STAKEHOLDER MANAGEMENT IN THE ALLEVIATION OF LEGAL AND REGULATORY DISPUTES IN PUBLIC-PRIVATE PARTNERSHIP PROJECTS IN SOUTH AFRICA

ABSTRACT

Purpose: This study introduces the use of critical success factors (CSFs) of stakeholder management as a possible solution to reduce disputes experienced as a result of legal and regulatory issues in public-private partnership (PPP) projects.

Methodology: The epistemological positioning of this paper adopted positivism and deductive reasoning to investigate the dispute phenomena on PPP projects. A survey strategy was adopted using a structured questionnaire and closed ended Likert scales to collate primary data. Questionnaires were distributed to South African construction professionals using both purposive and snowballing non-probability sampling techniques. Data was analysed using summary statistical analysis of the CSFs identified from literature.

Findings: The study revealed that among the 19 critical success factors (CSFs) identified, five factors were highlighted that could contribute to the alleviation of disputes between stakeholders in PPP projects viz: 1) adequate project planning and control; 2) effective leadership; 3) appropriate strategies for the management of stakeholders; 4) confirmation of clear goals and objectives of the project; and 5) effective communication.

Originality: The strength of the study lies in the evaluation and use of CSFs of stakeholder management as a possible solution to minimise or even avoid disputes as a result of legal and regulatory issues in PPP projects. By integrating the CSFs, the legal and contractual misconceptions of the PPP initiative are clarified. Such work represents a novel contribution to procurement practice in South Africa and may be other countries internationally who are grappling with similar issues.

KEYWORDS

Public-private partnership projects, stakeholder management, critical success factors, legal and regulatory issues, construction project team

INTRODUCTION

The need to deliver sustainable infrastructure assets for the socio-economic well-being of the public in developing countries is increasing (Debrah *et al.,* 2020; Owusu-Manu *et al.,* 2020a). Alm (2011) contends that poor provision and financing of transport, water and sanitation, power supplies and communication facilities economically deprive

developing countries from competing on a global scale. As a viable solution to a notable dearth of affordable finance to augment existing, and build new infrastructure assets (cf. Owusu-Manu et al., 2018; Donkor-Hyiaman et al., 2019; Owusu-Manu et al., 2020b, 2020c), state agencies have resorted to collaborating with private firms (Mouraviev and Kakabadse, 2015; Wang, 2015). Klijn (2010) and Ullah *et al.* (2016) affirm that public-private partnerships (PPPs) are long-term collaborations between government agencies and private firms. Albalate and Bel (2009) and Kenton (2019) add that private sector firms in PPPs are considered for financing, building and operating infrastructure assets at their own expense in return for a fee from the operations of the built asset.

Pongsiri (2002) outlines that the legal and regulatory frameworks are paramount in the determination of: clear guidelines for financial performance; responsibilities of the implementation staff; provision of adequate means to protect the interests of the private firms; and ultimately for the success delivery of infrastructure assets through PPPs. However, there are legal and regulatory issues encountered that delay projects' predetermined goals and objectives. According to Lundqvist (1988), these include regulations and contractual safeguards that have the ability to affect the competitive relevance of the private sector in the construction an civil engineering market, which leads to detrimental consequences for private firms (Savas, 2002). The challenges identified within the existing legal and regulatory frameworks are that they are unlimited in scope and also guilty of promoting micro-management and unclear operations (Pongsiri, 2002); whereas the ideal expectation of the frameworks is that they remain limited, fair, transparent and consistent.

Despite the amount of research on stakeholder management (Cleland, 1999; Newcombe, 2003; El-Gohary et al., 2006; Olander and Landin, 2008; Chinyio and Akintoye, 2008, Chinyio and Olomolaiye, 2010; Nwachukwu et al., 2017), little theoretical and empirical attention has been paid to the use of critical success factors (CSFs) of stakeholder management as a possible solution to alleviate legal and regulatory disputes experienced in the practice and implementation of PPP projects. Therefore, to address the articulated challenges experienced in PPPs, this current study provides analysis of the likelihood of adopting CSFs for stakeholder management as a feasible solution towards the alleviation of legal and regulatory disputes between

stakeholders in the delivery of projects through PPPs. In realising this aim, associated objectives are to: engender further incisive debate within academia and practice on the palpable benefits of CRFs in the dispute prevention; and ultimately contribute to the efficient and effective delivery of infrastructure projects in South Africa and other nations with similar issues prohibiting socio-economic development.

