

READINESS ASSESSMENT OF PUBLIC-PRIVATE PARTNERSHIPS IMPLEMENTATION WITHIN TANZANIAN HOUSING PROJECTS: CHALLENGES, STRATEGIES AND APPROACHES

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Despite the advocated benefits of housing project public-private partnerships (PPPs) such as alleviating the housing problems within the developing countries, the PPPs implementation has yielded mixed results with a number of developing countries facing project management challenges, including high termination rates of PPPs projects. This clearly demonstrates a need for undertaking more PPP empirical studies around the readiness assessment for implementing PPPs. To address the identified knowledge gaps, this study which is underpinned by the theoretical lenses of innovation diffusion theory, seeks to assess and investigate issues around the Tanzanian practitioner's readiness for PPP adoption. This research is empirically informed from semi-structured interviews with ten public and private sector practitioners within the Tanzania housing sector. The standard qualitative technique of content analysis was used for the data as collected. The findings show that the main 4 challenges, which are nested within the structural, relational and cognitive issues affecting the readiness process as: (i) lack of awareness and usage of PPPs framework models during the feasibility and subsequent implementation process; (ii) limited knowledge and skills required for PPPs practitioners exacerbated by poor capacity building; (iii) lack of engagement of experts during the viability and assessment process; and (iv) poor selection process of private partners. The main readiness strategies and approaches were structured around the following: (i) timing and preparation for adoption of strategies; (ii) undertaking of feasibility studies; (iii) usage of PPP frameworks; (iv) utilisation of experts in the assessment process; (v) enhanced capacity building; and (vi) selection of private partners. The results of this study foster a better understanding of the readiness assessment strategies and approaches for successfully implementing PPPs in housing projects. Subsequently, this could lead to improved performance outcomes within a sector and economy acknowledged as having earlier PPPs project terminations.

Keywords: housing projects, innovation diffusion, PPP, readiness assessment

INTRODUCTION

Tanzania like many other emerging economies and African countries continue to lack better public services such as housing, water, schools, power supply, transportation,

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waste management to mention a few. In order to improve the delivery of these services and facilitate creative and innovative approaches, Public Private Partnership (P3) is considered a practical alternative. In that context, Tanzanian Government adopted the P3 strategy to address the current situation (NHC, 2010; Kidata, 2013). However, despite the adoption of P3 in various sectors of the Tanzanian economy the prevailing problems remain unresolved. This obviously shows the presence of difficulties delaying the success of such services despite the Government's wish to collaborate with the private sector in addressing the infrastructural problem in the country (Kavishe and An, 2016). The situation has been worsening in urban regions where there is high population growth (NHC 2010). Consequently, the supply of housing in Tanzania is failing to keep up with the urban growth trend. Likewise, the 2012 census report showed that the Tanzanian population has tripled since 1967 and is continuing to increase. To mitigate the population growth and subsequent consequences of shortage of housing, the Tanzanian government like most in the emerging economies has been stimulated to adopt the popular P3 strategy as solution to delivering housing projects. However, P3s are more complex than traditional procurement process (World Bank 2016). As a result, P3s require a vast amount of preparation, training and experience as well as good monitoring and management skills. Moreover, from the review of studies undertaken it is very evident that there are limited studies undertaken in the Sub-Saharan Africa aimed at exploring the readiness assessment for P3s implementation. Thus, to narrow this knowledge gap, the study aims to assess and investigate issues around the Tanzanian practitioner's readiness for P3 adoption.

LITERATURE REVIEW

To facilitate the assessment of readiness for P3 and the exploration of issues around the readiness assessment of P3s within the Tanzanian housing projects context, the concepts of "readiness" and "innovation" needs to be defined. According to Bernerth (2004), readiness is defined as: "a condition of the mind when reproducing willingness or interest to altering the way an individual think or does things" (Bernerth, 2004, pg.39). Similarly, Al-Shareem *et al.*, (2013) and Al-Shareem *et al.*, (2015) described the readiness index as an indicator for measuring the extent of preparedness towards new knowledge. The study by Al-Shareem *et al.*, (2015, pg. 57) in citing Burns and Stalker (1961) and Vakola (2013) further defined readiness as: "Pertaining to the ability or capability of an organization to adopt or implement new ideas, processes or products". These two studies by Al-Shareem *et al.*, (2013) and Al-Shareem *et al.*, (2015) used two main dimensions: drivers (optimism and innovativeness) and barriers (discomfort and security). Optimism and innovativeness were taken to mean factors contributing towards the preparedness/readiness while discomfort and security means factors hindering the readiness. Al-Shareem *et al.*, (2015) demonstrated that there is an interrelationship between the external factors (market readiness, government policies and environmental uncertainty) and the degrees of readiness. Chan *et al.*, 2010 study have also confirmed these results by demonstrating the significance of these three aspects on P3.

