a major aspect in the implementation of a PPP initiative (Osei-Kyei et al. 2017). This is because the private party has adequate information on the anticipated output and executes its project plan in a manner that will lead to the attainment of the goal.

Constraints that may jeopardize the progress of the project are determined during the analysis of project technical feasibility. The assessment promotes the success of the project as it leads to constructive synergies that will address these constraints. The private sector greatly contributes expertise and management to the public project. In the PPPs, the private sector is tasked with resolving the technical issues and making the project financially attractive (Helmy 2011).

The creation of consortiums after constraint identification is a critical success factor. The consortium comprises a multi-disciplinary team that focuses on an array of issues to ensure that the project plan and structure match the ultimate objective.

2.5.2. Effective Transfer of Technology and Innovation

This is an important success factor where the private sector transfers technology and innovation to the public segment. The private sector is largely known for its application of the latest technologies to business to maintain its competitive edge. On the other side, the public sector is conservative to the traditional methods, making it intricate to execute public projects that match the current technology. As such, PPP arrangement allows the transfer of technology between these two sectors. Open frequent communication is a criterion that fosters the transfer of innovation. Partnering with foreign investors provides them with an opportunity to learn new technologies, especially in developing countries where there are lagging in technology. The local practitioners have no substantial capacity to compete with foreign investors, making it necessary for innovation and technology transfer through the PPP arrangement (Osei-Kyei et al. 2017). This is critical for the success of a PPP initiative as new technologies are cost-effective compared to traditional concepts and are appropriate for solving a social problem. The effective transfer of technology should follow a long-term commitment by the private party to educate the public party on the innovation and its application. On the other side, the public party should ascertain to meet the costs of developing the innovation and subsequent training.

2.5.3. Suitability of the PPP Arrangement

The suitability of a PPP is crucial for the success of the PPP initiative. A detailed feasibility study, competitive bidding process, a transparent procurement process, strong private consortium, and technological innovations are the main elements that are considered to determine the suitability (Osei-Kyei et al. 2017).

As observed, there are various forms of PPP models that are employed based on needs, costs, management, and desired outcome. As such, comprehensive analysis of these elements provides a clear picture of the kind of PPP model that is suitable for the project.

Satisfying the public need is another criterion for determining the suitability of the PPP arrangement. The PPP should fully satisfy the needs of the public by clearly adopting project structure and design that will meet the outlined output specifications.

As such, the needs of the projects are usually evaluated before procurement processes to ensure that the bidding process selects the best party for delivering the public object. Additionally, PPP initiatives are aimed at promoting local economies. Consequently, performance indicators are set to determine the progress of the project in realizing this objective. All stakeholders should be actively involved in this exercise to ensure that the project serves its purpose (Mustafa 2017). A critical look at the suitability demonstrates that selecting a project and PPP arrangement are critical success factors for the implementation process. The PPP model should match the aims and goals of the projects, as well as address the needs of the public.

Category	Success Factor	Paper
Finance Success Factors	Risk allocation	(Osei-Kyei & Chan, 2015) (Sanni, 2016) (Chan, et al., 2010)
	Stable macroeconomic conditions	(Chan, et al., 2010) (Maseko, 2014) (Almarri & Boussabaine, 2017) (Almarri & Abu-Hijleh, 2017)
	Government Guarantee	(Hardcastle, et al., 2005) (Helmy, 2011) (Almarri & Boussabaine, 2017)
	Local financial Market	(Helmy, 2011) (Ismail & Ajija, 2013) (Mustafa, 2017) (Almarri & Abu-Hijleh, 2017)
	Reduced public administrative cost and life-cycle cost	(Osei-Kyei, et al., 2017)
	Cost-benefit analysis	(Chan, et al., 2010) (Almarri & Abu-Hijleh, 2017) (Almarri & Boussabaine, 2017)
Regulatory Success Factors	Strong Private consortium	(Osei-Kyei & Chan, 2015) (Maseko, 2014) (Chan, et al., 2010)

	Transparent and competitive procurement process	(Osei-Kyei & Chan, 2015) (Chan, et al., 2010) (Helmy, 2011) (Almarri & Abu-Hijleh, 2017) (Alinaitwe & Ayesiga, 2013)
	Political support	(Osei-Kyei, et al., 2017) (Chan, et al., 2010)
	Favorable legal framework	(Chan, et al., 2010) (Ismail & Ajija, 2013) (Almarri & Boussabaine, 2017) (Almarri & Abu-Hijleh, 2017) (Hardcastle, et al., 2005)
	Shared authority between private and public sector	(Almarri & Abu-Hijleh, 2017) (Maseko, 2014) (Ismail & Ajija, 2013)
	Sound economic policy	(Hardcastle, et al., 2005) (Ismail & Ajija, 2013)
	Public/ community support	(Hardcastle, et al., 2005) (Almarri & Boussabaine, 2017) (Osei-Kyei & Chan, 2015)
Technology related success factors	Project technical feasibility	(Chan, et al., 2010) (Helmy, 2011) (Osei-Kyei, et al., 2017)

	Effective transfer of technology and innovation	(Osei-Kyei, et al., 2017)
	Suitability of PPP arrangement to project	(Mustafa, 2017) (Osei-Kyei, et al., 2017)

2.6.Benefits of CSFs

2.6.1. Tangible benefits

According to Ginger (2015), tangible benefits include new markets, increased profits, resource availability, reduced costs, and new customers. These are the most important tangible benefits to executives of top organizations worldwide. New markets benefit an organization in many ways such as generation of more sales, opening up of new product lines, and new market niches. New markets also provide the basis for increased market research. Consequently, increased markets drive the need for innovating new or improved products in companies or particular projects.

Increased profits enable an organization to open up more branches, leading to the expansion of a business. Increased profits also impact on an organization's capability to borrow money from any bank.

A company's ability to borrow money from a bank is based on the fact that many small and medium companies rely on debt financing to run their businesses. Increased profitability positively impacts an organization's collateral as well as credit score, which are crucial aspects that determine financial lending. A company that generates continued profits attracts investors. Investors usually view profit-generating companies as good sources of return on investment. With an increase in profits, a company is capable of hiring more employees to handle duties and responsibilities that keep increasing as the company grows.

Resource availability in project management denotes access to the appropriate resources for a specific project at a particular time. In PPP, resources are needed for the successful completion of projects. For such resources to be used profitably, CSFs must be pointed out and used as the basis. Parameters that define resources include resource demand, optimal utilization, and resource capacity.

According to Nita and Stefea (2014), reduced costs take the forms of reduced wastes, increased motivation, goal congruence, and effective strategy evaluation. Reduced costs are directly related to business efficiency. Reduced costs can be noticed in terms of inputs and outputs in a given project. PPP, for instance, will realize reduced costs in their projects when the cost for the outputs exceeds that of the inputs.

Getting new customers from the perspective of CSFs lowers the customer acquisition cost in each year. Traditional methods of customer acquisition are no longer effective in the contemporary hypercompetitive market place. The concept of CSF acknowledges that customers are critical to the success of a business. With an increased focus on customers, the idea of customer relationship management and customer satisfaction are now utilized. Getting new customers also increases the lifetime of an organization’s existing customers.

2.6.2. Intangible benefits

According to Ginger (2015), intangible elements include increased customer satisfaction, improved staff morale, better regulatory and legal compliance, and improved strategic alignment. Customer satisfaction is a competitive strategy that top performing companies embrace. Unless customers are satisfied with a particular product or service, they will shift to that offered by a competitor. Brand satisfaction and quality customer service of a company are what constitutes to customer satisfaction.

According to Dye (2011), the term morale denotes the general feeling among the project team members or employees at the workplace. Morale plays a significant role among the project team members and determines the success of a given project. Project managers have great influence in creating positive morale in a project team. The six most important dimensions of morale in a team include flexibility, standards, responsibility, clarity, rewards, and team spirit.

Improved regulatory and enhanced legal compliance of a business enables it to minimize or do away with litigation costs. Litigation costs are very expensive to businesses. Such costs arise due to businesses non-compliance with certain legal requirements both from government and non-government agencies. Other sources of litigation include breach of copyrights and irresponsible marketing that is geared toward casting a competitor in a negative image (Dye, 2011).

According to Vargas et al. (2013), strategic alignment is a continuous and dynamic process in organizations that enable synchronization, integration, consistency, and support geared toward maintaining a competitive business performance. From the perspective of project management, strategic alignment serves to ensure that essential aspects in a project such as the work breakdown structure are appropriately aligned with all other elements. Strategic alignment is important while executing a project and it ensures that the project manager and the project team members have clear objectives for a given project.

2.7.Benefit Realization

According to Tillmann, Tzortzopoulos, and Formoso (2010), the purpose of benefits realization in project management is to maximize benefits and promote greater awareness to the stakeholders. Public-Private Partnerships denote benefit realization as key to attaining the set objectives while pursuing their projects. Contemporary PPP focus benefit realization on the provision of various intended business benefits and not the traditional focus that was given to quality, cost, and time aspects.

2.7.1. Value generation in benefit realization

Benefits are accrued when ongoing projects are decommissioned and when new ones are commissioned. An organization can only realize benefits during this period. Therefore, a value path exists during the onset of projects to the process of paths. Projects form deliverables, and such deliverables eventually form capabilities, which are ultimately responsible for creating benefits (Tillmann, Tzortzopoulos, and Formoso, 2010).

A benefit management process is used to ensure that capabilities create desired benefits. Such benefits include improved quality, increased efficiency, and cost reduction. Therefore, successful projects in PPP are entirely dependent on synergy. It is through this sense that benefit realization is used as a traditional means of managing projects. Contingencies are used as the basis of learning to maximize benefits (Tillmann, Tzortzopoulos, and Formoso, 2010).

2.7.2. The process of benefit realization

According to Tillmann, Tzortzopoulos, and Formoso (2010), benefits realization process must deal with four dimensions namely linkage, reach, people, and time. Linkage denotes the strategy of an organization and its desired outcomes. Reach refers to the scope of the project and specific areas that will be impacted and the degree to which stakeholders will be impacted. With regard to people, they must not be resistant to change and thus teaching them how to adapt to change will be necessary. Time is looked at from the aspect of transformation. The process of transformation should be keenly analyzed and allocated appropriate time.

2.7.3. Traditional versus modern principles of benefit realization

Tradition principles	Modern principles
Over time, benefits are generally stable.	There is a change in benefits concerning the kind of investment taken.
Investment type determines benefits	Benefits are determined by an organization and its types of businesses.
Financial returns are the basis of a justifiable investment.	All returns are the basis of a potential value.
Managing investments well leads to realization of benefits.	How proactive an organization is, determines the amount of benefits realized.

CHAPTER 3 - RESEARCH METHODOLOGY

2.8.Introduction

The research methodology chapter elucidates actions undertaken in investigating the research problem at hand (Cuervo-Cazurra, 2017). It shows the techniques and procedures applied in identifying, selecting, processing, and analyzing information so that the research problem can be understood. This research sought to determine the impact of critical success factors (CSFs) on the success of Public-Private Partnership (PPP) in United Arabs Emirates (UAE). A Quantitative method was adopted for evaluating the impact of each CSFs on the effectiveness of PPP projects. This methodology is adopted as it is effective in portraying the amount of emphasis given to each CSF in terms of their influence on the success of PPP projects.

2.9.Knowledge Creation Methods

The primary research onion model used for knowledge creation in business research is that of Saunders, Lewis and Thornhill (2011). Given PPP projects majorly entail various business aspects such as project financing, regulatory environment, and technological factors, it is the research model onion utilized in this investigation. This research, therefore, follows the research onion model illustrated below [Figure 1].

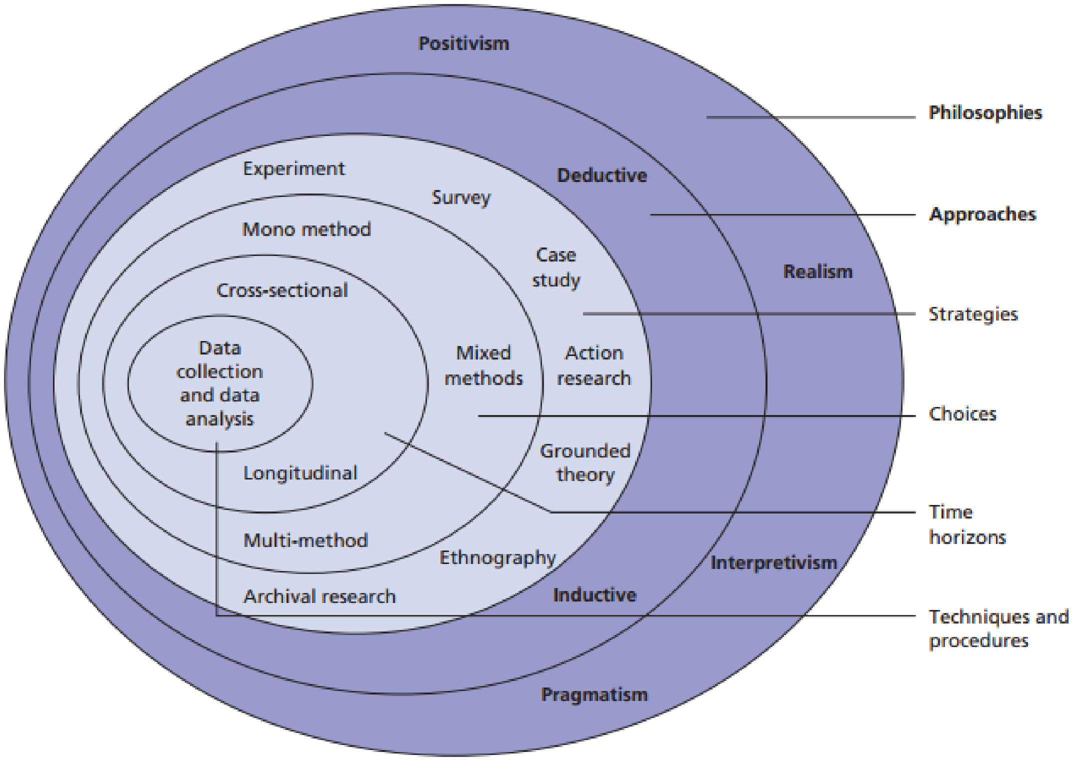


Figure 1. Research onion model. Source: Saunders, Lewis, and Thornhill (Saunders, 2016)

2.10. Research Philosophy

Research philosophy dwells on the source of knowledge, nature and development of knowledge (Saunders, 2016). The research philosophy applied for this investigation is that of positivism and interpretivism. Data collected will be analyzed and interpreted in an objective manner. A range of data will be analyzed to help identify the impact of CSFs on the success of PPP projects. Interpretivism philosophy will be used to identify, reflect different aspects pertaining to PPP and classify meanings of the findings so that conclusions can be reached. Interpretivism philosophy argues that the gain an understanding of reality it is essential to comprehend social constructions such as consciousness, shared meanings, instruments, and language (Saunders, 2016). In the business context, it is crucial to have an understanding of some business terminologies, perceptions, business tools such as financial tools, and have the ability to discern and interpret the constructions into useful information. As such, interpretivism philosophy will be utilized to gain useful information on the influence of CSFs on the success of PPP.