CRITICAL SUCCESS FACTORS AND REGULATIONS

Numerous studies (Cleland, 1999; Newcombe, 2003; El-Gohary *et al.,* 2006; Olander and Landin, 2008; Chinyio and Akintoye, 2008; Chinyio and Olomolaiye, 2010) have been conducted on CSFs of stakeholder management in construction and civil engineering projects. However, studies that explore the CSFs of stakeholder management as a possible solution to alleviate causes of disputes in PPPs are limited within the prevailing body of knowledge. Scant insight extends to a study by Mok *et al.* (2017) which fell short in expounding on issues relating to legal and contractual obligations of the involved stakeholders by selectively focusing and generalising stakeholder-related issues and their interrelationships only during the design-and-construction stage. To fully understand the dispute prevention or mitigation process, a clear understanding of: the role of the public sector in the PPP; legal and regulatory issues; and a clearer understanding of CSFs must first be acquired.

Understanding the role of the public sector in public-private partnerships (PPPs)

PPPs are collaborations between public and private firms preferred for the successful delivery of public assets. Babatunde *et al.* (2016) and Jayasuriya *et al.* (2019) agree that PPPs include organizations from both the public and private sector collectively working together to share responsibilities by prioritizing the strengths of each partner for the benefit of improving the delivery of public assets. Additionally, Hoppe *et al.* (2013) and Kavishe *et al.* (2019) connotes that in terms of cost and affordability, PPPs are economically preferred compared to traditional procurement because they ensure that value for money is attained prior to the completion of the built facilities and lastly ensure the provision of affordable housing outcomes. Akintoye and Liyanage (2011) define PPPs as a strategy employed to accelerate the delivery of infrastructure assets, economic growth and development, which will in return produce quality service delivery and good governance (Ismail and Haris, 2014).

Private firms in PPPs are often considered because they bring about value for money through the provision of private management skills used for planning, construction and delivery of public infrastructure assets (Li *et al.,* 2005; Cheung *et al.,* 2009). For a successful partnership there is also a requirement of fulfilling CSFs, such as the political will from the public sector to make decisions (Jayasuriya *et al.,* 2019) that will stimulate private participation. Consequently, whether it is locally, regionally, provincially or nationally, there needs to be government buy-in. Thus, the role of government (especially as a facilitator and administrator) in PPP projects cannot be regarded as inconsequential. More importantly the success of PPPs is also dependent on the adherence of the following sustainability factors influencing PPPs viz: sustainability assessments conducted from the feasibility stage; and sustainability factors considered during the evaluation of project viability (Kavishe *et al.,* 2019).

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Legal and regulatory issues in public-private partnership construction projects

Several studies (Loosemore, 2006; Bourne and Walker, 2006; Rowlinson and Cheung, 2008) have articulated challenges affecting stakeholder management as the reason behind the failure of construction projects. These challenges include but are not limited to: lack of engagement amongst stakeholders; ineffective use of existing communication channels; and unclear and incoherent objectives provisioned by stakeholders (Jayasuriya *et al.*, 2019). Mok *et al.* (2017) revealed that amongst issues pertaining to stakeholder consultation, client related issues were more evident vis-à-vis those from other stakeholders. However, this present study focuses more on legal and regulatory issues leading to disputes in PPP projects, and how the use of CSFs of stakeholder management can be used to alleviate the identifiable disputes.