The concept of "readiness" is also aligned and underpinned by the application of "Innovation Diffusion Theory". For example, the seminal study of Stock (1997) defined the concept of "Diffusion of Innovation" as the process by which something which is "new" moves from one area, person or location to another. Likewise, Mahajan and Peterson (1985 cited in Hosseini *et al.*, 2015, pg. 154) defined innovation as "Any idea, object, or practice that is perceived as new by members of

the social system". Using the above definitions, it is evident that P3s falls into this category as something "new" or still in infancy stage as highlighted by the World Bank (2016) which moves from the developed economies and well established P3s markets such as Australia to a different location, namely Tanzania and among members of the social systems such as Tanzanian private and public PPP stakeholders. The second qualifier of P3s as an "innovative process" within the Tanzanian context is premised on meeting one of the criteria of the seven attributes or phenomenon complying with the attributes of innovations described by Hosseini *et al.*, (2015) as "New to the institution implementing the innovation". The above assertion by the World Bank (2016) regarding P3s in Tanzania further validates and reinforces the definition. Using the same principles, and drawing upon approaches from anthropology and sociology, the P3s and associated "readiness" can be understood as a special environment where new market capabilities and routines can potentially be created. Recent studies such as Hosseini *et al.*, (2018) have applied the innovation diffusion theory (IDT) in their quest to integrate sustainability on construction mega projects (deemed a new phenomenon) within a lesser studied context such as Iran.

Therefore, drawing upon the review of the definitions as provided, the readiness assessment undertaken within the context of our study implied the ability or capability of the Tanzanian practitioners (both public and private) to adopt or implement P3s which could be inferred as new ideas. The processes or products inherent with the definition was probed from the perspective of whether the Tanzanian practitioners had any existing P3 frameworks prior to starting up their PPP projects, or whether they had a system to engage transaction advisers/solicited the expertise of others to assess their viability of their P3 housing delivery projects as well the readiness of the employees through undertaking P3 courses and training to improve their knowledge and skills, as well as being in a position to adopt the necessary strategies. The approach as undertaken was also mapped to the following five stages associated with the spread of innovation: knowledge, persuasion, decision, implementation, and confirmation (Newell, 2001). The first stage involves attaining knowledge and revelation to the innovation. The second stage, persuasion, refers to the creating of favourable attitudes and beliefs concerning the innovation in response to knowledge obtained in the first stage. The third, decision, the individual/members decide to accept or reject the innovation. The fourth, implementation, an innovation is executed. Finally, the confirmation stage includes searching for the reinforcement of the decision made.

The adoption of P3s within the Tanzanian construction industry and particularly the housing sector is still relatively in its infancy stage. This is notwithstanding the fact that one of the prominent Tanzanian public sector organisations, the National Housing Cooperation (NHC) has adopted PPPs as an alternative housing delivery strategy since the 1980s and 1990s in form of Joint ventures (JVs) prior to the formulation of P3 policies, guidelines and the Acts. However, despite the efforts in enacting the JVs, according to the World Bank (2016, pg. 26), Tanzania's infrastructure is still worse than neighboring Southern Africa Development Community (SADC) countries such as Zambia's and Uganda's and substantially worse than Kenya's and Rwanda's in terms of its impact on competitiveness.

The main contributing challenges have been the lack of adequate P3 legal framework to guide the implementation of such projects and insufficient skills and knowledge in planning, procurement and management of P3 projects (Ibid). Kavishe and An (2016) identified 19 major challenges hindering housing PPPs in Tanzania whereby the top

three ranked were related to project management as follows: inadequate P3s skills and knowledge leading to poor planning and application; poor P3s contract and tender documents; and inadequate project management and monitoring by public sector. Therefore, from the literature individual countries have different perceptions around the best practices associated with the readiness assessment for implementing P3s in affordable housing scheme (AHS) projects. In addition, given the high termination rates of P3 projects in Tanzania (World Bank, 2016); there is clearly a need for undertaking more PPP empirical studies around the readiness assessment for implementing P3s in AHS projects. Therefore, in response to the identified knowledge gaps, this study seeks to assess and investigate issues and coping strategies around the Tanzanian practitioner's readiness for PPP adoption.