2.11. Inductive Approach

The use of inductive approach in business research is so as to explore and uncover how a particular aspect is perceived, implemented, or undertaken at different times and space. In this research, we employ the inductive approach to identify similarities and differences in the implementation and execution of PPP in different countries. Observations will be made from previous studies, literature, and theories on CSFs and PPP then generalizations be developed to underpin the underlying gaps with regard to the success of PPP and CSFs. After identifying the gaps and weaknesses pertaining to existing notions on PPP, deductive approach will be applied to highlight and address and/or recommend on remedies for the gaps and weaknesses.

2.12. Deductive Approach

Deductive approach is a top-down approach that involves the formulation of hypothesis, collection of data, analysis of data and testing of hypothesis, then acceptance or rejection of hypothesis (Catterall, 2000). Data pertaining to CSFs and PPP will be collected and analyzed if a causal link has been identified to exist between CSFs and PPP. A research strategy will be developed, data collected on PPP and its success factors in the UAE, and data analyzed to come up with new perspectives specific to UAE.

2.13. Research Design

A research design it forms the blueprint for data collection, measurement of data, and data analysis. In order to address the research problem concretely, a researcher must employ an appropriate research design so as to coherently structure, collate, and organize the various aspects seeking to answer the research question(s). Due to the differences in the societal structure, language, religion, and culture variation across the UAE, a mixed methods research design is used in this study (Juselius, 2018). The mixed method approach will capture varying features of organizations in UAE. For instance, there is the case of some Islamic laws being entrenched in business operations and ethics so as to gain cooperation between the private sector and the government. This is a distinct scenario that may be impacting the success or failure of PPP, therefore, there is need to cater for such effects in order to obtain solid findings. Frequencies and means will be used to inform on how each CSF relates to PPP aspects. Differences will be identified with regard to reasons for adoption of PPP factors, organizational structure, and years of tenure at the organizations of concern.

2.14. Sampling Size and Techniques

Despite the fact that conducting a census increases the confidence interval, ensures coverage of a wide spectrum and wider coverage of a given population, this study will utilize simple random sampling. The downsides to conducting a census is that it is expensive, time-consuming, and its reliability can be compromised. As such, simple random sampling was applied to obtain a representative sample of the population (Li, 2018). 150 participants were recruited for the study. The sample included participants from both the government and private organizations. The sample also included individuals from different levels of management so as to gain in-depth understanding of PPP implementation policies and operations.

2.15. Data Collection

Both primary and secondary data collection methods were employed in obtaining essential data for the study (Lowry, 2015). Secondary data gave crucial information in relation to previous research done and the challenges faced with regard to CSFs and PPP. Primary data provided content on perceptions, concepts, and operational principles in relation to CSFs and PPP as was the case in private and governmental organizations.

2.15.1. Secondary Data Collection

Secondary data on CSFs and PPP was obtained from journals, books, online sources, and news articles. The data was crucial in laying the theoretical foundation essential for evaluating the findings from analysis of the primary data.

2.15.2. Primary Data Collection

Questionnaires were administered to various members of private and governmental organizations engaged with PPP in United Arabs Emirates. The questionnaires were designed in the survey monkey platform (an online entity that facilitates the carrying out of research by providing data collection platform and tools).

2.16. Access to Participants

Prior communication was made to the management of sampled organizations seeking permission to carry out the research. After permission was granted, random sampling technique was applied to pick participants for the study. Emails were sent to the potential participants requesting for their consent to participate in the study. Participants who consented to participate in the study were provided with a link and logins to access the questionnaire on survey monkey platform.

2.17. Research Approach

Both the deductive approach and inductive approach were utilized for the execution of this research. This was so as to understand and utilize the existing PPP theories and develop new insights regarding PPP.

2.18. Research Strategies

Research strategies employed for this study included a survey and case studies. A survey was carried out to examine the current businesses/projects phenomena in relation to PPP. Case studies were crucial in highlighting matters relating to PPP; previous PPP scenarios that had been researched and analyzed, different operational parameters of PPP with respect to different countries and time periods. The case studies also help illuminate on how the CSFs related with PPP in other countries than the UAE.

2.19. Questionnaire Design

A closed ended questionnaire was designed and utilized to capture perceptions of individuals in different levels of management, and from different organizations in UAE engaged in PPP. The questionnaire entailed; basic information of participant, adoption factors for PPP, financial resources aspects, technological resources aspects, and regulatory environmental factors. Questions concerning financial resources aspects, technological resources aspects, and regulatory environmental factors were measured on a 5 point Likert scale (where very likely =1, and very unlikely =5).

2.20. Role of the Researcher

The researcher ensured appropriate selection of design, method, and instrument. The researcher explained the study to potential participants without bias, conducted the survey according to design, handled the obtained data by design, and analyzed and interpreted the data by design.

2.21. Ethical Considerations

This research work ensured that the three principles of research ethics, (respect for persons, beneficence, and justice) were adhered to (Hermeren, 2014). Respect for persons was ensured by providing complete information about the study, seeking participant's consent and maintaining of confidentiality. Principle of beneficence; efforts were made to no minimum or no possible risk to the participant with regard to this study. Principle of justice; fairness was practiced in the recruitment of participants, and questions asked were relevant to the organizations that the participants worked at.

CHAPTER 4: RESULTS AND FINDINGS

This chapter presents the results of the analysis of the collected data. The respondents were expected to respond to 63 questions presented in a survey questionnaire. The respondent answered few general questions before proceeding to specific survey questions on the regulatory environmental factors, technological factors, and the financial resource factors influencing success of the PPP. Most specific questions were Likert scale questions where the respondents gave the extent to which they thought different variables would impact the success of PPP projects. Bot percentage tables and graphs were used to present the data.

4.1.Descriptive statistics

A total of 136 organizations participated in the study for which 68 were private while 68 were public. At this stage data is run in SPSS and the results obtained presented in tables and graphs. Basic statistical analysis is applied to obtain the average scores, the minimum as well as the maximum values. Moreover, we are able to see the variability, spread, and patterns in the data. Below is a data table showing the organization’s experience in PPP for both public and private organizations together.

Table 1**: Mean ranking for both public and private organizations showing their commitment towards PPP success.**

Descriptive Data

		N	Mean	Std. Deviation
Regulatory Environment Factors	Public	68	44.1197	3.72765
	Private	68	42.5185	4.13614
	Total	136	43.3191	3.93190
Technological Factors	Public	68	37.7135	3.81143
	Private	68	36.15009	3.88041
	Total	136	36.93180	3.84592
Financial resource Factors	Public	68	38.79661	3.44891
	Private	68	35.52921	3.50973
	Total	136	37.16291	3.47932

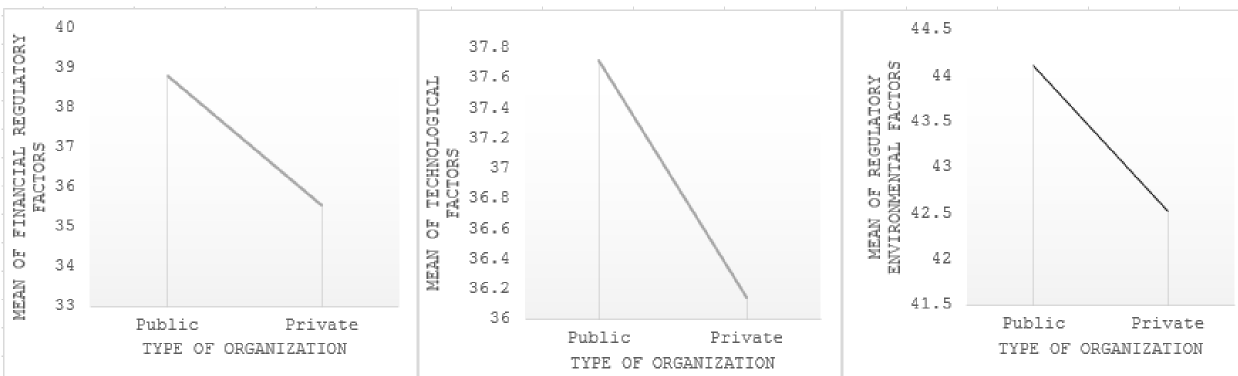
Test for homogeneity of variance gave the following results.

Test of Homogeneity of Variances

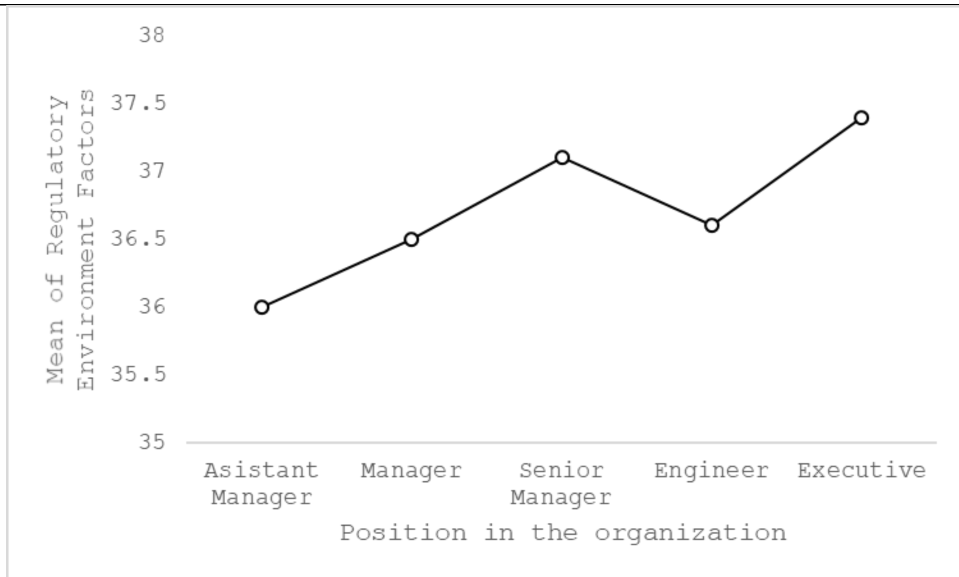
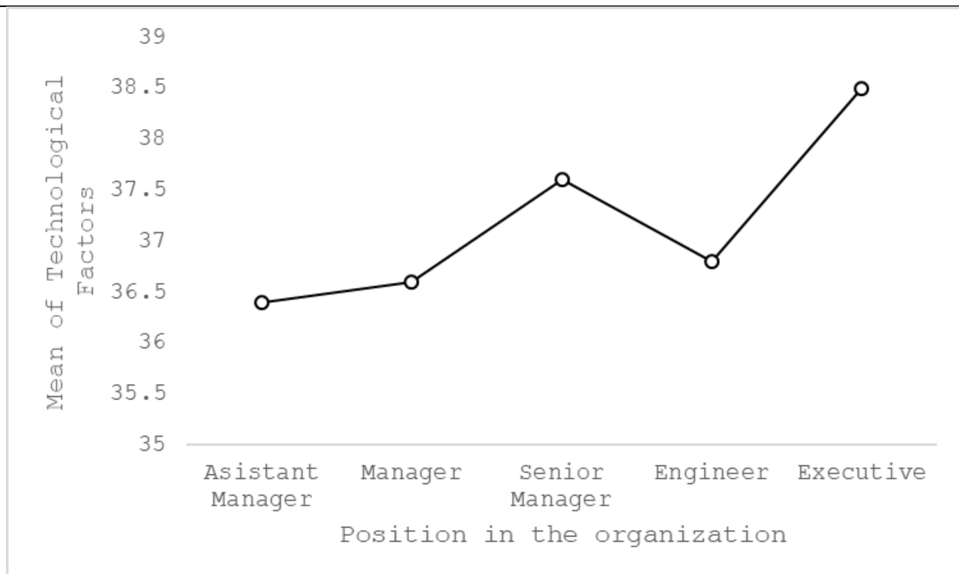
	Levene Statistic	df1	df2	Sig.

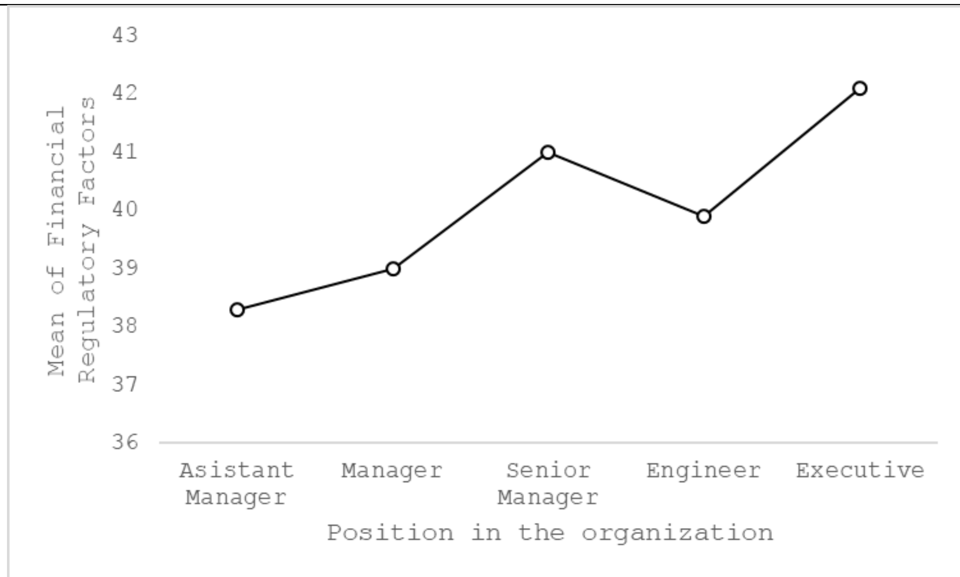
Regulatory Environment Factors	.041	1	134	.831
Technological Factors	.823	1	134	.227
Financial resource Factors	.006	1	134	.762

Since the significance level for all the variables is greater than 0.05, the assumption on homogeneity of variance is ascertained. We will use the mean plots to determine the role of public and private organizations towards success of the PPP in United Arab Emirates.