The practice and implementation of PPPs involve a complex use of contracts and other necessary processes that ensure its success (Pongsiri, 2002). To guarantee the effective use of the contracts and processes, legal frameworks that facilitate infrastructure projects development are required (Institute for Public-Private Partnerships, 2000). Additionally, the importance of having an administrative framework that expedites the implementation of PPP projects cannot be over-emphasized. In 2015, to guide the practice and implementation of any PPP project, Uganda established and implemented a Public-Private Partnership Act (Mwesigwa *et al.,* 2019). However, despite the

establishment and implementation of frameworks there are still legal issues that arise from the practice and implementation of PPP projects. Grimsey and Lewis (2004) and Mouraviev *et al.* (2012) indicate that these include: enforcement of contracts; private sector interests; security arrangements; taxes; remittance of foreign exchange and profits; and bureaucracy in attaining permits and consents. Mwesigwa *et al.* (2019) maintain that the legal issues of PPP projects emerge from the now adopted legal and regulatory framework (established by government) that guides the facilitation of infrastructure projects delivered through PPPs and contribute to the ongoing disputes encountered in the projects.

Understanding critical success factors of stakeholder management for PPPs

Yang *et al.* (2009), Bakar *et al.* (2009), Nauman and Piracha (2016) and Mok *et al.,* (2015) highlighted the following CSFs of stakeholder management as imperative to the successful delivery of construction projects in developed countries viz:

- Formulating a clear statement of project missions;
- Identifying stakeholders properly;
- Understanding the area of stakeholders' interests;
- Exploring stakeholders' needs and constraints to projects;
- Accurately predicting the influence of stakeholders;
- Analyzing conflicts and coalitions among stakeholders;
- Keeping and promoting good relationships;
- Formulating appropriate strategies to manage stakeholders;
- Predicting stakeholders' reactions towards the implementation of strategies;
- Analyzing the change of stakeholders' influence and relationships during the project process; and
- Communicating with and engaging stakeholders appropriately and frequently.

Understanding and prioritizing stakeholders' interests, their needs and constraints

In complex infrastructure projects such as PPP projects (which involve multiple corporations from different sectors), it is difficult to ensure that the interests, needs and constraints of each party are considered. However, with effective communication channels in place, it is possible to identify each stakeholder's interests such as integrity

towards financial reporting, financial returns and product safety (Freeman *et al.,* 2007). Prioritizing the interests of stakeholders includes exploring stakeholders' needs and constraints. This assists with assessing the challenges and finding possible solutions to the challenges encountered (Love *et al.,* 2004; Wood and Logsdon, 2000). Moreover, when the issues have been identified, whether these are issues facing individuals or issues experienced as a group, it is possible to then carry out analyses and provide solutions to stakeholders' requirements (Yang *et al.,* 2009). This can only be carried achieved through effective communication.

Prioritizing and promoting trust between stakeholders

Key delivery of construction projects and meeting stakeholders' expectations are the result of successful and stable relationships between stakeholders (Hartmann 2002), and this requires trust. Even though trust may appear as a soft skill, its importance and relevance to the success of a progressive and reliable stakeholder management team is significant. Karlsen *et al.* (2008) and Gudiene *et al.* (2013) clearly stated that in order to pursue good relations and understanding in a team, trust needs to take precedence. Rousseau *et al.* (1998) discussed the prominence of pursuing good relations in a partnership. Their study (*ibid*) revealed that trust enables cooperative behaviour and mitigates the causes of conflicts that may lead to arbitration. In fact, trust endorses effective responses to misunderstandings that may emerge during partnership proceedings. Mohr and Spekman (1994) concur that trust realized between stakeholders can indeed improve adaptability, encourage a united problem-solving space and guarantee better outcomes of the PPP project. The findings of Mwesigwa *et al.* (2019) stressed trust as an insignificant attribute of stakeholder management but a necessary component nonetheless, further highlighting that trust is built up over a long period; thus, it will be unwise to prioritize it.