According to the studies by Rogers (2002, 2004), the Diffusion of Innovation Theory seeks to explain how novel ideas, products and practices are adopted by members of a specific social group. Meaning that, diffusion process occurs when innovation is accepted and adopted by members of a certain community. Accordingly, there are four stages that should be followed for the adoption of innovation: 1) Awareness, 2) Decision to adopt (or reject); 3) Initial use; and 4) Continued use. Likewise, Rogers (2003) proposed and identified the following four main elements of IDT: innovation, communication channel, time, and social system. Therefore, our present study used this theory to aid and conceptualise the change processes when new technologies or P3s to be more precise are adopted and diffused through Tanzanian public and private sector organisations. Many researchers from various disciplines such as public health, political science, history; economics, technology, and education have employed the IDT in the area of technology diffusion and adoption (Sahin, 2006). However, there are limited studies in the construction industry and specifically the housing sector that have been conducted empirically using innovation diffusion studies. With the exception of Hosseini *et al.*, (2018) study which proposed an integrated conceptual model in order to highlight the major aspects of diffusion of innovations in the architecture, engineering and construction (AEC) context, the theory has also been applied in a recent similar study (Kavishe and Chileshe, 2018).

RESEARCH METHODOLOGY

This study adopted a qualitative data collection approach whereby semi structured interviews were chosen mainly because it facilitates to produce rich information. The target population were all the PPP experts and stakeholders involved in PPP housing projects in Tanzania. But based on the infancy of PPP in Tanzania as highlighted by the World Bank, (2016) only 10 semi-structured interviews were undertaken. The sample size is considered adequate, because the threshold of between 5-50 interviews is considered enough to reaching saturation (Patton, 2002). Similar studies such as Osei-Kei and Chan (2018) had a sample size of 10 interviewees. Therefore, a criterion-based approach was used in the selection of the interviewees as suggested by Maxwell (2005 cited in Liu and Wilkinson, 2011). The key criterion used included been a public partner or private partner to the housing P3 projects. The questions were prepared following the guidance as suggested by Qu and Dumay (2011) and were designed to assess and investigate issues around the Tanzanian practitioner's readiness for P3 adoption. The questions were further conceptualized using Roger's Diffusion of Innovation Theory (Rogers, 2002, 2004) where they were mapped to the following four stages of innovation: 1) Awareness; 2) Decision to adopt (or reject); 3) Initial use; and 4) Continued use. The duration of the interviews was between approximately 45 -100 minutes. Data was analysed through content analysis whereby;

patterns and themes were derived by identifying them as they appeared in the interview scripts. Profile of the interviewees is depicted in Table 1. It is observable that 80% of Interviewees hold top/senior positions in their organizations and participated in PPP housing projects hence prove the validity of the data collected.

Table 1: Profile of Interviewees -Individual characteristics

Interviewee	Designation of respondents	Experience in current position	Educational level	practice PPPHP	Current Status
A	Managing director	11~15years	Master's degree	Yes	Public Partner
B	Senior Legal officer	< 5 years (4yrs)	Master's degree	Yes	Public Partner
C	Assist. Legal officer	< 5 years (1yr)	Master's degree	Yes	Public Partner
D	CEO	11~15yrs (12yrs)	Master's degree	Yes	Private Partner
E	Project manager	>5 years (20yrs)	Master's degree	Yes	Public Partner
F	PPP clerk of works	> 15 years	Master's degree	Yes	Consultant
G	Managing director	> 15 years	PhD	Yes	Private Partner
H	Project manager	> 15 years	Master's degree	Yes	Public Partner
I	Associate Professor	>15 years	Ass. Professor	No	Researcher
J	Acting Director	6-10 years	Master's degree	No	PPP Advisor

RESULTS AND DISCUSSION

Based on the conceptualisation of the definition of “readiness”, interviewees were asked questions around the timing and preparation for adoption of strategies, undertaking of feasibility studies, usage of P3 frameworks, utilisation of experts in the assessment process, capacity building through training of key personnel, and selection process of private partners. Most importantly, the readiness assessment is informed by the Tanzanian practitioner’s knowledge of the P3 processes.