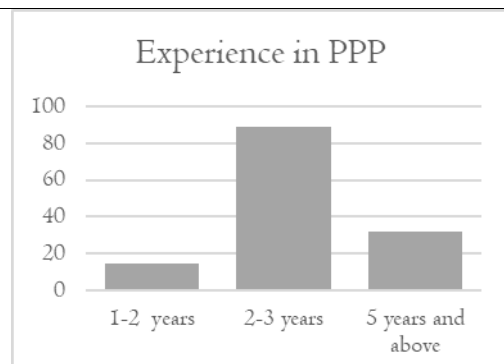


The mean was higher for public organizations as opposed to private for all the success factors. This shows that the public organizations play a major role to the success of PPP probably due to government commitment and service centered approach as opposed to profit centered approach. To the question on the experience in PPP, the following frequencies and percentages were obtained from the data.

Regulatory Environment Factors	
Technological Factors	

Financial Regulatory Factors	

The table of the mean success factors for the five levels of management. Assistant managers seem to play the least role for the success of the PPP for all the factors, regulatory environment having the lowest ratings. The executive on the other side have the highest rating in their contribution to the success of the PPP. Senior managers, engineers and managers follow suite.

	Frequency	Percent	
1-2 years	15	11.03%	
3-4 years	89	65.44%	
5 years and above	32	23.53%	

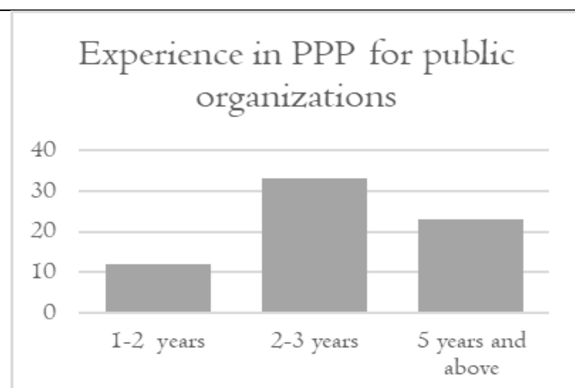
Overall, the organizations from which the respondents worked 11.03% had tried PPP for a period below 2 years, 65.44% for 3 – 4 years, and 23.53% for more than 5 years. The findings were also grouped according to the type of organization and the following results obtained across groups.

Private	

	Frequency	
1-2 years	3	4.41%
2-3 years	56	82.35%
5 years and above	9	13.24%

For the private organizations where the respondents worked, 4.41% had tried PPP for a period between 1 and 2 years, 82.35% between 3 and 4 years, and 13.24% for five years or more. Similarly, the percentage frequencies for the public organizations were 17.65% for those who had tried PPP for a period between 1 and 2 years, 48.53 for a period between 3 and 4 years, and 33.82% for five years or more.

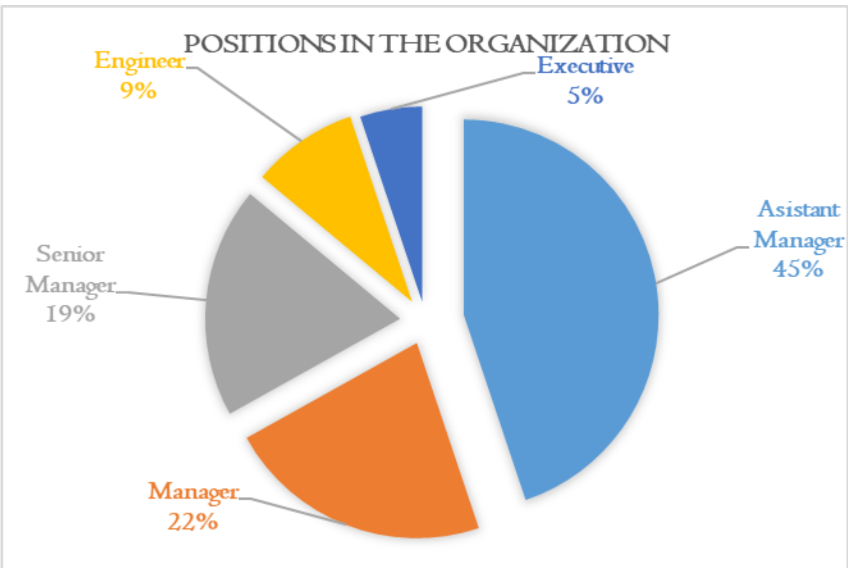
Public		
	Frequency	Percent
1-2 years	12	17.65%
2-3 years	33	48.53%
5 years and above	23	33.82%



Half of the respondents came from private and the other from public organizations. The stratification ensured better comparison of the two strata's and reduce sampling error. The responses to the question on position the respondents held in their organizations were tabulated as follows.

What is your position in the organization		
	Frequency	Percent
Assistant Manager	61	44.85%
Manager	30	22.06%
Senior Manager	26	19.12%
Engineer	12	8.82%
Executive	7	5.15%

A pie chart of the responses is shown

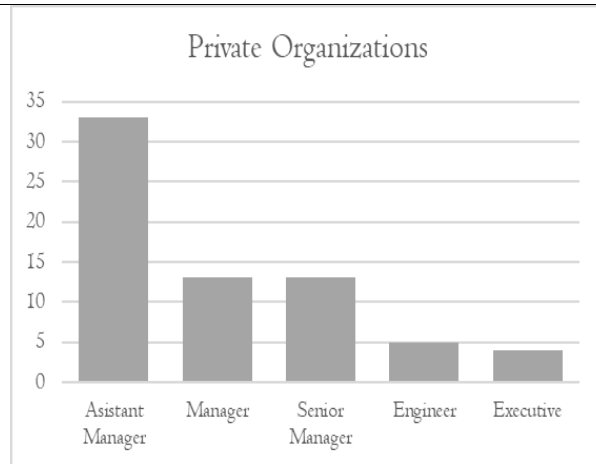


44.85% of the respondents were assistant managers, 22.06% were managers, 19.12% were senior managers, 8.82% engineers, and 5.15% were executives in the organizations they worked.

Same results were grouped according sectors and the results were tabulated in the tables below.

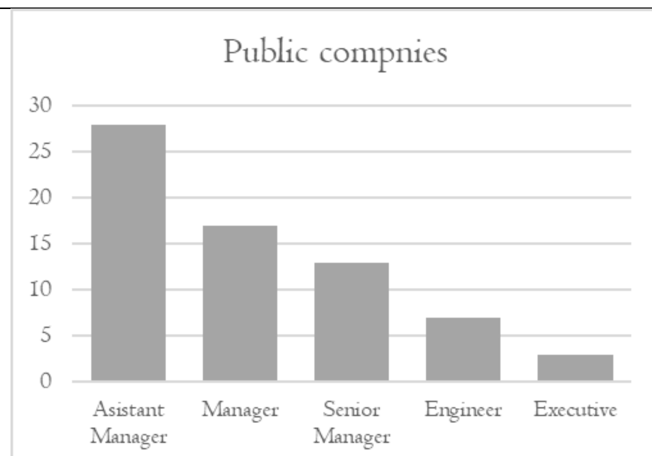
Private			
	Frequency	Percent	
Assistant Manager	33	48.53%	

Manager	13	19.12%
Senior Manager	13	19.12%
Engineer	5	7.35%
Executive	4	5.88%



From the private organizations, 48.53% of the respondents were assistant managers, 19.12% were managers and a similar figure for the senior managers, 7.35% were engineers, and 5.88% were executive. Similarly, for the public organizations, 41.18% of the respondents were assistant managers, 25.00% were managers, 19.125 senior managers, 10.29% were engineers, and 4.41% were executive.

	Frequency	Percent
Assistant Manager	28	41.18%
Manager	17	25.00%
Senior Manager	13	19.12%
Engineer	7	10.29%
Executive	3	4.41%

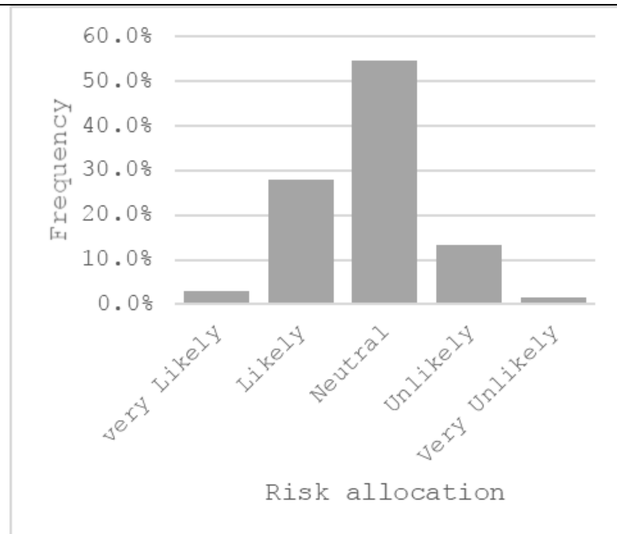


One of the postulates success factor for the PPP is financial resource factors for which several Likert scale questions were formulated. The researcher sought to determine the to what extent the respondent thought that the role of financial resources impacted the role of PPP. The exact question was ‘To what extent do you think **financial resources** impact on the success of PPP projects and how can this be **leveraged** in in a country?' the questions were as listed in the table below

Success Factor **<u>Rating</u>**: #1Very Likely, #2 Likely, #3 Neutral, #4 Unlikely, #5 Very Unlikely
Risk allocation
Government guarantee
Local financial market
Macroeconomic conditions
Cost efficiency in projects
Financial feasibility in PPP
Financial capacity
Probable growth potential
Financial guarantee from the government
Project growth potential & cost saving
Probable compatibility of private & Grant Financing to the realization of project goals and objectives
The capacity of the capital market
Critical market instruments
Sources of funding
The economic and political stability of the country
Appropriate economic policy
Impact of macroeconomic environment

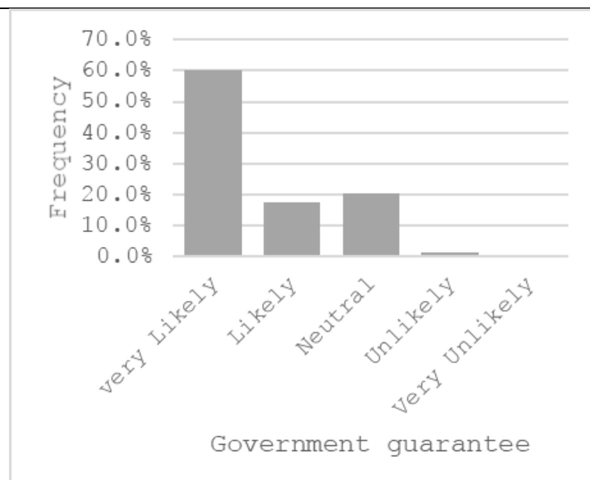
Monetary policies

Risk allocation			
		Frequency	Percent
Valid	very Likely	2	2.9%
	Likely	19	27.9%
	Neutral	37	54.4%
	Unlikely	9	13.2%
	Very Unlikely	1	1.5%



Majority of the respondents, 54.4% were neutral on whether risk allocation contributed to success of the PPP.

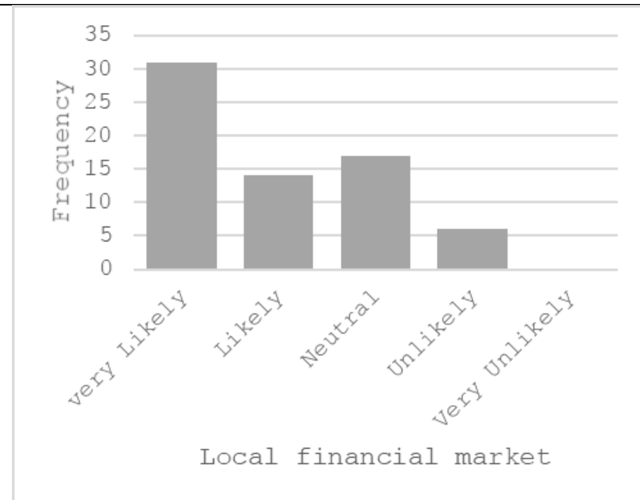
Government guarantee			
		Frequency	Percent
Valid	very Likely	41	60.3%
	Likely	12	17.6%
	Neutral	14	20.6%
	Unlikely	1	1.5%
	Very Unlikely	0	0.0%



60.3% of the respondents indicated that government guarantee could very likely result in success of PPP.

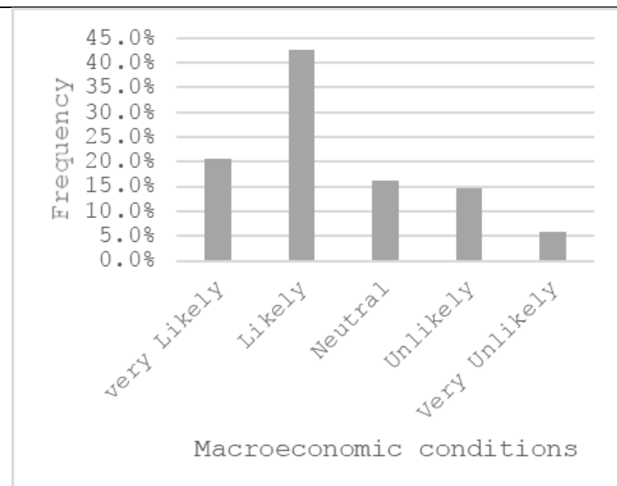
Local financial market	

		Frequency	Percent
Valid	very Likely	31	45.6%
	Likely	14	20.6%
	Neutral	17	25.0%
	Unlikely	6	8.8%
	Very Unlikely	0	0.0%



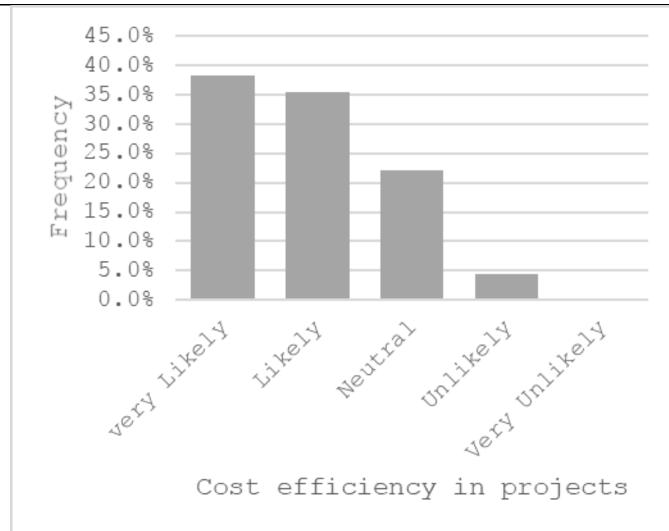
45.6% of the respondents indicated that local financial markets were very likely a cause of the PPP success.

