DETERMINATION OF THE LEADING STRATEGY FOR SUCCESSFUL DELIVERY OF INFRASTRUCTURE DEVELOPMENT PROJECTS UNDER PUBLIC - PRIVATE PARTNERSHIP FOR SUSTAINABLE TRANSFORMATION OF TANZANIA INTO AN INDUSTRIALISED ECONOMY: THE CASE OF KIGAMBONI BRIDGE PROJECT IN DAR ES SALAAM TANZANIA

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Abstract

Public-Private Partnership (PPP) concept is an important model for provision of infrastructure in an efficient and timely cost-effective manner and is a vehicle which could facilitate Government’s new drive for industrialization, alleviate Public Sector financial constraints and enable sustainable economic growth through infrastructure development. Apparently the application PPP concept in many African Countries including Tanzania remains limited, which needs to be improved. This paper presents findings of a research conducted to investigate Government’s Leading Strategy in delivering infrastructure projects under PPP approach through a case study of Kigamboni Bridge project. Questionnaire survey research examined the relative importance of subjectively obtained 27 SWOT factors from literature review which influence delivery of PPP projects. The survey data were analysed, prioritised and ranked using Principal Component Analysis (PCA) tool in SPSS version 21. Twelve (12) SWOT factors or three (3) factors per SWOT letter produced from the prioritization exercise were then ranked according to their intensity of influence commensurate with their relative weights and used as input into the SWOT Clock Strategic Model (Tirosh, 2010). The output of the model was the creation of four possible strategies of Growth, Response, Survival and Leverage. The Leading Strategy was determined to be the Leverage Strategy which is characterized by higher Weaknesses than Strengths and greater Opportunities than Threats. Subsequently the influencing factors corresponding to the higher Weaknesses as ranked in three (3) levels were identified as the available financial market, thorough and realistic cost-benefit analysis, and appropriate risk allocation and risk sharing. The paper recommends to the Government to improve the Availability of Financial Market while Engineers and staff of other related disciplines should enhance their capacity to deliver PPP projects in order to stimulate delivery of infrastructure development projects under PPP approach, thereby impacting positively on the Government’s new impetus for industrialisation and economic growth in Tanzania.

1.0 INTRODUCTION

In an endeavour to bridge the growing gap between the cost of infrastructure needed and the resources available in the country, Tanzania developed Public-Private Partnership (PPP) policy in 2009 followed by PPP Act of 2010 and its amendments in 2014; as well as PPP Regulations of 2015. The purpose of legal and regulatory framework is to facilitate Private Sector investment in infrastructure projects and services. These efforts have been undertaken in consideration that PPP concept is an important model for provision of infrastructure in an efficient and timely cost-effective way, eventually alleviating financial burden on the Public Sector against the rising infrastructure development costs. Furthermore such undertaking underscores the fact that a widely accessible and reliable infrastructure such as roads, ICTs, transport and electricity is fundamental for economic growth, higher employment, enhancement of living standards for the people and
invariably boosting the Government’s new impetus and drive for industrialization. With such attractive promises of the PPP model, to-date the implementation of the PPP policy is still limited, needing to be improved (EIU, 2015). This paper presents research findings in which SWOT (Strengths, Weaknesses, Opportunities and Threats) strategic behaviour model was applied to determine the Leading Strategy or Tanzania’s readiness and capacity to implement sustainable and efficient PPP projects in the transport sector through a case study of Kigamboni Bridge project. The paper is structured in five sections. Following this introduction, the second section presents literature review of PPP complexities relative to Government responsibilities and how SWOT Clock Strategic Model could be invoked to examine Government’s capacity and readiness to successfully deliver PPP projects. The third section describes the methodology employed followed by the fourth section which elucidates data analysis processes and findings are presented. Finally in section five a conclusion and recommendations are drawn.