(a) *Timing and Preparation for Adoption of Strategies*: Rogers (2003) proposed and identified ‘time’ as one of the four main elements of IDT. Accordingly, from the innovation perspective, the ‘timing’ decision as when to start the P3 process is crucial to the success of that process. Interviewees A, B, E, F, and I acknowledged not having any form of advance preparations such as training for P3. This finding is hardly surprisingly due to P3s being relatively new phenomenon in Tanzania (World Bank, 2016). The inference and implication to be drawn from this lack of awareness is manifested in Roger's IDT (Rogers, 2002, 2004) which states that the ‘knowledge’ stage of the innovation is usually influenced by the characteristics of user (namely the Tanzanian public and private stakeholders), and characteristics of social systems.

(b) *Undertaking of Feasibility Studies*: Jamali (2004) study drew a number of lessons around P3 success and failure mechanisms and suggested that P3s must begin with careful groundwork and preparation, including a comprehensive feasibility study and economic evaluation for each potential partnership project. Based on findings, the majority (80%) of the interviewees did not undertake any form of feasibility studies, with the only exceptions being Interviewees D and J. For example, Interviewee J used the P3 coordinating unit function by giving it authority (power) to advise the public sector on the viability of the P3 project as well as examination of requests for proposals. Other strategies employed by Interviewee G included the development of procedures and guidelines for all matters in P3. The approaches and strategies undertaken by Interviewee G are also consistent with P3 literature on CSFs within developing and developed economies, as well as the need for undertaking feasibility studies (Ismail, 2013; Kwofie *et al.*, 2016)

In contrast, some of the public partners also failed to undertake the feasibility study for a number of reasons. For example, Interviewee A stated that, “The needs were

obvious, and they had to redevelop all dilapidated properties in order to safeguard them and increase organization revenue”. Therefore, the responsibility for the feasibility study was entirely left to the private partner this was confirmed by Interviewees B, C, E, and H. Likewise, Interviewee G (private partner) acknowledged not undertaking the feasibility process and stated that:

but the land allocation was very prime therefore we were quite sure that building high income residential apartment for foreigners working and living in Tanzania will give us high return on the project

The motivation of profits or high returns on the projects as expressed by Interviewee G is common practice among private partners.

(c) *Usage of PPP Frameworks*: The interviewees were asked whether they had any P3 framework models when starting up their P3 projects. Interestingly, an overwhelming majority (100%) indicated not using any formalised P3 frameworks. In contrast, they confirmed using their customised framework processes of carrying out the Joint Venture and P3 projects. This lack of awareness of existing P3 frameworks could be a recipe for failure in implementing the P3 projects. However, considering that many P3 frameworks and guides have been developed around the globe to help improve the outcomes of P3 projects (Almarri and Abuhijeh, 2017, pg. 170), this finding is further indication of the Tanzanian P3 private and public stakeholders as being in the ‘persuasion’ stage of adoption process given their usage of customized P3 frameworks. The lack of usage of frameworks among the interviewees could further be attributed to the Tanzanian regulatory framework not explicitly requiring the assessment and prioritization of PPPs within the broader context of public investment planning (World Bank, 2011, 43). Housing equally falls under public investment.

(d) *Utilisation of Experts in the Assessment Process*: The interviewees were asked whether they had a group of experts to assess the viability of the P3 projects. Majority (100%) indicated not using any experts. Meaning that, a system to engage transaction advisers was not in place. The findings around the decision by the Tanzanian private and public sector stakeholders or interviewees not to use experts in the assessment process is also consistent with literature on P3 implementation and Project Management (PM) challenges facing developing countries (Rwelamila, 2012; World Bank, 2016; Kavishe *et al.*, 2018; Osei-Kyei *et al.*, 2018). For example, the recent study by Osei-Kyei *et al.*, (2018) recommended the engagement of highly skilled and experienced external advisors to assist in the evaluation and assessment of proposals. Likewise, Rwelamila (2012, pg. 341) study of PM performance in the following selected developing countries comprising Botswana, Indonesia and Nigeria also found a lack of sufficient numbers of experts to support the planning, design and implementation of construction projects. However, the plausible explanation for the lack of engagement of P3 experts in this study could be associated with the lack of system to engage transaction advisers, P3 being relatively new in Tanzania, and hence the skills base might be lacking (Kavishe *et al.*, 2018; World Bank, 2016).