Affirming commitment among stakeholders

Commitment in stakeholder management is defined as the stakeholders' ability in a partnership to serve the project aims with absolute loyalty (Mwesigwa *et al.,* 2019), while Meyer and Allen (1997) indicated that stakeholders' sense of responsibility to remain in the project, stakeholders' emotional attachment and stakeholders' recognition of the benefits of the project in the long run are the three forms of commitment that

preserve stakeholders' committment to a project. According to Tellefsen and Thomas (2005), commitment is one of the qualities required to fulfil a long-term relationship in PPPs, ensuring that goals and objectives of the project are met. Commitment cannot be stressed enough as an important attribute in stakeholder management. Mwesigwa *et al.* (2019) however, states that commitment along with trust is an insignificant attribute to stakeholder management for PPP projects in Uganda. Nevertheless, it is a necessary attribute to have. The literature reveals that trust and commitment are attributes that can be realized between stakeholders working together in the PPP projects over the contract period.

3. RESEARCH METHODOLOGY

The adopted epistemology was couched in a positivist philosophical stance (cf. Pärn *et al.,* 2018; Edwards *et al.,* 2020a; Hou *et al.,* 2020) and deductive reasoning (cf. Ghansah *et al.,* 2020) to investigate the dispute phenomena on PPP projects. From a methods perspective, a survey strategy was adopted (cf. Owusu-Manu *et al.,* 2018; Edwards *et al.,* 2020b) using approach whereby a structured questionnaire and closed ended Likert scales to collate primary data (cf. Aghimien *et al.,* 2020). Questionnaires were used because they represent an economical means of collect field data and using such to generalize results in order to provide coherent recommendations (Muredzi, 2019). The questionnaire had two sections: Section A collected demographic information from respondents to ensure that they could effectively contribute to this study (by meeting minimum entry criteria). Section B dealt with the likelihood of using CSFs of stakeholder management to alleviate disputes experienced as a result of legal and regulatory issues between stakeholders in the practice and implementation of PPP projects. To rate the likelihood, a five-point Likert scale was adopted, with 5 being 'very likely, 4 being 'likely', 3 being 'undecided', 2 being 'unlikely' and 1 being 'very unlikely'.

Sampling and distribution frame

Questionnaires were was distributed to trained and experienced South African construction professionals using both purposive and snowballing non-probability sampling techniques (cf. Owusu-Manu et al., 2020d). Knowledge and experience of managing construction and/or civil engineering project was set as the minimum entry

criteria to ensure that only valid and insightful comments were collated. Consequently, to achieve this objective, construction professionals affiliated to prominent institutions were targeted – key professions were quantity surveyors, construction project managers, project managers, engineers, programme implementation managers, town planners, site managers and health, safety and environment (HSE) officers. Initially, 12 public and private institutions located in the Gauteng Province, South Africa were nominated. The number further increased owing to a snowball sampling technique. The research findings of the study may not be generalised for the entire Gauteng Province, South Africa as this study only featured a few areas within the province.

Sedgwick (2013) asserts that a snowball sampling technique initially identifies potential respondents of the study who will eventually recruit other participants. The respondents that were identified in the initial 12 institutions further recruited other participants, both from within their institutions and from outside. As a non-probability technique, snowball sampling encourages the participation of respondents who are not comfortable with directly dealing with the researcher (it provides a sense of anonymity) (Bhat, 2019) or sampling respondents who are out of reach. The initial sample size of an unknown population was obtained using equation 1, and this amounted to 96 respondents.

$$n = \frac{p\,(1-p)\mathrm{z}^2}{E_2} \quad \text{.....Equation 1}$$

n = sample size

P = percentage occurrence of a state/condition (estimation of the variance/heterogeneity of the population); E = percentage of maximum error/ margin of error (level of precision); and Z = value corresponding to the level of confidence