2.0 Literature Review

2.1 Public –Private Partnership

Public-Private Partnership (PPP) can be defined as a long-term contract between a Private Party and a Government Agency, for providing a public infrastructure or service, in which the Private Party bears significant risks and management responsibilities (World Bank, 2012). In PPP the service delivery objectives of the government are aligned with the profit objectives of the private partner (Eldrup and Schütze, 2013). With such arrangement, PPP projects have become difficult to execute, requiring robust regulatory and institutional architectures, high levels of technical capacity, political will and social consensus. Furthermore PPP project cycle is a complex one, requiring skills in financial analysis and modelling, structuring of transactions, expertise in commercial law, and sector knowledge. (EIU, 2015). Consequently the Government has to overcome the challenges of building PPP enabling environment, identifying and selecting appropriate projects, establishing capable coordinating and supportive authority, issuing transparent tenders, selecting suitable concessionaire and structuring robust contracts. The Government must also ensure the presence of legal and regulatory framework as the checks and balances for enabling proper execution of these projects and to be actively involved in project life-cycle phases (Kwak et.al, 2009).

2.2 Capacity and Readiness of Government for Successful Delivery of PPP Projects

Successful delivery of PPP projects entails improving government’s capacity to execute and manage innovative partnerships in pursuit for means of averting formidable challenges at earlier and later stages of PPP market development, as countries increasingly apply the PPP approach to infrastructure projects across a number of sectors (Doloiitte Research, 2006). Indeed the need for undertaking self-evaluation of government’s capacity and readiness to deliver PPP projects, followed by continuous improvement in areas where weaknesses are identified, cannot be overstated. Recent evaluation of 15 African countries readiness and capacity to implement sustainable and efficient PPP projects in key infrastructure sectors, showed that majority of those countries had weaknesses in most key indicators for creating enabling environment for successful delivery of PPP projects as depicted in Figure 1 (EIU, 2015).

2.3 SWOT Analysis of the Government as an Organization Implementing PPP Projects

SWOT analysis is a technique for understanding an organization and its environment, credited to Albert Humphreys of Stanford University for his research work in 1960s and 1970s (Tirosh, 2013). Strength factors are those which gives the organization an edge over its competitors while Weakness factors are those which when used by its competitors will harm the organisation. On the other hand, Opportunity factors are those which can bring competitive advantage to the
organisation whereas Threat factors are the unfavourable situations that can negatively affect the organisation (Jurevicius, 2013).

Figure 1: Evaluation of Readiness and Capacity for PPP in Africa

![Evaluation of Readiness and Capacity for PPP in Africa](image)

Source: Developed from EIU, 2015

As an essential part of organisation strategy, SWOT analysis of its internal Strengths and Weaknesses as well as its external Opportunities and Threats is an important component for strategy formulation and implementation (Lynch, 2006). Despite the popularity of the traditional SWOT analysis, it has inherent flaws associated with being subjective and too often only a superficial imprecise listing or an incomplete qualitative examination of internal and external factors, with no criteria for prioritization or the means to analytically assess the fit between SWOT factors and decision alternatives (Chang & Huang, 2006); (Lynch, 2006); (Moghaddaszadeh et al., 2015). With the exception of the pioneering work by Chang & Huang 2006, the SWOT approach is also faced with strategic positioning dilemma on the time axis (Tirosh, 2010). Therefore, the rational approach in SWOT analysis developed by Tirosh, 2010 has been adapted for the current research as the means of achieving the desired study objective while overcoming the weaknesses identified in the traditional SWOT.

2.4 The SWOT Clock Strategic Behaviour Model

The SWOT Strategic Clock Model is an innovative extension of the traditional SWOT paradigm in a rationalistic typology that minimises some of its weaknesses (Tirosh, 2010). The model approach is structured in such a way that at any given moment there is a ‘Leading Strategy’ which takes into account the close relationship of the internal factors (Strengths and Weaknesses), and intensity of the external factors of the environment (Opportunities and Threats). The SWOT factors are quantified based on a list of Influential Factors (internal and external), and a Relative Weight assigned to each influencing factor reflecting the priority level and its impact, and the momentary position of influencing factors. The Leading Strategy is determined by choosing the most suitable of four possible strategies (‘Growth’, ‘Response’, ‘Survivor,’ and ‘Leverage’). Eventually the weighted values present a two dimensional representation of the current organisation Leading Strategy which may be traced over a period of time as a vector in the Cartesian coordinate system (Tirosh, 2013).