(e) *Capacity Building*: According to Luiz (2010), delivery of infrastructure projects in Africa requires the capacity to deliver massive, complex projects in an efficient manner. The same study acknowledged that African states did not possess this level of capacity although innovative public-private partnerships offered an avenue for such delivery through global cooperation. Likewise, capacity building and training have been acknowledged to enhance local practitioners’ skills and knowledge in delivering P3 projects (World Bank, 2016; Osei-Kyei and Chan, 2018, pg. 18). From the IDT perspective, it is argued that to sustain the culture for innovation, firms should

emphasise the issue of human capital (Panuwatwanich *et al.*, 2009). Therefore, in order to ascertain the Tanzanian practitioners' readiness through capacity building by training of key personnel, it was revealed that the majority (100%) indicated not having staff with the pre-requisite skills or undertaken any formal training on P3.

For example, Interviewee A indicated that, at the beginning of the P3 implementation process, they only had 3 people within the National Housing Corporation who had a rough idea of partnering with private investors, whereas only 1 person had learnt about the process indirectly having attended a short course in the US. Similarly, Interviewee G stated that their organisation was heavily reliant on the NHC joint venture policy for guidance. The observations and findings from the interviewee responses are also consistent with the challenges around the training of manpower or human resources management issues in developing countries, as well as skills around P3s (Ismail, 2013; Kwofie *et al.*, 2016). For example, Osei-Kyei *et al.*, (2018), highlighted that, employment of highly skilled and competent staff during evaluations of proposals is among the strategies for effective management of unsolicited proposals for P3 implementation. Similarly, as noted by Kavishe *et al.*, (2018), as part of the capacity building, the identified PPP training should be preceded by assessing levels of P3 knowledge-base and skills in order to recognize their awareness level and tailor-made the course as appropriate.

(f) *Selection of Private Partners*: The last part was the evaluation around the selection of private partners. The basis of evaluation has also been identified as a key concern of procurement (Ruparathna and Hewage, 2015). Therefore, interviewees were asked how they selected their private partners with probing questions around whether it was through competitive selection, single source, and dependent on the selected option, the justification for that approach was sought. The findings revealed some mixed results ranging from opening tendering (Interviewee A); unsolicited proposals (Interviewees B, E, H and F), no selection procedures (Interviewees D, G, I and J) to non-competitive selection (Interviewees C and F). However, the above findings are consistency with literature on the enablers or CSFs around PPP implementation and procurement aspects (Chan *et al.*, 2010; Wibowo and Alfen, 2015; World Bank, 2016). For example, the comparative study of the UK and Hong Kong by Chan *et al.*, (2010) identified competitive procurement process (enough bidders in the process), and transparency procurement process among the CSFs for P3s implementation.

Additionally, there was evidence of non-competitive selection as Interviewee C stated that it was merely on first come, first serve basis, whereas Interviewee F commented this was a non-competitive selection because it was an unsolicited proposal meaning that the private partner sold out the idea to the public sector and eventually became partners. The pattern was the same with some evidence of open tendering of proposals. For example, Interviewee A observed that:

Partners were not officially selected. Instead a list of projects was drawn out and interested investors or developers would come and pick the projects they would wish to develop and then will prepare their proposals

Similarly, Interviewee B expressed the same sentiments and noted that, “partners came in themselves to select the plots they were interested to develop, then after making a choice, they brought in their development proposal to be assessed. The inference from the above findings is that, as part of the readiness process, selection of private partners must be given due consideration.