To calculate the sample size of an unknown population 95% (1.96) of the level of confidence (Z) was selected. Given the attributes of the adopted sampling techniques, this was the percentage to which the characteristics of the population can be generally estimated by the sample survey. This simply suggests that 95 out 100 samples obtained will be a definite reflection of the population (Taherdoost, 2017). In case of miscalculations or change of circumstances ±10% was allocated for the margin of error. Olatunji *et al.* (2016) in a study that assessed factors affecting the performance of

undergraduate students (as well as in construction and other related disciplines) used ±10% as the margin of error as an acceptable figure. Bartlett *et al.* (2001) point out that since the calculation of the percentage of occurrence (P) can be calculated prior to the survey it is acceptable to take 50% as an estimate. This will maximize the variance and produce a maximum sample size. Thus, the sample size computed from equation 1 amounted to 96, however given the application of the snowballing technique the size slightly increased. The increase or limited distribution of questionnaires in snowballing is attributed to the willingness of the identified respondents to recruit other participants.

Pilot and main survey

A pilot study was undertaken before questionnaires were distributed to confirm face validity. The questionnaire was sent to three random doctoral candidates and three construction professionals to verify and validate the research instrument's clarity and completeness – all pilot study participants had experience in questionnaire design and development. Following minor suggestions for improvement, a revised questionnaire was then approved and deemed ready for distribution. Subsequent to data collection Cronbach's alpha test was carried out to determine the reliability of the research instrument. The alpha value generated was 0.963. According to Moser and Kalton (1999) and Pallant (2001), a Cronbach's alpha value that is over 0.60 renders the research instrument in question reliable.

As a result of the snowball sampling technique it was difficult to determine the exact number of questionnaires distributed in total. However, from an unknown number of questionnaires distributed, 62 participants responded to the invitations sent via Google Forms, while 23 physical copies of the 36 distributed via surface mail were returned. Given the study's objective to ascertain the likelihood of using CSF of stakeholder management and observed varying degrees of understanding the subject under investigation, as well as the resources at the disposal of the researcher the number of the returned questionnaires was deemed adequate. Not more than 60% of the participants have not participated in PPP projects, indicating that more professionals in the construction industry have not taken part in PPP projects whilst those that have participated in at least five PPP projects did not surpass 10% mark. Taherdoost (2016) postulates that whilst the proportion of the population is not entirely the focal point

during sampling the complexities of the population in the selected sample must not be neglected.

Subsequent screening of the 85 questionnaires returned revealed that only 62 were eligible for further analysis. Data analysis was conducted using Statistical Packages of Social Sciences (SPSS) version 26.. Frequencies and percentages were used to analyse the respondents' background information. To determine the normality of the received data Shapiro-Wilk test was conducted and to assess the likelihood of whether the identified CSFs are key measures for alleviating legal and regulatory disputes, the use of mean item scores (MISs), standard deviation (SD) and ranks (Rs) were adopted.

FINDINGS

The analysis of demographic profile reveals that quantity surveyors dominated the study with 62.9% (frequency (f) = 39) while construction projects managers amounted to only 17.7% (f = 11). From the number of respondents who took part in the study 41.9% (f = 26) of them were registered with various councils, 17.7% (f = 11) of the respondents were registered with the South African Council of Quantity Surveying Profession (SACQSP) while 14.5% (f = 9) were registered with the South African Council Construction Project Management Profession (SACPCMP). The respondents were then asked to indicate which organization they belonged to. A total of 38.7% (f = 24) indicated that they operate under contractors, while 32.3% (f = 20) indicated that they operate under consultants. When asked to indicate whether they have participated in any PPP projects 40.3% (f = 25) indicated that they had. From the batch that responded positively, 32.2% (f = 20) of them had undertaken one or two PPP projects. According to the results, 29% (f = 18) of those projects were undertaken in the Gauteng Province.

Critical success factors on stakeholder management

The study further determined the likelihood of using the CSFs of stakeholder management to alleviate disputes experienced as a result of legal and regulatory issues between stakeholders in the practice and implementation of PPPs. MIS was used in this regard, but beforehand data normality was determined using the Shapiro-Wilk Test which is suitable for any sample size > 2,000 (Ghasemi and Zahediask, 2012). This was to determine whether parametric or non-parametric tests would be suitable for this

particular study. From Table 1 below it is clear that the significance value of all 19 CSFs identified in the literature reviewed is less than the required p = 0.05 which renders this data non-parametric.