Macroeconomic conditions			
		Frequency	Percent
Valid	very Likely	14	20.6%
	Likely	29	42.6%
	Neutral	11	16.2%
	Unlikely	10	14.7%
	Very Unlikely	4	5.9%

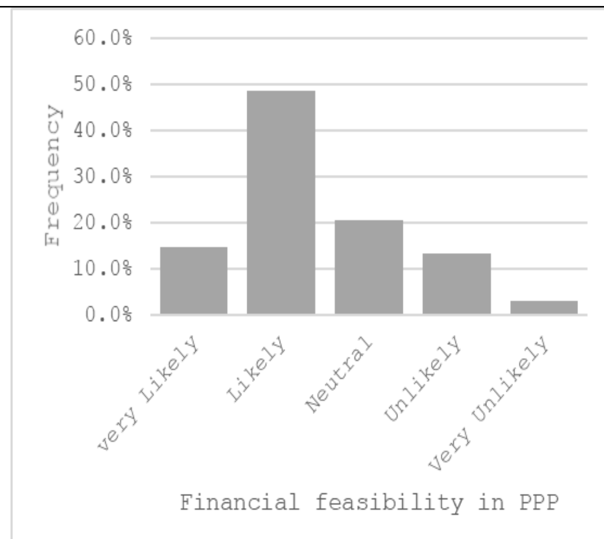


42.6% thought that macroeconomic conditions could cause success in PPP.

Cost efficiency in projects			
		Frequency	Percent
Valid	very Likely	26	38.2%
	Likely	24	35.3%
	Neutral	15	22.1%

	Unlikely	3	4.4%	
	Very Unlikely	0	0.0%	

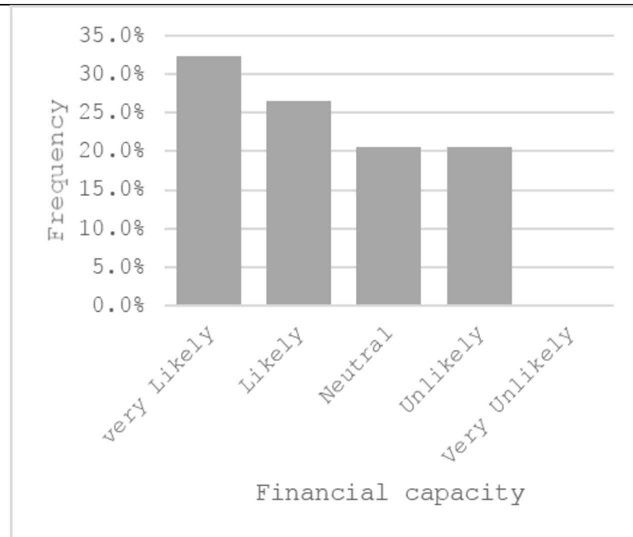
38.2% of the respondents thought that cost efficiency in projects would most likely result to success in PPP.

Financial feasibility in PPP				
		Frequency	Percent	
Valid	very Likely	10	14.7%	
	Likely	33	48.5%	
	Neutral	14	20.6%	
	Unlikely	9	13.2%	
	Very Unlikely	2	2.9%	

48.5% thought that financial feasibility in PPP would likely result in PPP success.

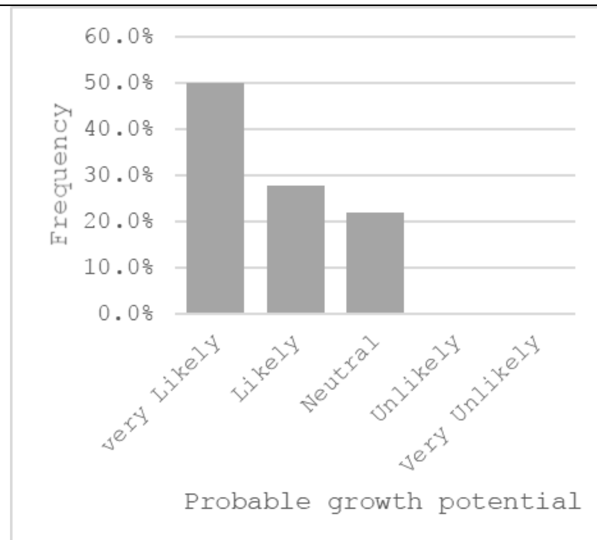
Financial capacity				
		Frequency	Percent	
Valid	very Likely	22	32.4%	
	Likely	18	26.5%	

	Neutral	14	20.6%
	Unlikely	14	20.6%
	Very Unlikely	0	0.0%



32.4% of the respondents thought that financial capacity would very likely cause success in PPP.

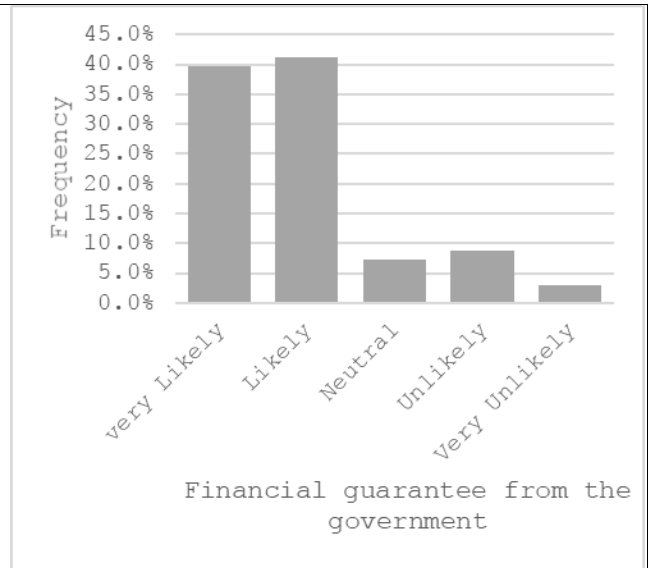
Probable growth potential			
		Frequency	Percent
Valid	very Likely	34	50.0%
	Likely	19	27.9%
	Neutral	15	22.1%
	Unlikely	0	0.0%
	Very Unlikely	0	0.0%



50.0% of the respondents thought that probable growth potential would motivate success in PPP.

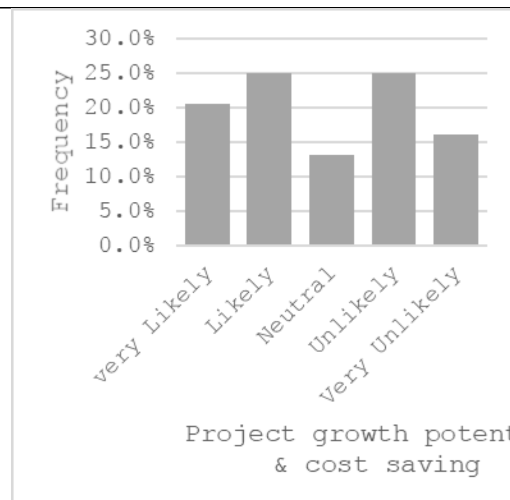
Financial guarantee from the government			
		Frequency	Percent
Valid	very Likely	27	39.7%
	Likely	28	41.2%
	Neutral	5	7.4%

	Unlikely	6	8.8%
	Very Unlikely	2	2.9%



41.2% and 39.7% thought that financial guarantee from the government either was likely or very likely to result in success in PPP.

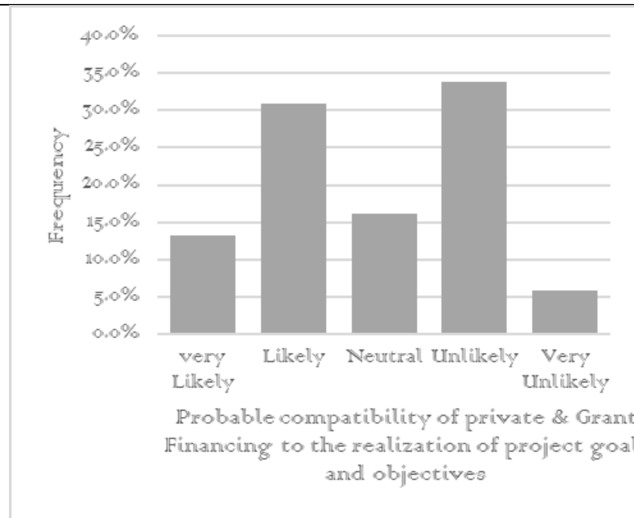
Project growth potential & cost saving			
		Frequency	Percent
Valid	very Likely	14	20.6%
	Likely	17	25.0%
	Neutral	9	13.2%
	Unlikely	17	25.0%
	Very Unlikely	11	16.2%



Respondents had mixed reactions on the ability of the project growth potential and cost saving in causing PPP success where 25% thought that I was likely and a similar number thought it was unlikely. The rest of the variables are as tabulated below.

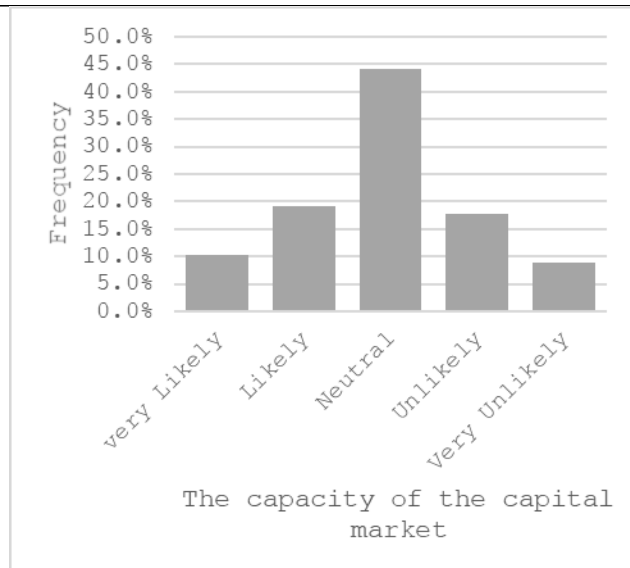
Probable compatibility of private & Grant Financing to the realization of project goals and objectives

		Frequency	Percent
Valid	very Likely	9	13.2%
	Likely	21	30.9%
	Neutral	11	16.2%
	Unlikely	23	33.8%
	Very Unlikely	4	5.9%



33.8% of the respondent thought that probable compatibility of private & Grant Financing to the realization of project goals and objectives was unlikely to cause success of the PPP.

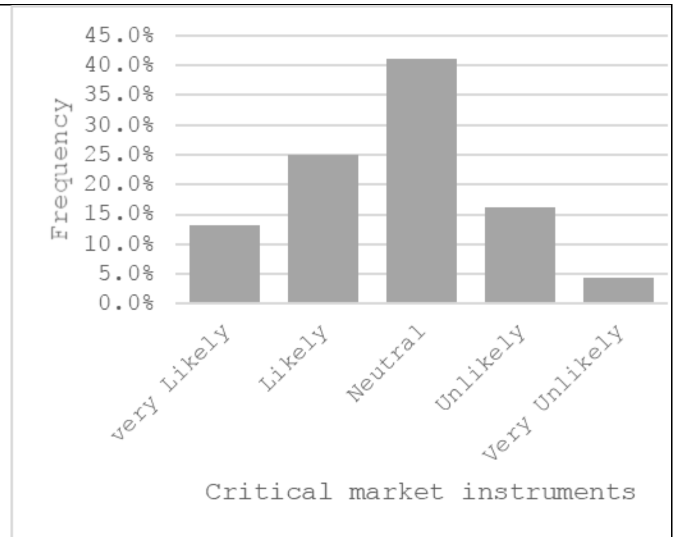
The capacity of the capital market			
		Frequency	Percent
Valid	very Likely	7	10.3%
	Likely	13	19.1%
	Neutral	30	44.1%
	Unlikely	12	17.6%
	Very Unlikely	6	8.8%



44.1% were neutral on whether capacity of the capital market was likely to cause success of the PPP.

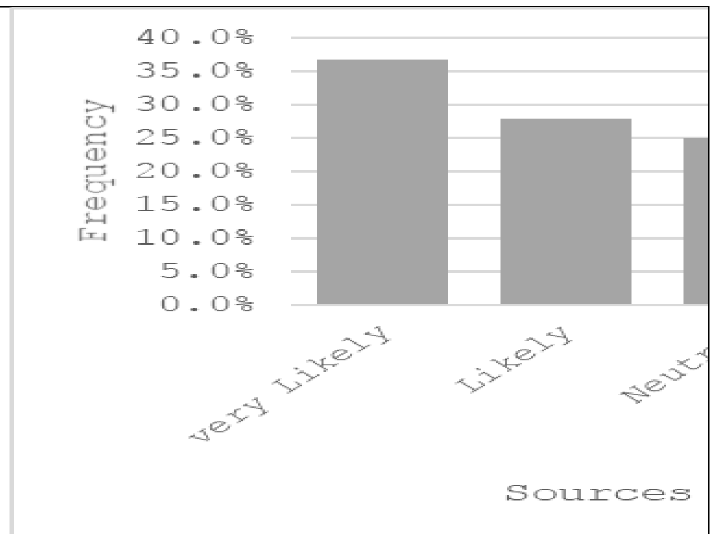
Critical market instruments			
		Frequency	Percent
	very Likely	9	13.2%

Valid	Likely	17	25.0%
	Neutral	28	41.2%
	Unlikely	11	16.2%
	Very Unlikely	3	4.4%



41.2% of the respondents thought that critical market instruments were not likely to affect success of PPP.

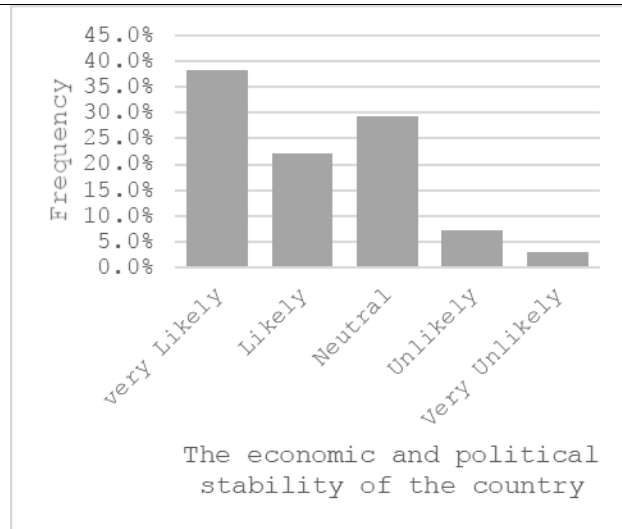
Sources of funding			
		Frequency	Percent
Valid	very Likely	25	36.8%
	Likely	19	27.9%
	Neutral	17	25.0%
	Unlikely	7	10.3%
	Very Unlikely	0	0.0%



36.8% thought that sources of funding were very likely factors for success of PPP.