CONCLUSIONS AND RECOMMENDATIONS

In order to gain insights into the Tanzanian practitioner's readiness for change in implementing the P3s within the housing projects delivery, a qualitative approach comprising semi-structured interviews was adopted. The readiness assessment highlighted a number of challenges including; a lack of awareness and usage of P3 framework models during the feasibility and subsequent implementation process; limited knowledge and skills required for P3 practitioners exacerbated by poor capacity building; lack of engagement of experts during the viability and assessment process, and poor selection process of private partners giving rising to unsuccessful projects. These main challenges were further established to be nested within the structural, relational and cognitive issues affecting the readiness process. In terms of the readiness strategies and approaches, the following six were identified: (i) timing and preparation for adoption of strategies; (ii) undertaking of feasibility studies; (iii) usage of PPP frameworks; (iv) utilisation of experts in the assessment process; (v) enhanced capacity building; and (vi) selection of private partners. Additionally, the findings of the study further confirmed the assertions of the Roger's Diffusion of Innovation Theory (Rogers, 2002, 2004) regarding the limited P3 knowledge exhibited by the Tanzanian practitioners. This also highlighted the state and characteristics of the Tanzanian public and private sector users and social systems as being in the infancy stage (World Bank, 2016) as the main overarching reasons for the lack of knowledge around P3 processes.

A number of important implications for P3 practitioners, policy makers, and government are suggested. For practitioners, by understanding and identifying the readiness assessment strategies and approaches, both the Tanzanian private and public sectors P3 practitioners would be supported in successfully implementing P3s in housing projects. For government and policy makers, the undertaking of the 'readiness assessment' would enable and provide them with an opportunity for the development of appropriate strategies and coping mechanism specifically conducive for the Tanzanian environment. Secondly, this 'readiness assessment' would inform the formulation of policy guidelines for effective management of unsolicited P3 proposals. Thirdly, the results of this study further foster a better understanding of the readiness assessment strategies and approaches for successfully implementing P3 in housing projects. Subsequently, this could lead to improved performance outcomes within a sector and economy acknowledged as having earlier P3 project terminations. Finally, the findings would provide both the government and practitioners with policy directions and best practice associated with encouraging the diffusion of innovation as suggested by the Rogers Diffusion of Innovation Theory. The main limitation of the study was around the lack of generalization as the interviewees consisted of stakeholders drawn from only one city in Tanzania, namely Dar-es-Salaam. Future studies should be extended to other parts of Tanzania.

REFERENCES

- Almarri, K and Abuhijleh, B (2017) A qualitative study for developing a framework for implementing public-private partnerships in developing countries, *Journal of Facilities Management*, 15(2), 170-189.
- Al-shareem, K M, Roosli, R B and Yusof, N A (2013) Readiness to adopt public-private partnership (PPP) in housing development in Yemen, *In: International Conference on Business Innovation, Entrepreneurship and Engineering*, December, Penang, Malaysia, 67-70.

- Al-Shareem, K M, Yusof, N A and Kamal, E M (2015), External factors influencing the readiness for implementing public-private partnerships among public and private organizations in Yemen, *Journal of Science and Technology Policy Management*, 6(1), 56-75.
- Bernerth, J (2004) Expanding our understanding of the change message, *Human Resource Development Review*, 3(1), 36-52.
- Chan, A P, Yeung, J F, Calvin, C, Wang, S Q and Ke, Y (2010) Empirical study of risk assessment and allocation of public-private partnership projects in China, *Journal of Management in Engineering*, 27(3), 136-148.
- Hosseini, M R, Chileshe, N Zuo, J and Baroudi, B (2015), Adopting global virtual engineering teams in AEC Projects: A qualitative meta-analysis of innovation diffusion studies, *Construction Innovation*, 15(2), 151-179.
- Hosseini, M R, Banihashemi, S, Martek, I, Golizadeh, H and Ghodoosi, F (2018), Sustainable delivery of megaprojects in Iran: Integrated model of contextual factors, *Journal of Management in Engineering*, 34(2), 05017011-1.
- Ismail, S (2013) Critical success factors of public private partnership (PPP) implementation in Malaysia, *Asia-Pacific Journal of Business Administration*, 5(1), 6-19.
- Jamali, D (2004) Success and failure mechanisms of public private partnerships (PPPs) in developing countries: Insights from the Lebanese context, *International Journal of Public Sector Management*, 17(5), 414-430.
- Kavishe, N and An, M (2016) Challenges for implementing Public Private partnership in housing projects in Dar es Salaam City, Tanzania In: Chan, P W and Neilson, C J (Eds.), *Proceedings of the 32nd Annual ARCOM Conference*, 5-7 September 2016, Manchester, UK, Association of Researchers in Construction Management, 2:931-940.
- Kavishe, N, Jefferson, I and Chileshe, N (2018) An analysis of the delivery challenges influencing Public Private Partnership in housing projects: The case of Tanzania, *Engineering, Construction and Architectural Management*, 25(2), 202-240.
- Kavishe, N and Chileshe, N (2018) Identifying project management practices and principles for public-private partnerships in housing projects: The case of Tanzania, *Sustainability*, 10(12), 1-23.
- Kidata, A (2013) A brief of urbanization in Tanzania in Prime Minister's office regional administration and local government, 1 June 2013, *Resilient Cities Conferences*, Bonn.
- Kwofie, T E, Afram, S and Botchway, E (2016) A critical success model for PPP public housing delivery in Ghana, *Built Environment Project and Asset Management*, 6(1), 58-73.
- Liu, T and Wilkinson, S (2011) Adopting innovative procurement techniques: Obstacles and drivers for adopting Public Private Partnerships in New Zealand. *Construction Innovation*, 11(4), 452-469.
- Luiz, J (2010), Infrastructure investment and its performance in Africa over the course of the twentieth century, *International Journal of Social Economics*, 37(7), 512 -536.
- Morledge, R and Owen, K (1998), Critical success factors in PFI projects, In: W Hughes, (Ed.) *14th Annual ARCOM Conference*, 9-11 September 1998, University of Reading Association of Researchers in Construction Management 2, 565-574.
- Newell, S (2001) Management fads and fashions, *Organization*, 8(1), 5-15.