<Insert Table 1 about here>

From Table 1 it is clear that the respondents agree that all the mentioned CSFs of stakeholder management are essential for alleviating disputes between stakeholders as a result of legal and regulatory issues. However, according to the ranking conducted: 'ensuring adequate project planning and control' (MIS = 4.24; SD = 0.88); 'providing effective leadership' (MIS = 4.23; SD = 0.85); 'formulating appropriate strategies for the management of stakeholders' (MIS = 4.23; SD = 0.98); and 'confirming clear goals and objectives of the project' (MIS = 4.21; SD = 0.97) took precedence over other factors with a ranking of 1, 2, 3 and 4 respectively. 'Guaranteeing competitive and transparent procurement approaches' (MIS = 4.00; SD=0.99); 'understanding stakeholders' interest areas' (MIS = 4.00; SD = 1.00); and 'promoting tested legal and regulatory frameworks' (MIS = 4.00; SD = 1.0) were ranked 11, 12 and 13 respectively. 'Certifying public/community support' (MIS = 3.85; SD = 1.00); 'analysing the change of stakeholders' influence and relationships' (MIS = 3.81; SD = 1.0); and 'predicting stakeholders' reactions for implementing strategies' (MIS = 3.81; SD = 1.00) were the last three CSFs of stakeholder management required to alleviate disputes experienced as a result of legal and regulatory issues in PPP projects according to the rankings.

DISCUSSION OF FINDINGS

From literature reviewed, it was evident that issues pertaining to legal and regulatory matters of PPPs indeed contribute to conflicts among stakeholders, and that conditions and regulations in many developing countries have not been clearly defined to alleviate disputes incurred. (Kavishe *et al.,* 2019). Ping Ho *et al*. (2015) indicates that there is a need to create favourable conditions for PPPs projects to flourish in terms of improved stakeholder management – which in itself requires good governance, effective pricing strategies and clear transaction costs. The literature revealed that enforcement of contracts, bureaucracy regarding attaining permits and consent, and remittance of foreign exchange and profits (Mouraviev *et al.,* 2012; Mwesigwa *et al.,* 2019) are

amongst the legal and regulatory issues leading to disputes among stakeholders. Consequently, the study envisaged to improve the way the stakeholders handle issues related to legal and regulatory matters by introducing the CSFs of stakeholder management.

Using the mean item score in Table 1, it is evident that all the 19 acknowledged CSFs of stakeholder management are likely to be used to alleviate disputes among stakeholders as a result of legal and regulatory issues. However, in determining the importance of the CSFs using the ranking, it is also evident that 'ensuring adequate project planning and control', 'providing effective leadership' and 'formulating appropriate strategies for the management of the projects team' were also essential in alleviating disputes as a result of legal and regulatory issues in the practice and implementation of PPPs. Hajdu *et al.* (2013) concurred with the findings and indicated that planning and controlling project activities using Gantt charts for example, improves the working relationship within the project team, thus providing clarity to any bureaucratic glitches encountered in PPP arrangements. This also involves the development of network planning techniques. Aigbavboa and Thwala (2014) further concurred with this present study's results on the fact that effective leadership should be prioritized in PPP projects, especially where personalities collide due to misunderstandings regarding the legal and contractual obligations of the PPP frameworks (Karlsen, 2002; Schwager, 2004). In massive and ambiguous projects such as the PPPs, it is more than likely that personalities will collide. El-Sawalhi and Hammad (2015) made emphasis on the importance of the project manager's competencies as a key factor affecting management support of stakeholders One recommended strategy to augment understanding and improve relations between stakeholders is the use and emergence of 'response strategies' between stakeholders (Sivonen, 2009) – that is, identifying what stakeholders will do to mitigate project risks identified.