2.5 Determination of PPP SWOT Factors for the Public Sector

In a PPP business venture, it is envisaged that all partners looking for potential mutual benefits in the partnership, invoke the well-established strategy formulation tools, such as the Political, Economic, Social and Technological (PEST) tool for situation analysis of external environment
followed by SWOT analysis as depicted in Figure 2 (Roumboutsos & Chiara, 2010). This study is focused on SWOT analysis for the Public Sector partner, particularly the government. In this case the Strengths and Weaknesses of the government to deliver PPP projects can be appraised based on its performance on the set of government related drivers for successful delivery of PPP projects (Nyamhanga & Ngoiya 2016). Similarly the realization of opportunities in PPP can be assessed based on the performance of the partnership between the Public and Private Sector in delivering infrastructure projects. Such opportunities are realised where indeed the partnership becomes a sustained collaborative effort between them to achieve a common objective. In that case the overlapping of interests of the Public and the Private Sector consolidates the possibilities of achieving synergy effects and maintaining partnerships under a win-win situation (Sajko, 2009); (Hardcastle et. al., 2005). On the other hand, in the event that the objectives and interests in the partnership are counteracting, or the good will working environment is flawed, threats that can endanger the partnership existing between the Public and Private Sectors arise (Harris, 2003); (Eldrup and Schütze, 2013); (World Bank Group, 2014). The SWOT factors for Public-Private Partnership to deliver infrastructure projects as determined subjectively are listed in Table 1.

![Figure 2: Strategic Partnering Model](image)

Table 1 Summary of PPP SWOT Factors

<table>
<thead>
<tr>
<th>PPP SWOT GROUPING</th>
<th>SWOT FACTORS</th>
</tr>
</thead>
</table>
| **STRENGTHS**     | 1. Stable macro-economic condition  
|                   | 2. Adequate legal and regulatory framework  
|                   | 3. Sound economic policy  
|                   | 4. Available financial market  
|                   | 5. Favoursable investment climate  
|                   | 6. Appropriate risk allocation and risk sharing  
|                   | 7. Establishing coordinating and supportive Authority  
|                   | 8. Selecting a suitable Concessionaire  
|                   | 9. Good governance  
|                   | 10. Being actively involved in the Project Life-Cycle Phases  
|                   | 11. Political support  
|                   | 12. Competitive procurement process (Process is made open to competition)  
|                   | 13. Transparency procurement process (Process is made open and public)  
|                   | 14. Government involvement by providing guarantee  
|                   | 15. Thorough and realistic assessment of the cost and benefits  
| **WEAKNESSES**    | 1. Acquisition of Private Sector Technology and Innovation  
|                   | 2. An alternative additional source of funding to meet funding gap  
|                   | 3. Improved Local Private Sector capabilities  
|                   | 4. Transfer of Skills to Public Sector employees  
|                   | 5. Economic competitiveness through improved infrastructure base  
|                   | 6. Achieving long-term value-for-money through appropriate risk transfer  
| **OPPORTUNITIES** | 1. Risk of Project not attaining the Return on Investment as planned  
|                   | 2. Political and social challenges such as significant tariff increases or if there are significant land or resettlement issues, etc.  
|                   | 3. Changes in Government Policy, failure by the private operator or the Government to perform their obligation  
|                   | 4. Reduced accountability due to a great deal of Project information being treated as “commercial-in-confidence”;  
|                   | 5. Renegotiations as a result of opportunistic behaviours from contracting parties  
|                   | 6. Corrupt elements at procurement and renegotiation stage  
| **THREATS**       | 1. Stable macro-economic condition  
|                   | 2. Adequate legal and regulatory framework  
|                   | 3. Sound economic policy  
|                   | 4. Available financial market  
|                   | 5. Favorable investment climate  
|                   | 6. Appropriate risk allocation and risk sharing  
|                   | 7. Establishing coordinating and supportive Authority  
|                   | 8. Selecting a suitable Concessionaire  
|                   | 9. Good governance  
|                   | 10. Being actively involved in the Project Life-Cycle Phases  
|                   | 11. Political support  
|                   | 12. Competitive procurement process (Process is made open to competition)  
|                   | 13. Transparency procurement process (Process is made open and public)  
|                   | 14. Government involvement by providing guarantee  
|                   | 15. Thorough and realistic assessment of the cost and benefits  
| **Internal to the Government** | 1. Acquisition of Private Sector Technology and Innovation  
|                   | 2. An alternative additional source of funding to meet funding gap  
|                   | 3. Improved Local Private Sector capabilities  
|                   | 4. Transfer of Skills to Public Sector employees  
|                   | 5. Economic competitiveness through improved infrastructure base  
|                   | 6. Achieving long-term value-for-money through appropriate risk transfer  
| **External to the Government** | 1. Risk of Project not attaining the Return on Investment as planned  
|                   | 2. Political and social challenges such as significant tariff increases or if there are significant land or resettlement issues, etc.  
|                   | 3. Changes in Government Policy, failure by the private operator or the Government to perform their obligations  
|                   | 4. Reduced accountability due to a great deal of Project information being treated as “commercial-in-confidence”;  
|                   | 5. Renegotiations as a result of opportunistic behaviours from contracting parties  
|                   | 6. Corrupt elements at procurement and renegotiation stage  