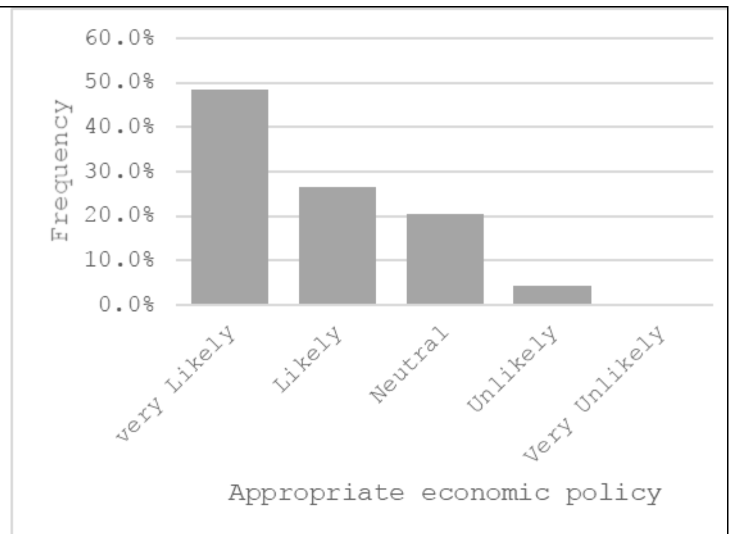
The economic and political stability of the country			
		Frequency	Percent

Valid	very Likely	26	38.2%
	Likely	15	22.1%
	Neutral	20	29.4%
	Unlikely	5	7.4%
	Very Unlikely	2	2.9%



38.2% of the respondents thought that the economic and political stability of the country was very likely to cause success of the PPP.

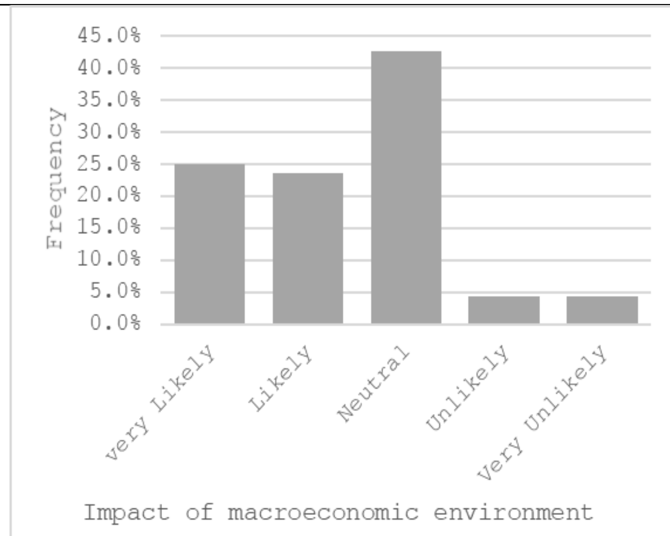
Appropriate economic policy			
		Frequency	Percent
Valid	very Likely	33	48.5%
	Likely	18	26.5%
	Neutral	14	20.6%
	Unlikely	3	4.4%
	Very Unlikely	0	0.0%



48.5% of the respondents thought that formulating appropriate economic policies would very likely lead to success of PPP.

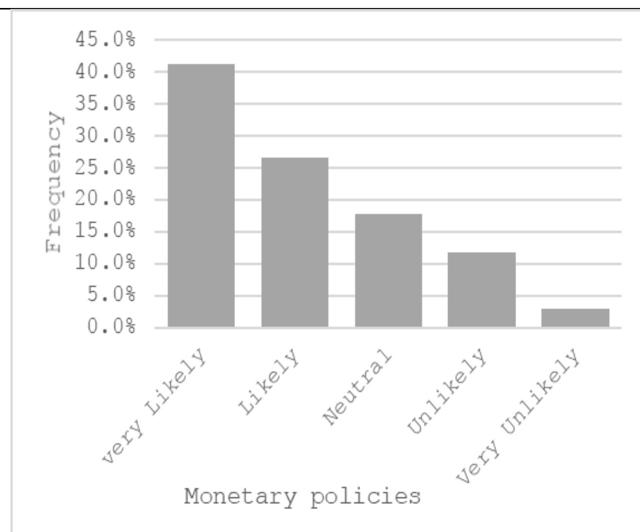
Impact of macroeconomic environment	

		Frequency	Percent
Valid	very Likely	17	25.0%
	Likely	16	23.5%
	Neutral	29	42.6%
	Unlikely	3	4.4%
	Very Unlikely	3	4.4%



42.6% were unsure of the impact of macroeconomic environment toward success of PPP.

Monetary policies			
		Frequency	Percent
Valid	very Likely	28	41.2%
	Likely	18	26.5%
	Neutral	12	17.6%
	Unlikely	8	11.8%
	Very Unlikely	2	2.9%



41.2% thought that monetary policies were very likely to affect success of the PPP.

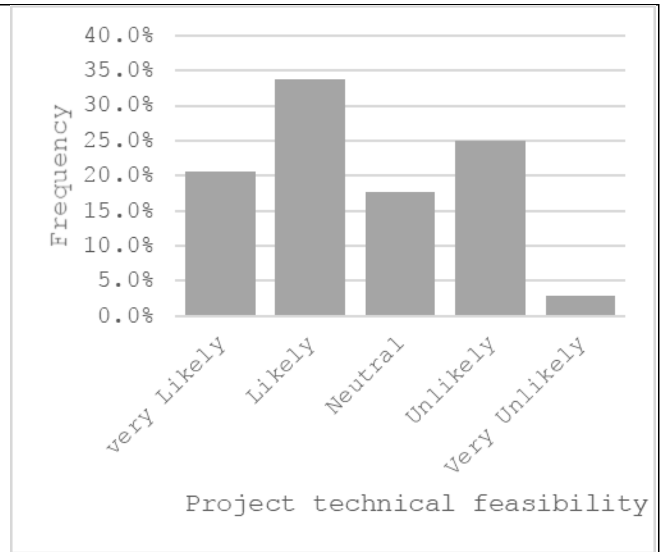
Technological factors

The other Likert scale question was on the technological factors where the respondents were asked to rank the factors on the level of likelihood to cause success of the PPP. The questions read as below

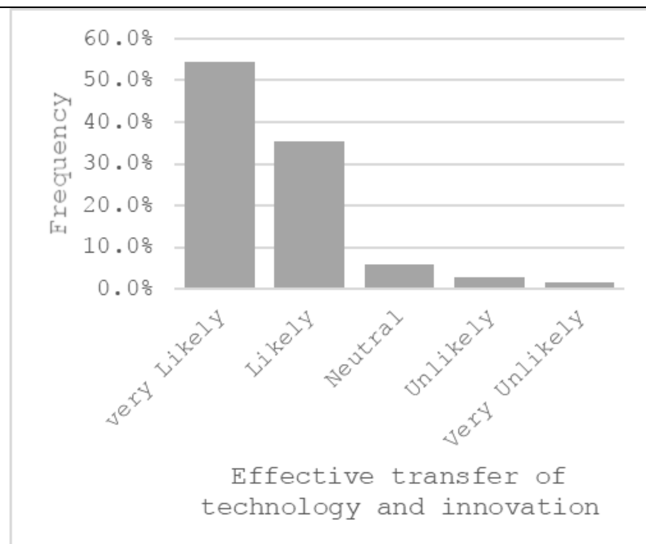
Success Factor **Rating**#1very likely, #2 likely, #3 neutral, #4 unlikely, #5 very unlikely
Project technical feasibility
Effective transfer of technology and innovation
Suitability of the PPP arrangement
Project scope and definition
Financial analysis
Significance of innovations
Practicality of projects
Simulation
Transfer of modern technology
Need to achieve International Standards
Quality of project services

The responses are as tabulated below. The leading indicated likelihood will be indicated.

Project technical feasibility				
		Frequency	Percent	
Valid	very Likely	14	20.6%	
	Likely	23	33.8%	
	Neutral	12	17.6%	
	Unlikely	17	25.0%	

	Very Unlikely	2	2.9%	

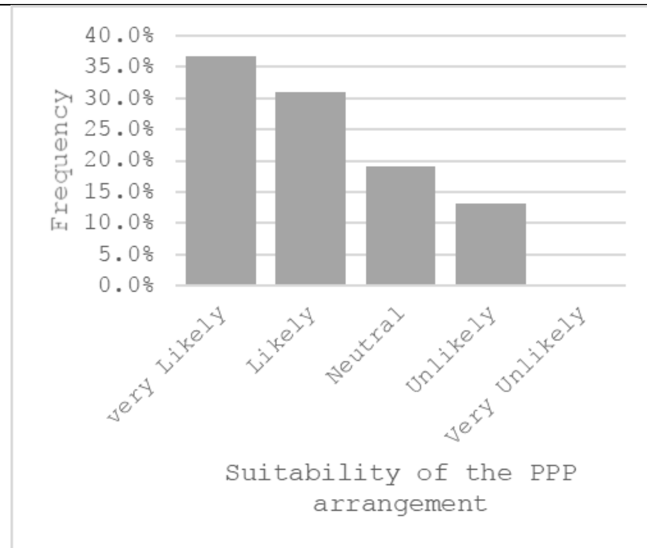
33.8% indicated that project technical feasibility was likely to cause success of the PPP.

Effective transfer of technology and innovation				
		Frequency	Percent	
Valid	very Likely	37	54.4%	
	Likely	24	35.3%	
	Neutral	4	5.9%	
	Unlikely	2	2.9%	
	Very Unlikely	1	1.5%	

A majority of the respondents 54.4% thought that effective transfer of technology and innovation would very likely cause success in PPP.

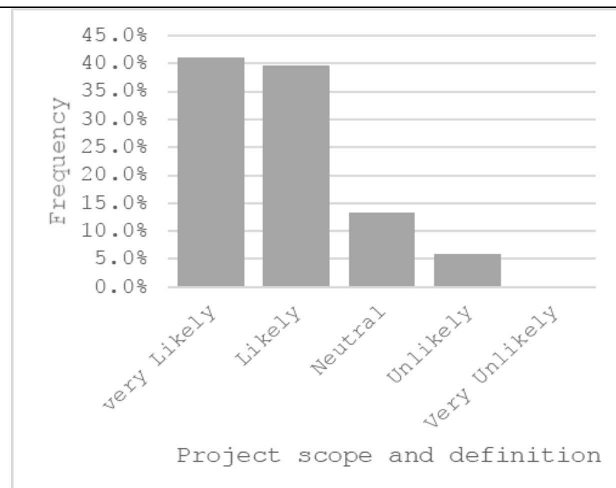
Suitability of the PPP arrangement				
		Frequency	Percent	

Valid	very Likely	25	36.8%
	Likely	21	30.9%
	Neutral	13	19.1%
	Unlikely	9	13.2%
	Very Unlikely	0	0.0%



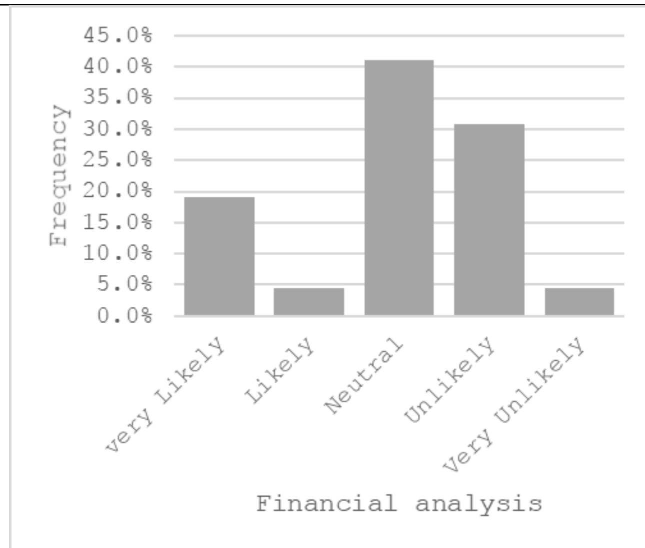
36.8% thought that suitability of the PPP arrangement was very likely to cause success.

Project scope and definition			
		Frequency	Percent
Valid	very Likely	28	41.2%
	Likely	27	39.7%
	Neutral	9	13.2%
	Unlikely	4	5.9%
	Very Unlikely	0	0.0%

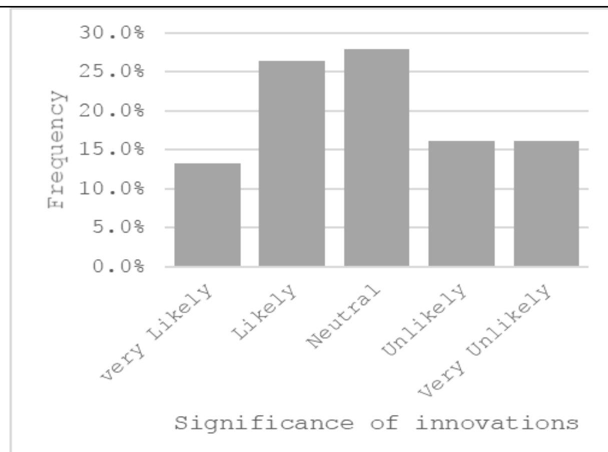


41.2% thought that project scope and definition were very likely to cause success in PPP.

Financial analysis			
		Frequency	Percent
Valid	very Likely	13	19.1%
	Likely	3	4.4%

	Neutral	28	41.2%	
	Unlikely	21	30.9%	
	Very Unlikely	3	4.4%	

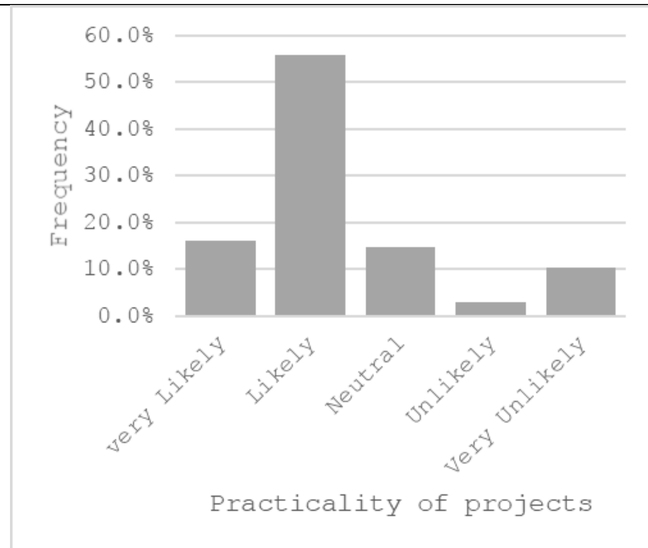
41.2% of the respondents were neutral on the likelihood of financial analysis to cause success of PPP.