Confirming clear project goals and objectives, and ensuring effective communication were within the top five CSFs preferred for the alleviation of disputes experienced. Aigbavboa and Thwala (2014) further encouraged the prioritization of clearly defined project objectives and the use of integrated procurement processes which concurs with the findings of this study. The results from El-Sawalhi and Hammad (2015) clearly

revealed that setting common goals and objectives for construction projects takes precedence and influences information input more than identifying stakeholders and exploring the needs and expectations of stakeholders. The importance of defining goals and objectives in complex projects such as the PPPs is of paramount importance (England and Macdonald, 2015) to their success. This involves determining the expectations and roles of each stakeholder in the project (Winch, 2000). To ensure that each member of the project team understands the stipulated roles and objectives of the project there needs to be effective communication. Highlighted as a critical factor in the alleviation of legal and regulatory disputes (Olander and Landin, 2008; Walker *et al.,* 2008), effective communication produces, nurtures and manages relationships and encourages comprehension of complex matters relating to the legal and regulatory frameworks of PPPs. El-Sawalhi and Hammad (2015) and Mwesigwa *et al.* (2019), as also observed in this present study, add that communication is the most preferred factor affecting the decision making of alleviating legal and regulatory disputes in the practice and implementation of PPP projects even more than trust, commitment or engagement.

However, Karlsen (2008) and Nauma and Piracha (2016) disagree with the findings of this present study and maintain that communication along with trust, commitment and engagement are significant in resolving and improving relationships within the project team. Tellefsen and Thomas (2005) also argue that commitment is key in sustaining long-term relationships (contracts) such as the ones experienced in PPPs. As this present study shows in Table 1, trust, commitment and engagement are likely to be used for alleviating disputes. However, in terms of ranking, they were not included in the top five of the essential CSFs that are likely to alleviate disputes as result of legal and regulatory issues between stakeholders in PPP projects. Interestingly, Abdullah *et al.* (2010) evidently favoured the prioritization of engagement over trust and commitment. The issue behind the dubious prioritization of trust and commitment is that both attributes are characteristics one can inherently reveal over a long period of time of working together. To try and prioritize and enforce them in the early stages of the partnerships is premature. However, Karlsen *et al.* (2008) and Gudiene *et al.* (2013) contend that in order to pursue good relations and understanding in a team, trust needs to take precedence. El-Sawalhi and Hammad (2015) further advocated for the understanding of stakeholder's interests as a CSF in influencing stakeholder assessment

along with analysing conflicts among stakeholders - however, the results of this present study was not in agreement, revealing that though essential understanding of stakeholder's interests and analysing conflicts among stakeholders were not prioritised ranking twelve and sixteen respectively.

LIMITATIONS AND FUTURE WORK

There are several limitations of this study that should be highlighted as these provide fertile grounds for future study. First and foremost, the geographical distribution of the work is limited to a specific area of South Africa, and although literature was used to deductively analyse CSFs, a wider population of construction and civil engineering professionals across several developing countries could yield stronger scientific inference for a wider population. Second, the study is premised upon the presupposition that opinion is reality and moreover, that researchers' axiology and bias may be introduced into the data collection instrument (inherent weaknesses of questionnaire surveys). Whilst questionnaires are certainly less biased than interviews (given their remote application), future work is required to conduct a longitudinal study to measure the actual success or otherwise of factors identified in this study. Techniques such as fuzzy synthetic evaluation or structured equation modelling may be useful in this respect. Third, and linked to the previous limitation the complex interconnectivity or CSFs and the actors (stakeholders) involved in a PPP project implementation is not apparent within this two-dimensional and seminal work. So this work provides a important cornerstone upon which other follow-on work will transpire but it clearly does not provide a panacea to the problem reported upon. Finally, aspects of the digital digital transformation underway within contemporary construction and civil engineering management did not feature prominently in this work and so concepts such as Industry 4.0 (cf. Newman *et al.,* 2020; Ghosh *et al.,* 2020) were conspicuous by their absence