Source: Current Study
3.0 RESEARCH METHODOLOGY

3.1 Review Kigamboni Bridge Project Documents

Kigamboni Bridge is the first project of its kind in Tanzania which is being implemented under the Public - Private Partnership approach using Design – Build – Finance – Operate and Transfer (DBFOM) Model. Its construction begun in February 2012, was opened to traffic in April 2016 and thereafter it was renamed as Nyerere Bridge on its inauguration day. As a result of limited interest of the Private Sector to invest into the construction of the Bridge under PPP approach it took several years of government advertisement since 1990s with no avail. Ultimately in 2003 the Tanzania’s National Social Security Fund (NSSF) proposal to deliver the Bridge under PPP approach was accepted by the Government. Subsequently, NSSF was entrusted with the responsibility of designing the project, financing, construction, operations and maintenance, collecting and retaining toll charges from the users of the bridge and finally transferring back the Bridge to the Government. The Bridge total construction cost was USD 143.5 million whereby the NSSF financed 60 per cent of the project costs while the remaining 40 per cent of the cost was funded by the Government as a viability fund (CRiSi, 2010).

3.2 Structured Questionnaire Survey

In order to ensure an effective questionnaire design, a structured-questionnaire was adapted from Li (2003) and designed with two parts. The first part required personal information of respondents which included organisation name and his or her position, academic qualification, primary role and responsibility in the Public or Private Sector or Kigamboni Bridge, years of work experience, years of experience in implementing Kigamboni Bridge, number of PPP projects to have been involved in and whether he or she has attended a course on Public-Private Partnership concept. The second part relates to objectives of this research. A total of 100 questionnaires were distributed to various stakeholders involved in one way or another in the delivery of the Bridge project based on non-probabilistic or purposive selection of respondents. They were asked to rate on a 5-point Likert scale in order to measure the level of agreement between respondents on the statements provided which depicted Government Strengths and Weaknesses, Opportunities and Threats factors influencing successful delivery of the Bridge project under PPP approach. For Strengths and Weaknesses factors, rating number one (1) represented very weak and rating number five (5) stood for very strong. Similar procedure was repeated for Opportunities and Threats factors with relevant response scale anchors. Lastly for all factors respondents were required to select “N/A” if they were uncertain in rating a particulars statement. Out of 100 administered questionnaires, 67 completed questionnaires were collected from respondents, representing a response rate of 67%. An in-depth look at completed questionnaires showed that 53 responded well to the question concerning Strengths and Weaknesses while 63 responded well to questions concerning Opportunities and Threats factors respectively. Thus the questionnaires were considered suitable for analysis as a case of having different sample sizes for each question analysed (Kitchenham & Pfleeger 2003).