Significance of innovations				
		Frequency	Percent	
Valid	very Likely	9	13.2%	
	Likely	18	26.5%	
	Neutral	19	27.9%	
	Unlikely	11	16.2%	
	Very Unlikely	11	16.2%	

27.9% of the respondents were neutral on whether the significance of innovations would result to success of the PPP.

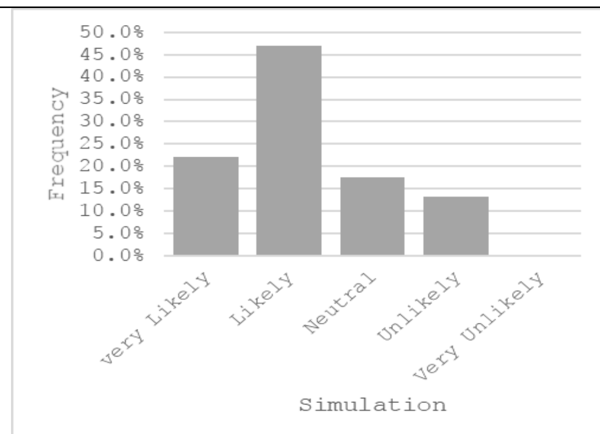
Practicality of projects				
		Frequency	Percent	
Valid	very Likely	11	16.2%	

	Likely	38	55.9%
	Neutral	10	14.7%
	Unlikely	2	2.9%
	Very Unlikely	7	10.3%



55.9% though that it was likely for the practicality of the projects to cause success in PPP.

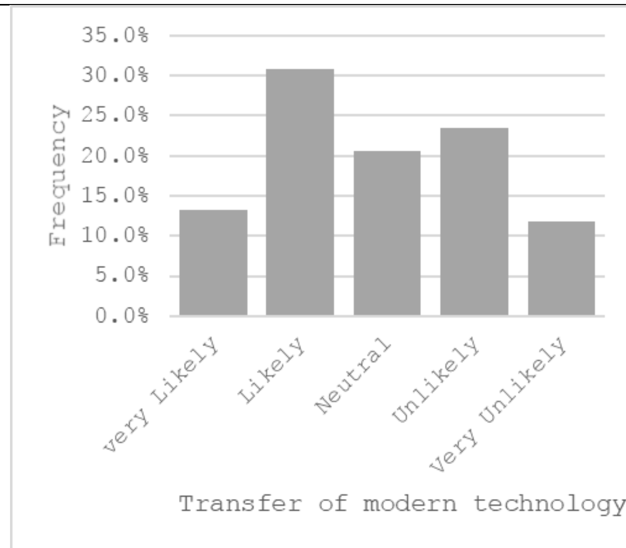
Simulation			
		Frequency	Percent
Valid	very Likely	15	22.1%
	Likely	32	47.1%
	Neutral	12	17.6%
	Unlikely	9	13.2%
	Very Unlikely	0	0.0%



47.1% of the respondents thought that simulation would likely cause success in PPP.

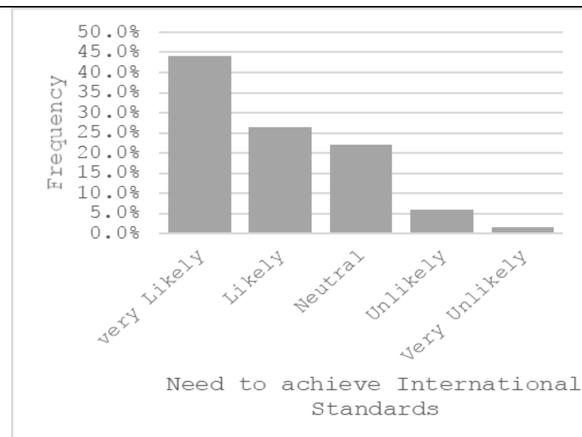
Transfer of modern technology			
		Frequency	Percent
Valid	very Likely	9	13.2%
	Likely	21	30.9%
	Neutral	14	20.6%

	Unlikely	16	23.5%
	Very Unlikely	8	11.8%



30.9% of the respondents thought that transfer of modern technology would likely cause success of the PPP.

Need to achieve International Standards			
		Frequency	Percent
Valid	very Likely	30	44.1%
	Likely	18	26.5%
	Neutral	15	22.1%
	Unlikely	4	5.9%
	Very Unlikely	1	1.5%



44.1% of the respondents thought that achievement of national standards would very likely cause success of the PPP.

Quality of project services			
		Frequency	Percent
Valid	very Likely	22	32.4%

	Likely	13	19.1%	
	Neutral	29	42.6%	
	Unlikely	3	4.4%	
	Very Unlikely	1	1.5%	

42.6% thought that quality of project service would not have effect on the PPP success.

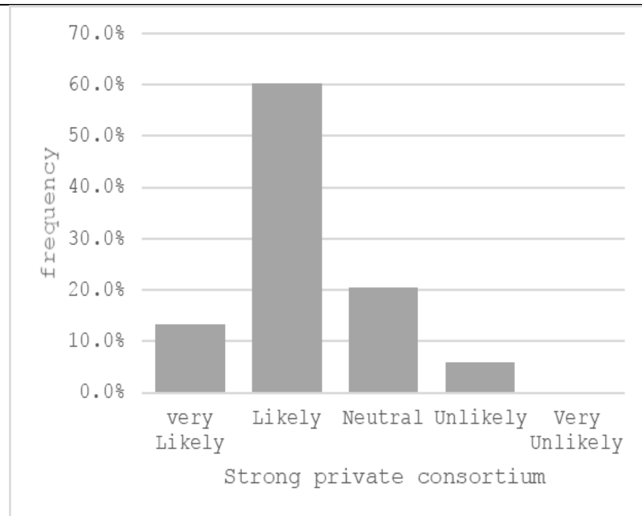
On the last question, respondents were asked to rank regulatory environmental factors that they thought would cause success of the PPP. The actual question was ‘Please rate the role of role of **regulatory environment factors** in increasing the success of PPP and state a way(s) of leveraging them increase the viability of UAE projects.’ They were to respond to the questions below.

Success Factor **Rating**#1Very likely, #2 Likely, #3 Neutral, #4 Unlikely, #5 Very unlikely
Strong private consortium
Transparent and competitive procurement process
Political support
Favourable legal framework
Shared authority between the private and public sector
Sound economic policy
Public/ community support

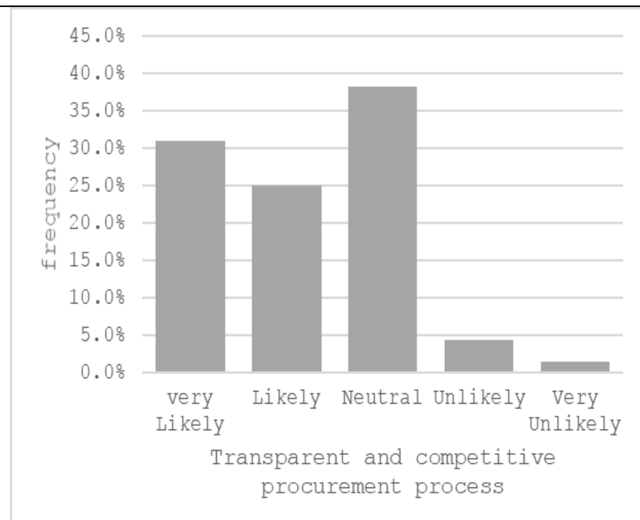
The capability of the government to fulfil the contract
Leveraging private funding
The significance of stakeholder acceptance
Stakeholder commitment
Public opinion and concerns
Social needs by the public
The public and private consortium
Highly organized private sector
Competent personnel
Technical capabilities
Availability of adequate Financial resources
Privacy of information disclosure
Project experience of the firm
Profit expectations
Appropriate cost, time and quality management
Ease and timely project implementation
Highly organized private sector
Sustainable procurement process
Healthy competition in the procurement process
Proficient contract administration
Asset transfer regulations
Stakeholder involvement in project planning

The results are as shown in the tables below.

Strong private consortium			
		Frequency	Percent
Valid	very Likely	9	13.2%
	Likely	41	60.3%
	Neutral	14	20.6%
	Unlikely	4	5.9%
	Very Unlikely	0	0.0%
60.3% = likely			

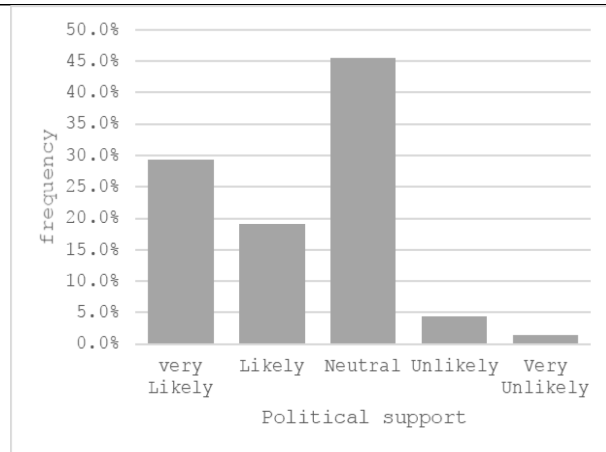


Transparent and competitive procurement process			
		Frequency	Percent
Valid	very Likely	21	30.9%
	Likely	17	25.0%
	Neutral	26	38.2%
	Unlikely	3	4.4%
	Very Unlikely	1	1.5%
38.2% = Neutral			

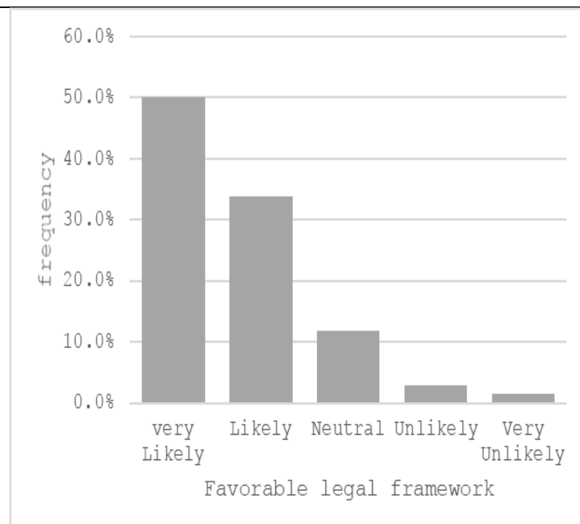


Political support

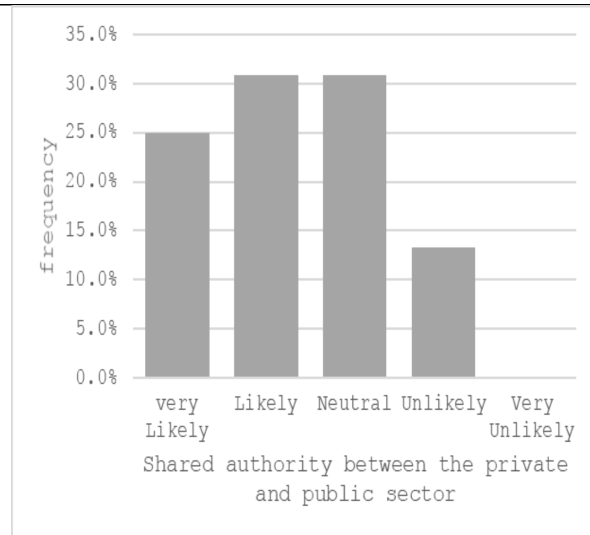
		Frequency	Percent
Valid	very Likely	20	29.4%
	Likely	13	19.1%
	Neutral	31	45.6%
	Unlikely	3	4.4%
	Very Unlikely	1	1.5%
45.6% = neutral			

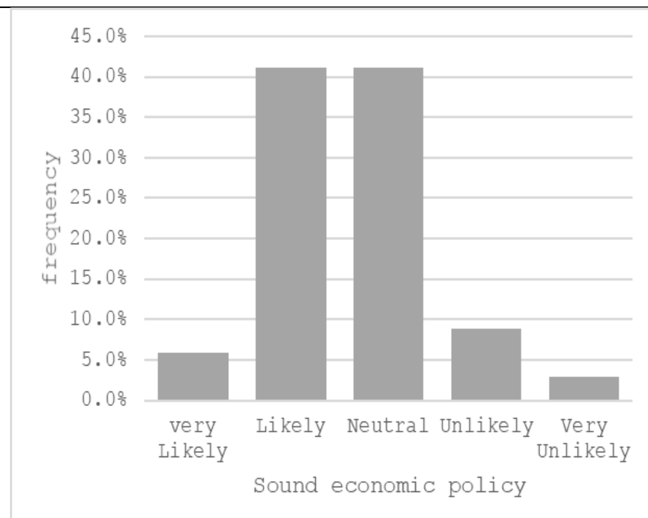


Favourable legal framework			
		Frequency	Percent
Valid	very Likely	34	50.0%
	Likely	23	33.8%
	Neutral	8	11.8%
	Unlikely	2	2.9%
	Very Unlikely	1	1.5%
50.00% = very likely			



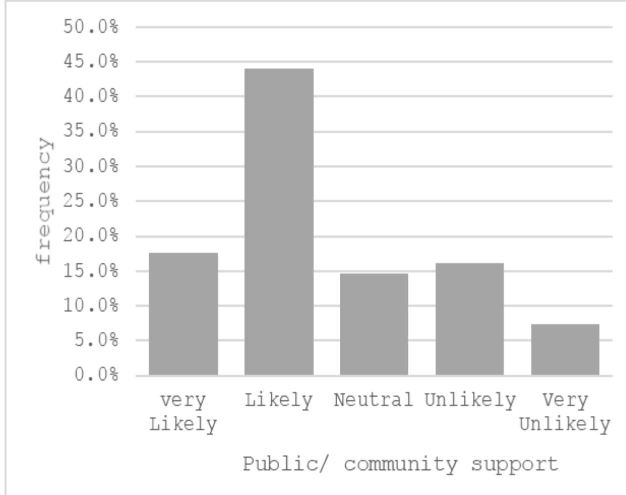
Shared authority between the private and public sector			
		Frequency	Percent
Valid	very Likely	17	25.0%