CONCLUSION AND RECOMMENDATIONS

The study's objective was to determine the likelihood of using CSFs of stakeholder management to alleviate disputes experienced as a result of legal and regulatory issues (such as poor administration or frameworks) that affect the implementation of PPP projects. The study however, fell short in expounding on the importance and determinant of stakeholder attitudes in PPP projects, which is a significant attribute to consider in stakeholder assessment. Stakeholder attitude identifies which stakeholders

are in support of the project and whom are not, as this may have a direct positive or negative impact on the proceedings of the project. Based on the study's findings it can be concluded that, amongst other strategies, there is a possible link in the alleviation of legal and regulatory disputes with the use of CSFs of stakeholder management. The findings reveal that all 19 CSFs of stakeholder management can be used as a solution to alleviate disputes caused by misunderstanding legal and regulatory matters. However, the most significant of the 19 were 'ensuring adequate project planning and control'; 'providing effective leadership'; 'formulating appropriate strategies for the management of stakeholders'; 'confirming goals and objectives of the project'; and 'ensuring effective communication'.

Based on the study's findings it is recommended that (given a host country's conditions and regulations and, the magnitude and complexity of the PPP project) it is essential to firstly prioritize the definition and clarity of legal and contractual obligations of the PPP Acts and frameworks. For sustainability assessments this needs to be done from the project's feasibility stage. To ensure that each participant is conscious of the unstable outcomes of the projects (such as uncertainties associated with long-term contracts and the initial complex financing arrangements agreed upon), it is imperative to establish channels and feedback mechanisms that will inform the stakeholders of the ongoing status of the project. This also assures accountability, transparency, responsiveness and co-operation. Effective communication is also a recommended factor highlighted for its role of transmitting accurate, reliable and timely information between stakeholders. Whether it is a web-based means of digital communication or the integration of web-based and conventional methods, it is critical for the project manager to show leadership qualities in enforcing the innovated and improved means of transmitting information and knowledge. Additionally, since they are responsible for stakeholder management, project managers need to reveal leadership qualities in terms of ensuring adequate project planning and controlling of activities in the practice and implementation of PPP projects. In order to understand the programmes of the PPP initiative, the use and development of network planning techniques is imperative. A true understanding of the legal and regulatory frameworks of PPP in the practice and implementation of PPP projects can be achieved through the improved use of CSFs of stakeholder management as shown in this study.

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Table 1 - Critical success factors of stakeholder management

CSFs of Stakeholder Management	MIS	SD	R	Shapiro-Wilk Stati	Sig.
Ensuring adequate project planning and control	4.2	.8	1	.78	.00
Providing effective leadership	4.2	.8	2	.78	.00
Formulating appropriate strategies for the management of stakeholders	4.2	.9	3	.75	.00
Confirming clear goals and objectives of the project	4.2	.9	4	.75	.00
Ensuring effective communication	4.1	.9	5	.79	.00
Asserting good governance and consistent monitoring	4.1	1.	6	.79	.00
Preserving and promoting a good relationship by building trust	4.0	.9	7	.82	.00
Promoting commitment among stakeholders	4.0	.9	8	.83	.00
Providing clarity on roles of each stakeholder	4.0	1.	9	.82	.00
Engaging with stakeholders appropriately and frequently	4.0	1.	10	.83	.00
Guaranteeing competitive and transparent procurement approaches	4.0	.9	11	.84	.00
Understanding stakeholders' interest areas (needs and constraints)	4.0	1.	12	.82	.00
Promoting tested legal and regulatory frameworks	4.0	1.	13	.82	.00
Ensuring political support and stability	3.9	.9	14	.85	.00
Formulating a clear statement of project missions	3.9	1.	15	.84	.00
Analyzing and negotiating conflicts and coalitions	3.9	1.	16	.85	.00
Certifying public/community support	3.8	1.	17	.84	.00
Analysing the change of stakeholders' influence and relationships	3.8	1.	18	.84	.00
Predicting stakeholders' reactions for implementing strategies	3.7	.9	19	.86	.00

MIS=Mean item score; SD=Standard deviation; R=Ranking; Significance (p value)=Sig