4.0 DATA ANALYSIS AND RESULTS

4.1 Personal Information Data Analysis

All personal information responses were coded and analysed in SPSS version 21. Among the results, one stands out, indicating that out of total 67 respondents, 49 of them or 73.1% had Masters Degrees and above, mainly in Economics and Engineering, thus capable of correctly completing the questionnaire. Detailed results of personal information data have been reported in Nyamhanga & Ngoiya, (2016).
4.2 Descriptive Statistical Data Analysis

4.2.1 Strength and Weakness Factors

Strengths and Weaknesses factors were to be identified and separated from each other based on respondent’s rating on the same scale, the government linked drivers for successful delivery of Kigamboni Bridge. Factors with percentage rating exceeding 40% representing very weak, weak and average scale anchors were collectively considered as weakness factors. They are the available financial market, appropriate risk allocation and sharing, and thorough and realistic cost-benefit analysis. The remaining 12 factors, for which respondent’s frequency rating of strong and very strong exceeded 60% were considered to be Strength factors as depicted in Figure 3.

4.2.2 Opportunities and Threats Factors

Respondent’s rating of Opportunity factors had a medium value of four (4) which stand for “more attained”, indicating that most of them agreed that the suggested statements represented opportunity factors. Similarly five (5) out of six (6) Threat Factors attained respondents rating of a median value of three (3) which stands for “sometimes encountered” while only one factor named “Political and Social challenges” attained a median value of (4) meaning that it was the most often encountered threat as shown in Figure 4.

Figure 3: Rating of Government Strength and Weakness Factors for SWOT Analysis

![Government Strength and Weakness Factors](source: Current study)

Figure 4: Respondents Frequency Median Values for Government’s Threat Factors

![Government Threat Factors](source: Current study)
4.3 Inferential Statistical Data Analysis

4.3.1 Prioritization of SWOT Factors by Principal Component Analysis

The SWOT data for Strengths, Weaknesses, Opportunities and Threats having passed descriptive statistical analysis stage were prioritized separately by applying dimension reduction factor analysis procedure in SPSS, using Principal Component Analysis (PCA). The process was followed by elimination of cross-loaded factors (Tabachnick & Fidell, 2013) as well as ranking and deletion of factors whose magnitude of factor loading fell below the mean value of factor loadings of all factors within a Principal Component (Moghadaszadeh et. al., 2015). In this way the process prioritized and reduced the 27 SWOT factors to finally 12 factors or three (3) factors per each SWOT acronym letter as well as ranking them by the magnitude of their factor loadings.

4.3.2 SWOT Diamond Strategy Vector Analysis

The procedure for the application of SWOT Clock Strategic Model to determine the Leading Strategy used parameters of prioritized and ranked Influencing Factors. The established Influencing Factors, three (3) variables for each SWOT acronym letter were then combined to form two sets of six variables each for SWOT’s internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats) respectively. These two sets of variables were then analysed separately by Principal Component Analysis to produce new SWOT factors ranking according to the magnitude of the new factor loadings. Concurrently the initial Eigenvalues as a percentage of total variance corresponding to the SWOT factors were also produced. Thereafter the positioning of SWOT factors was performed on a three level scale depending on their relative importance ranking. Level three (3) represented High position while level two (2), Medium and level one (1) Low position. The relative positions of SWOT factors and the intensity of their influence are depicted in Figure 5.

**Figure 5: Summary of SWOT Influencing Factors and their Positions**

Since the percentage of the total variance of each set of six variables add up to 100%, the value of such percentages were considered to be the relative weights for the influencing SWOT factors (Ma’ruf, 2007). A new ranking of relative importance of the SWOT factors was then determined by considering the magnitude of the resulting initial eigenvalues percentage of total variance or
relative weights. This process produced a quantitative objective measuring index which represents the factor’s quantitative value for which a set of two (2) Weighted Power Intensity (WPI) matrices were developed for both the Organization and the Environment. Using these matrices it was possible to calculate quantitatively the power intensity of the four SWOT factors as the product of the relative weight of each factor with the corresponding assigned position value as depicted in Tables 2 and Table 3.