	Likely	21	30.9%	
	Neutral	21	30.9%	
	Unlikely	9	13.2%	
	Very Unlikely	0	0.0%	
30.9% = likely = neutral				

Sound economic policy				
		Frequency	Percent	
Valid	very Likely	4	5.9%	
	Likely	28	41.2%	
	Neutral	28	41.2%	
	Unlikely	6	8.8%	
	Very Unlikely	2	2.9%	
41.2% = likely = neutral				

Public/ community support

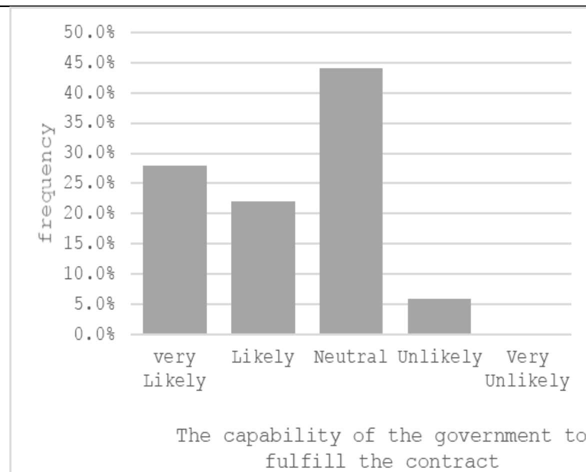
		Frequency	Percent
Valid	very Likely	12	17.6%
	Likely	30	44.1%
	Neutral	10	14.7%
	Unlikely	11	16.2%
	Very Unlikely	5	7.4%



44.1% = likely

The capability of the government to fulfil the contract

		Frequency	Percent
Valid	very Likely	19	27.9%
	Likely	15	22.1%
	Neutral	30	44.1%
	Unlikely	4	5.9%
	Very Unlikely	0	0.0%

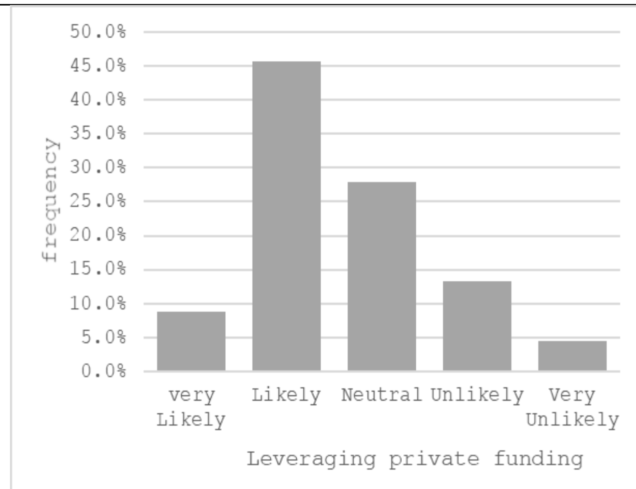


44.1% = neutral

Leveraging private funding

		Frequency	Percent
Valid	very Likely	6	8.8%

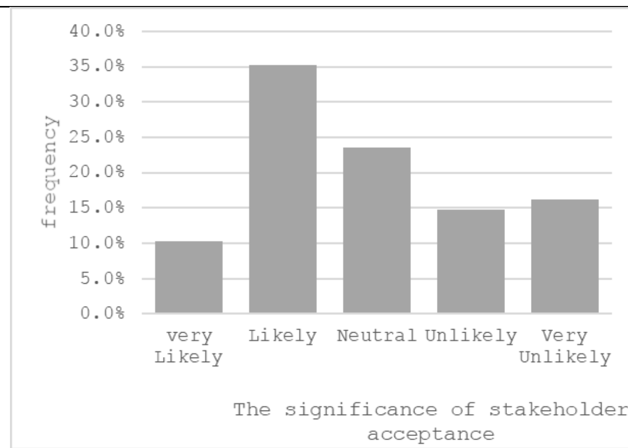
	Likely	31	45.6%
	Neutral	19	27.9%
	Unlikely	9	13.2%
	Very Unlikely	3	4.4%



44.1% = neutral

The significance of stakeholder acceptance

		Frequency	Percent
Valid	very Likely	7	10.3%
	Likely	24	35.3%
	Neutral	16	23.5%
	Unlikely	10	14.7%
	Very Unlikely	11	16.2%

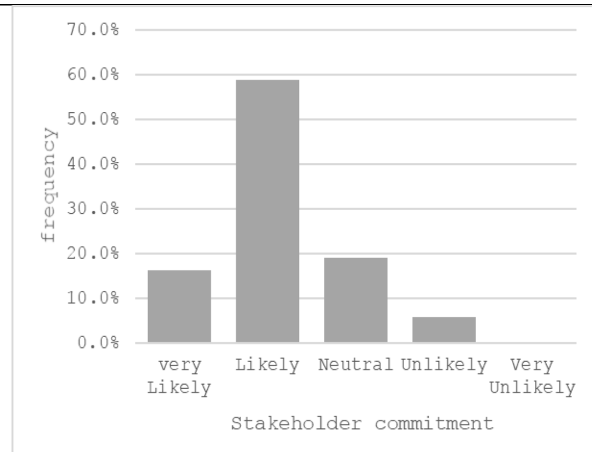


35.3% = likely

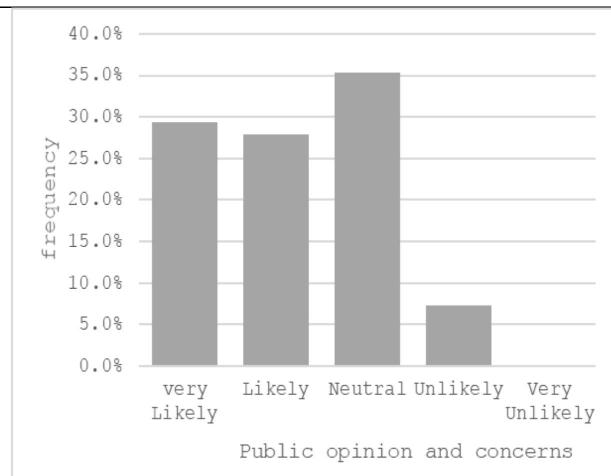
Stakeholder commitment

		Frequency	Percent
Valid	very Likely	11	16.2%
	Likely	40	58.8%

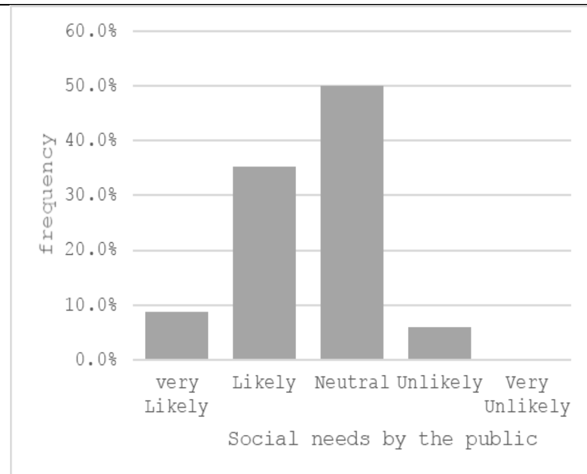
	Neutral	13	19.1%
	Unlikely	4	5.9%
	Very Unlikely	0	0.0%
58.8% = likely			

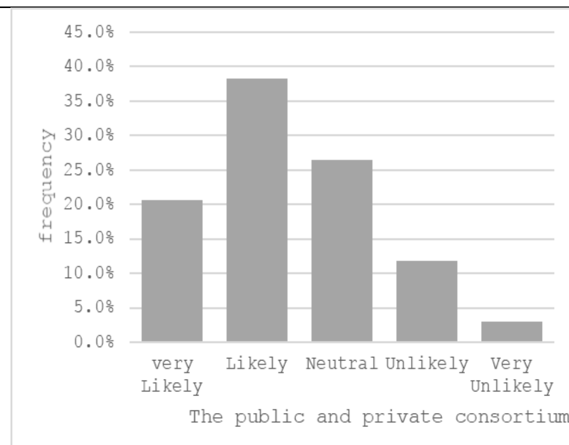


Public opinion and concerns			
		Frequency	Percent
Valid	very Likely	20	29.4%
	Likely	19	27.9%
	Neutral	24	35.3%
	Unlikely	5	7.4%
	Very Unlikely	0	0.0%
35.3% = neutral			

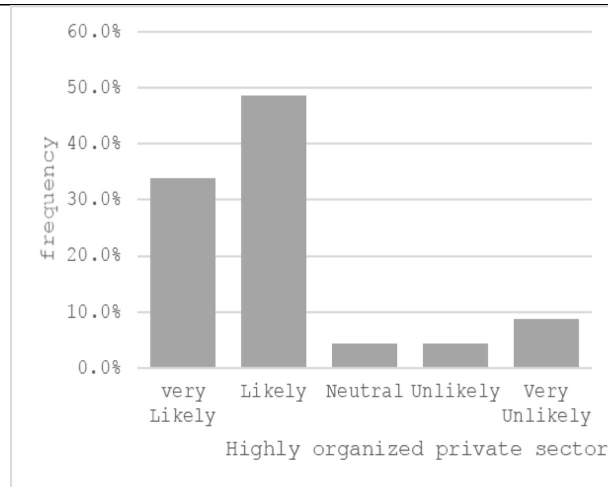


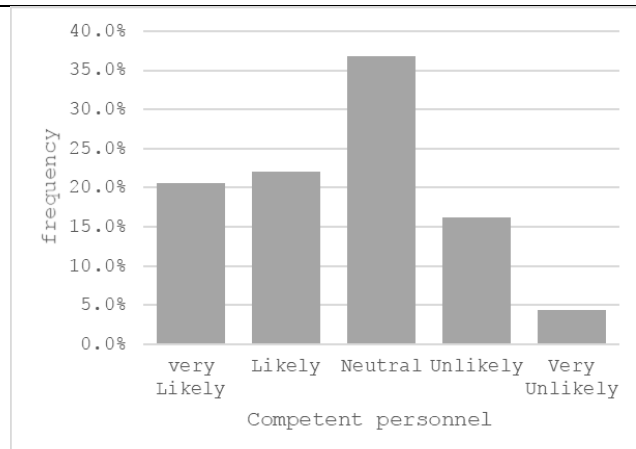
Social needs by the public			
		Frequency	Percent
Valid	very Likely	6	8.8%
	Likely	24	35.3%

	Neutral	34	50.0%	
	Unlikely	4	5.9%	
	Very Unlikely	0	0.0%	
50.0% = neutral				

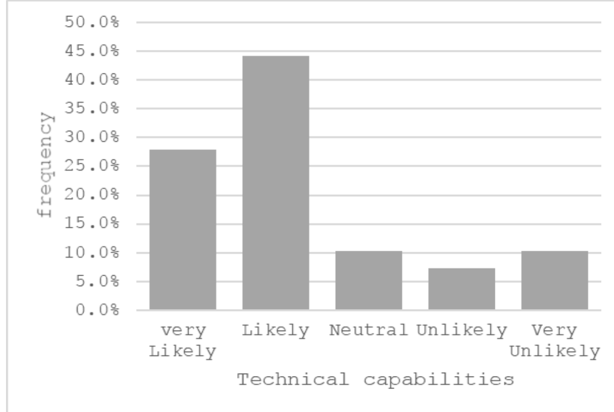
The public and private consortium				
		Frequency	Percent	
Valid	very Likely	14	20.6%	
	Likely	26	38.2%	
	Neutral	18	26.5%	
	Unlikely	8	11.8%	
	Very Unlikely	2	2.9%	
38.2% = likely				

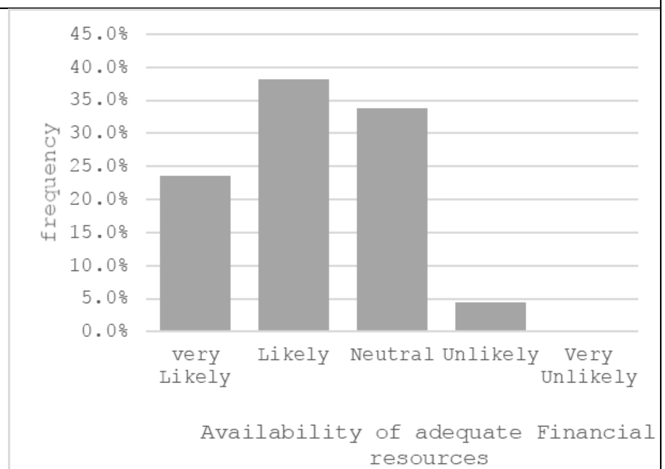
Highly organized private sector				
		Frequency	Percent	
Valid	very Likely	23	33.8%	

	Likely	33	48.5%	
	Neutral	3	4.4%	
	Unlikely	3	4.4%	
	Very Unlikely	6	8.8%	
48.5% = likely				

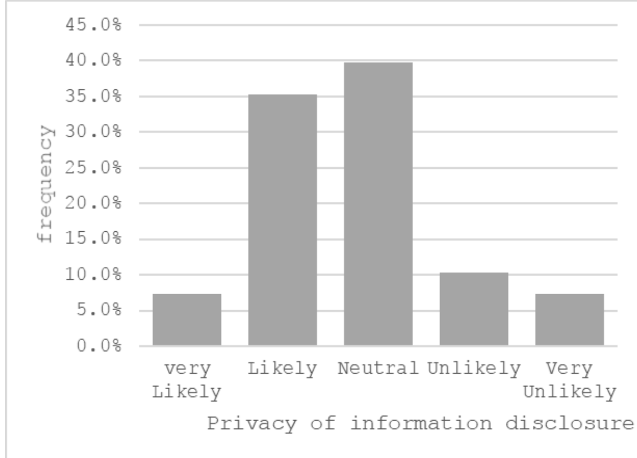
Competent personnel				
		Frequency	Percent	
Valid	very Likely	14	20.6%	
	Likely	15	22.1%	
	Neutral	25	36.8%	
	Unlikely	11	16.2%	
	Very Unlikely	3	4.4%	
36.8% = neutral				

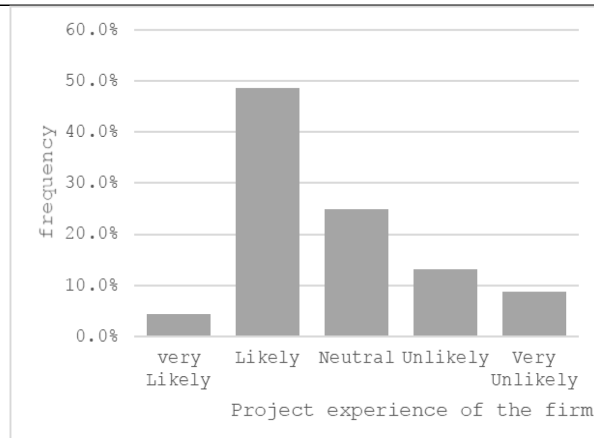
Technical capabilities				
		Frequency	Percent	
Valid	very Likely	19	27.9%	
	Likely	30	44.1%	