- NHC (2010) *The National Housing Corporation Strategic Plan for 2010/11- 2014/15*. Dar es Salaam: National Housing Corporation.
- Osei-Kyei, R, Chan, A P C, Javed, A A and Ameyaw, E E (2017) Critical success criteria for public-private partnership projects: international experts' opinion, *International Journal of Strategic Property Management*, 21(1), 87-100.
- Osei-Kyei, R and Chan, A P C (2018) Public sector's perspective on implementing Public-Private Partnership (PPP) policy in Ghana and Hong Kong, *Journal of Facilities Management*, 16(2), 175-196.
- Osei-Kyei, R, Chan, A P C, Dansoh, A, Ofori-Kuragu, J K and Oppong, G D (2018), Strategies for effective management of unsolicited public-private partnerships proposal, *Journal of Management in Engineering*, 34(3), 113-123.
- Panuwatwanich, K, Stewart, R A and Mohamed, S (2009), Validation of an empirical model for innovation diffusion in Australian design firms, *Construction Innovation*, 9(4), 449-46.
- Qu, S Q and Dumay, J (2011) The qualitative research interview, *Qualitative Research in Accounting and Management*, 8(3), 238-264.
- Rogers, E (2002) Diffusion of preventive innovations, *Addictive Behaviors*, 27(6), 989-93.
- Rogers, E M (2003) *Diffusion of Innovations 5th Edition*. New York, NY: The Free Press.
- Rogers, E (2004) A prospective and retrospective look at the diffusion model, *Journal of Health Communication*, 9(1), 13-19.
- Ruparathna, R and Hewage, K (2015), Review of contemporary construction procurement practices, *Journal of Management in Engineering*, 3(31), 04014038.
- Rwelamila, P D (2012) Construction project performance in developing countries, In: G Ofori, (Ed.) *Contemporary Issues in Construction in Developing Countries*, London: Spoon Press/Taylor and Francis, 318-346.
- Sahin, I (2006) Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory, *Turkish Online Journal of Educational Technology*, 5(2), 14-23.
- Stock, J R (1977) Applying theories from other disciplines to logistics, *International Journal of Physical Distribution and Logistics Management*, 27(9/10), 515-539.
- Wibowo, A and Alfen, H W (2015) Government-led critical success factors in PPP infrastructure development, *Built Environment Project and Asset Management*, 5(1), 121-131.
- World Bank (2016) Tanzania Economic Update: The Road Less Traveled, Unleashing Public Private Partnerships in Tanzania Africa Available from <http://documents.worldbank.org/curated/en/302151467992051044/Tanzania-economic-update-the-road-less-traveled-unleashing-public-private-partnerships-in-Tanzania> [Accessed 10 March 2018].