Table 2: A Matrix for Power Intensity of the Government’s Strength and Weakness in Relation to Delivery of Kigamboni Bridge PPP Project

| S/N | Influencing Factor | Factor Loading | Initial Eigenvalue % of Variance | Relative Weight | Measuring Scale | Power Intensity of "Strength" | Power Intensity of "weakness" |
|-----|-------------------|----------------|----------------------------------|----------------|----------------|----------------------------|----------------------------
| 1   | Available financial market | .804           | 55.903                           | 55.903         |                | Weighted intensity         | 167.71                     |
| 2   | Thorough and realistic cost-benefit assessment. | .796           | 13.669                           | 13.669         |                | Weighted intensity         | 27.338                     |
| 3   | Being actively involved in project’s life cycle | .788           | 11.947                           | 11.947         |                | Weighted intensity         | 15.84                      |
| 4   | Good Governance | .727           | 8.172                            | 8.172          |                | Weighted intensity         | 16.344                     |
| 5   | Competitive procurement process | .704           | 6.039                            | 6.039          |                | Weighted intensity         | 6.04                       |
| 6   | Appropriate risk allocation and risk sharing, | .653           | 4.269                            | 4.269          |                | Weighted intensity         | 4.27                       |

Source: Current study

Table 3: A Matrix for Power Intensity of the External Environment Opportunities and Threats in Relation to Delivery Kigamboni Bridge PPP Project

| S/N | Influencing Factor | Factor Loading | Initial Eigenvalue % of Variance | Relative Weight | Measuring Scale | Power Intensity of "Opportunities" | Power intensity of "Threats" |
|-----|-------------------|----------------|----------------------------------|----------------|----------------|-------------------------------|----------------------------
| 1   | Economic competitiveness through improved infrastructure base | .854           | 39.256                           | 39.256         |                | Weighted intensity             | 127.8                      |
| 2   | Political and social challenges such as tariff increase, land and resettlement issues | .942           | 26.935                           | 26.935         |                | Weighted intensity             | 53.87                      |
| 3   | Opportunistic behaviour of contracting parties leading to renegotiations | .991           | 16.772                           | 16.772         |                | Weighted intensity             | 50.32                      |
| 4   | Changes of Government policy or failure by the private operator or Government to perform their obligations | .926           | 7.418                            | 7.418          |                | Weighted intensity             | 7.42                       |
| 5   | Improved Local Private Sector capabilities | .846           | 6.229                            | 6.229          |                | Weighted intensity             | 12.458                     |
| 6   | Achieving long-term value-for-money through appropriate risk transfer to the Private Sector | .840           | 3.390                            | 3.390          |                | Weighted intensity             | 3.39                       |

Source: Current study

In summary, the Weighted Power Intensity (WPI) variables in the SWOT Clock Strategic Model as a combination of factors from both Tables 2 and Table 3 are presented in Table 4. It shows that
the Strength Intensity is smaller than the Weakness Intensity and the Opportunity Intensity is higher than the Threat Intensity, thereby consolidating the Leading Strategy as depicted in Figure 6.

Table 4: Summary of the Weighted Power Intensity of Variables for SWOT Clock Strategic Model

<table>
<thead>
<tr>
<th>Strength Intensity</th>
<th>Opportunity Intensity</th>
<th>Weakness Intensity</th>
<th>Threat Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>O</td>
<td>W</td>
<td>T</td>
</tr>
<tr>
<td>58.22</td>
<td>133.62</td>
<td>199.32</td>
<td>111.60</td>
</tr>
</tbody>
</table>

Source: Current study

Figure 6: The SWOT CLOCK Diamond Behaviour Model in Relation to Delivery of Kigamboni Bridge PPP Project

Positioning of the Weighted Power Intensity of each SWOT intensity factor in the SWOT Clock Diamond Behaviour Model, involves creating simultaneously four triangles which represents four possible strategies of Growth, Response, Survival and Leverage using values from Table 4. The quadrant with the largest triangle determines the Leading Strategy which in this case is the Leverage Strategy. Finally the strategic pointer position is at a point within the third Quadrant of the Cartesian coordinate system having coordinates (22.10 [opportunities], 141.10 [weaknesses]) as indicated by the pointer vector which begins at the origin passing through (O22, W141) as depicted in Figure 6.