	Neutral	7	10.3%	
	Unlikely	5	7.4%	
	Very Unlikely	7	10.3%	
44.1% = likely				

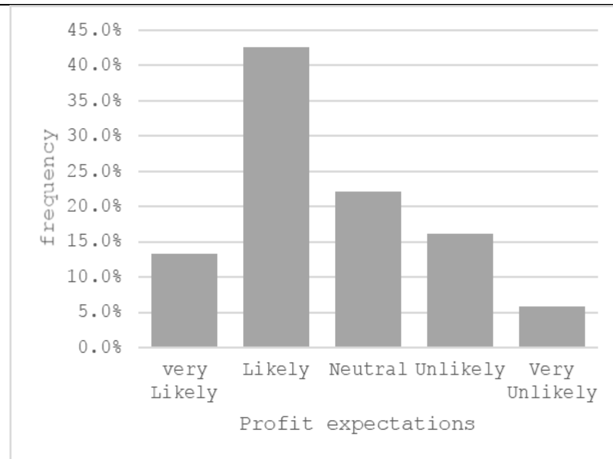
Availability of adequate Financial resources				
		Frequency	Percent	
Valid	very Likely	16	23.5%	
	Likely	26	38.2%	
	Neutral	23	33.8%	
	Unlikely	3	4.4%	
	Very Unlikely	0	0.0%	
38.2% = likely				

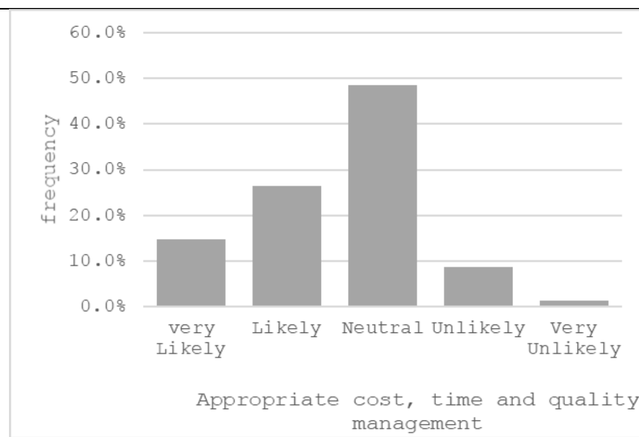
Privacy of information disclosure				
		Frequency	Percent	
Valid	very Likely	5	7.4%	
	Likely	24	35.3%	

	Neutral	27	39.7%	
	Unlikely	7	10.3%	
	Very Unlikely	5	7.4%	
39.7% = neutral				

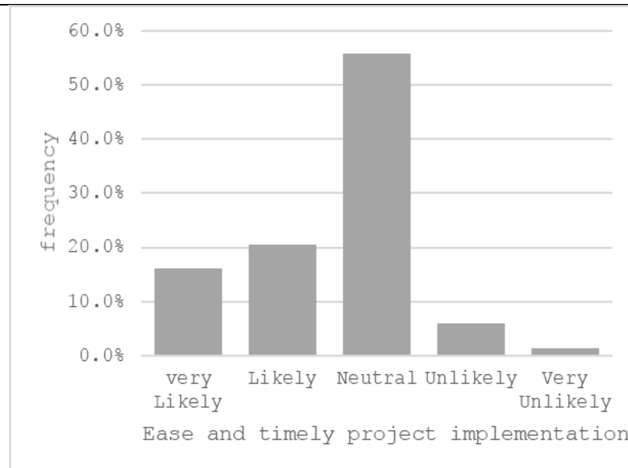
Project experience of the firm				
		Frequency	Percent	
Valid	very Likely	3	4.4%	
	Likely	33	48.5%	
	Neutral	17	25.0%	
	Unlikely	9	13.2%	
	Very Unlikely	6	8.8%	
48.5% = likely				

Profit expectations				
		Frequency	Percent	
Valid	very Likely	9	13.2%	
	Likely	29	42.6%	

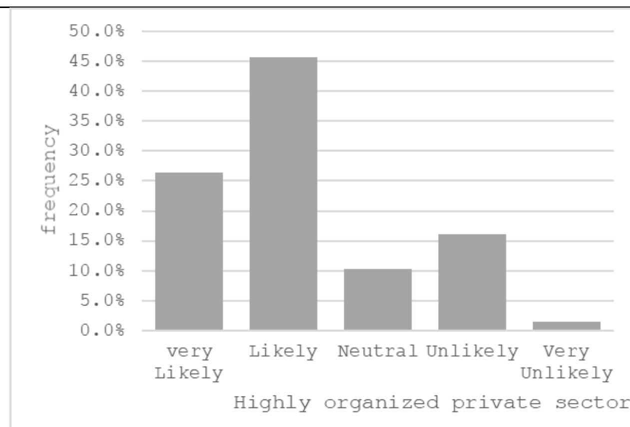
	Neutral	15	22.1%	
	Unlikely	11	16.2%	
	Very Unlikely	4	5.9%	
42.6% = likely				

Appropriate cost, time and quality management				
		Frequency	Percent	
Valid	very Likely	10	14.7%	
	Likely	18	26.5%	
	Neutral	33	48.5%	
	Unlikely	6	8.8%	
	Very Unlikely	1	1.5%	
48.5% = neutral				

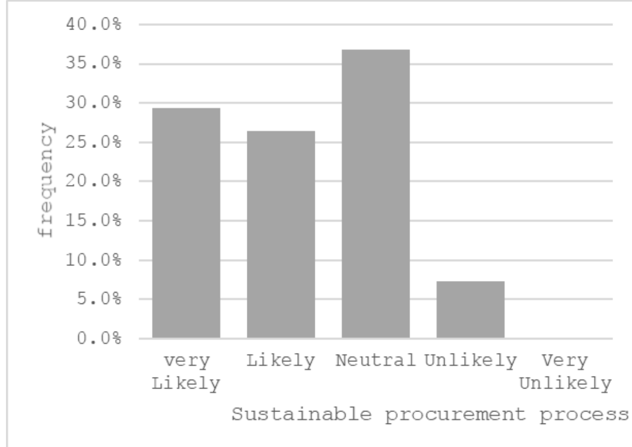
Ease and timely project implementation			
		Frequency	Percent
Valid	very Likely	11	16.2%
	Likely	14	20.6%
	Neutral	38	55.9%
	Unlikely	4	5.9%
	Very Unlikely	1	1.5%
55.9% = neutral			



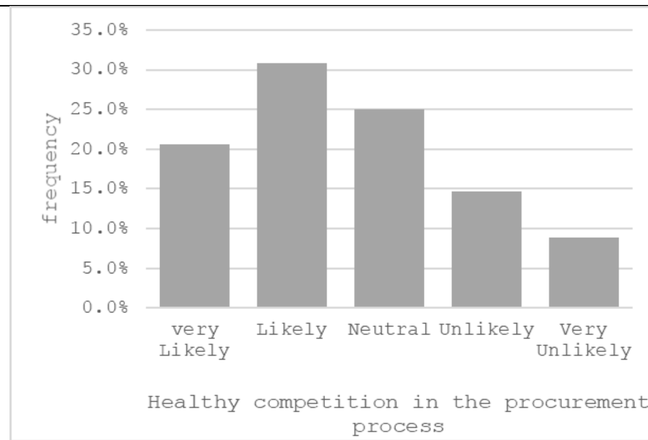
Highly organized private sector			
		Frequency	Percent
Valid	very Likely	18	26.5%
	Likely	31	45.6%
	Neutral	7	10.3%
	Unlikely	11	16.2%
	Very Unlikely	1	1.5%
45.6% = likely			



Sustainable procurement process			
		Frequency	Percent
Valid	very Likely	20	29.4%
	Likely	18	26.5%

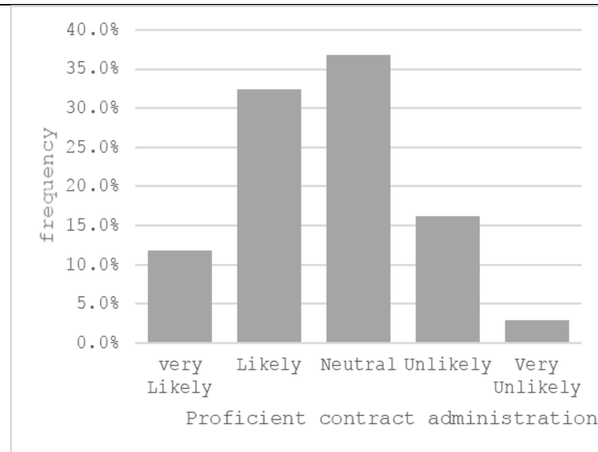
	Neutral	25	36.8%	
	Unlikely	5	7.4%	
	Very Unlikely	0	0.0%	
36.8% = neutral				

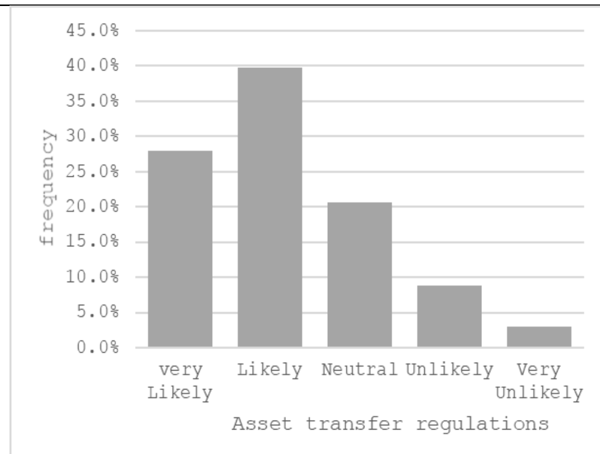
Healthy competition in the procurement process

		Frequency	Percent	
Valid	very Likely	14	20.6%	
	Likely	21	30.9%	
	Neutral	17	25.0%	
	Unlikely	10	14.7%	
	Very Unlikely	6	8.8%	
30.9% = likely				

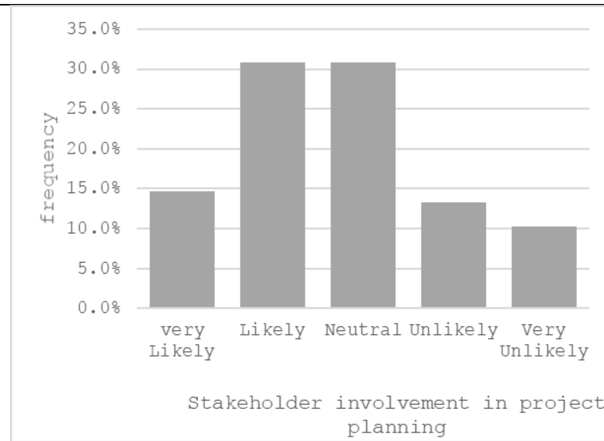
Proficient contract administration

		Frequency	Percent	
Valid	very Likely	8	11.8%	

	Likely	22	32.4%	
	Neutral	25	36.8%	
	Unlikely	11	16.2%	
	Very Unlikely	2	2.9%	
36.8% = neutral				

Asset transfer regulations				
		Frequency	Percent	
Valid	very Likely	19	27.9%	
	Likely	27	39.7%	
	Neutral	14	20.6%	
	Unlikely	6	8.8%	
	Very Unlikely	2	2.9%	
39.7% = likely				

Stakeholder involvement in project planning				
		Frequency	Percent	
Valid	very Likely	10	14.7%	
	Likely	21	30.9%	

	Neutral	21	30.9%	
	Unlikely	9	13.2%	
	Very Unlikely	7	10.3%	
30.9% = likely = neutral				

CHAPTER 5-DISCUSSION AND CONCLUSION

The public industry manages the decision-making activities, which has an impact on project implementation. It also has an impact on the political and social objectives of the nation; on the other hand, the private sector contributes to this by being innovative, knowledge, and project funding. The idea behind joining or combining public and private sectors is to promote efficiency. It is worth noting that the idea has attracted attention across the world (Yang *et al.,* 2017). Moreover, all the project implemented under these combinations are successful, meaning that they were implemented on time, resources effectively used, and meeting its intended purpose (Rouhani *et al*., 2016). Countries have noted that they are not able to develop infrastructure at an anticipated rate because of demand; as such, they have turned to private sector funding.

Currently, there is a political momentum on the adoption of PPPs and the engagement that has shown some significant changes. Nevertheless, the public-private partnership consists of vital opportunities and many risks in the project implementation. Most scholars have found out that joining the public decision makers has a significant impact on project implementation. The other benefit is that it provides market value, the knowledge that is important to take of it that help in outcompeting the rivals (Yang *et al.,* 2017). Sometimes PPPs projects fail to meet its set goals; it can fail in the project life cycle for many reasons.

The public industry techniques in avoiding failure should be designed to show some unique or outstanding project situation. It is not a guarantee that projects implemented using PPPs will succeed (Rosenbloom, 2016). The project implementation to succeed there is a need for the team to use the management skills, tools that will make use of the inputs to come up with the output (Rouhani *et al*., 2016). Most private companies have the required skill that affects the project implementation, as such, joining it with the public increases its chances of project success.

Studies have been carried out on engaging or involving the private sector in public project affects the success of public projects. The public, the private partnership, has been studied based on different results context. But most of these studies have focused on the negative impact of public, private partnership and how it should be organized to be successful. The conception of whether public-private is the most effective techniques in service delivery has comprehensively been analyzed (Kumaraswamy *et al.*, 2016). Studies emphasis is on the managerial and organization point of view or putting the state and private at the focal point. They have also rooted in the field of the political system, management as well as project management (Kumaraswamy *et al.*, 2016).

The current study will give insight into the formation and effect of private-public partnership effect on project execution. It will also contribute to the sector on market entry techniques and giving reasons as to why most governments have preferred the method to the traditional one. Doing this, the researcher hopes to contribute to the understanding of how management skills and expertise affects PPPs then project implementation.

The funding option from the private industry can be directed to providing public services through partnerships. Most countries have increasingly turned to PPPs to manage their infrastructure shortfall. The adoption of public-private promotes the private initiative in addition to its benefits ranging from involving the private sector in planning, designing, operation, and maintenance. Various PPPs have been carried out in developing infrastructure with different results and issues.

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