5.0 CONCLUSION AND RECOMMENDATIONS

In determining the Leading Strategy which is being applied by the Government to deliver Kigamboni Bridge, the findings show that the Principal Component Analysis iteratively prioritized and reduced 27 SWOT factors to 12 SWOT factors, six (6) each for both internal and external environment factors. Subsequent ranking of those factors through the factor loading and later by their relative weights corresponding to initial Eigenvalues percentage of total variance became an input into the SWOT Clock Strategic Model. From the positioning and the relative weights, four
weighted triangles were simultaneously created within the SWOT Clock Diamond Behaviour Model representing four possible strategies namely, Growth, Response, Survival and Leverage Strategy.

The largest triangle determined the Leading Strategy, which for the current study is the Leverage Strategy. This Strategy is characterized by higher Weaknesses than Strengths and greater Opportunities than Threats. These results indicate that the Government is using the Leverage Strategy for delivery of Kigamboni Bridge project under PPP approach. In such a case, the Government’s SWOT weakness influencing factors as per the three levels ranking of SWOT factors are the available financial market, thorough and realistic cost-benefit analysis, and appropriate risk allocation and risk sharing respectively.

The case study has shown that PPP approach is a viable alternative means of delivering infrastructure development projects provided that the Government spearheads the process and addresses its weaknesses in improving and making better the available financial market factor which has the highest negative impact for the delivery of Kigamboni Bridge project. Concurrently engineers and staff of other related disciplines need to improve their capacity in the area of preparing sound cost-benefit analysis as part of project formulation and risk evaluation and allocation in PPP projects. A more robust study is recommended in order to find out in much detail the use of Principal Component Analysis (PCA) for prioritization of SWOT factors as well as for determination of Relative Weights of SWOT factors in a separate similar study which is not a case study strategy.

Indeed the results of the determined Leverage Strategy position happen to be similar to the Emerging Category among the four categories of Nascent, Emerging, Developed and Mature, as determined by the Economic Intelligence Unit, (2015), to be the rating of Tanzania’s readiness and capacity to implement sustainable and efficient PPP projects in key infrastructure sectors. In fact the study found out that many African countries including Tanzania face a broader shortage of skilled staff with expertise in areas such as risk evaluation, contract design, project preparation and financing, and economic analysis of PPP benefits compared with alternatives as well as the need of a greater numbers of skilled legal experts, both to improve laws and ensure swift and efficient legal processes in the event of dispute. As for the available financial market, the study also found out that few African countries have a deep, liquid local market for financing PPP infrastructure projects, although progress is being made to enhance capital markets and issuances of bonds such as municipal bonds (EIU, 2015).

Based on the findings, it is suggested that among other requirements for successful delivery PPP projects, the Government need to improve upon both the financial market for financing infrastructure projects as well as developing the required capacity of its engineers and staff of other related disciplines to formulate and implement successfully infrastructure development projects under Public–Private Partnership approach. Such efforts will gradually bridge the infrastructure gap thereby leading to achievement of the goals of Government’s new thrust for industrialization. Specifically engineers of various specialties are advised to be more proactive in acquiring the required training in PPP approach to infrastructure delivery. Arguably, engineers may also take the initiative of making regular visits to new and existing industries located within their working areas. The purpose of such visits would be to acquaint themselves with performance of those industries in relation the state of the infrastructure provided and advice the Government on specific interventions needed to meet the goals for industrialization in Tanzania.
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