MANAGING THE COMPLEXITY OF PUBLIC PRIVATE PARTNERSHIPS INITIATIVES: HOW MATURE ARE SOUTH AFRICAN PUBLIC INSTITUTIONS?

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Public Private Partnership (PPP) principles in South Africa have grown over recent years as the merits of blending private sector resources and skills, with the public ones has become evident. It has also become clear that the PPP architecture is complex and such projects require a detailed understanding of their design and implementation. A number of PPP projects have been facilitated and these projects have been followed by many public debates. Debates have focused on issues like: the death of the public sector ethos; PPP is driven by political motive to control public spending rather than delivering better public services; PPP projects actually cost more than conventionally procured assets; and many others. The catalyst to the debates has primarily originated from half-baked responses coming from infrastructure ministries/departments. This paper reports on a case study that was carried out in one of the infrastructure departments involved in PPP initiatives. The focus is on finding out if the department has an acceptable level of project management maturity to manage the complex processes of PPPs. It is found that the maturity of the department is at Ad Hoc/Standardised (level one) of maturity ladder. Recommendations are made for a broad program of reform for the entire project management process, ranging from revising its organisational structure to cultural change.

Keywords: public private partnership, project management competence, infrastructure department, public sector, South Africa.

INTRODUCTION

Countries worldwide daily confront the glaring global infrastructure deficit. Evidence of the sizeable and burgeoning disparity between actual infrastructure needs and the resources that governments have historically invested in attempting to meet those needs is universal: congested roads; antiquated bridges in need of repair; poorly maintained transit systems and recreational facilities; and hospitals, schools, and waste treatment facilities all in varying stages of deterioration and urgently in need of restoration (Eggers and Startup, 2007:1). These problems in turn impose huge costs on society, from lower productivity to reduced competitiveness to an increased number of industrial accidents.

Daniel and Dornan (2007) report on the lack of dedicated public funding sources for infrastructure maintenance and development, and the burdens placed on current infrastructure by a growing global economy in Western Europe. The operational outlay of the public administration and the cost of supplied services to be provided

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tend to be funded primarily by various forms of taxation (Forster, Veekman, and Schuurman, 2005), so public authorities therefore need to demonstrate efficient and effective deployment of public funds for maximum social benefits.

It is against the backdrop of these challenges and problems that governments and public authorities are under pressure to deliver projects on time, within budget and meeting citizens' expectations, while ensuring high quality standards are realised. In order to meet these project parameters, the public authorities require sound knowledge of the design and delivery process and proficiency in contracting options and procurement strategies through which their requirements are articulated and realised.

Baranskaya (2007) argues that public administration departments are Project-oriented branches of the economy. These are referred to as project-oriented organisations (POO). According to Forster, Veekman and Schuurman (2005), governments and public sector authorities are therefore under pressure to deliver projects on time, within budgets, meeting citizens' expectations, and with high quality standards.

Governments and public sector authorities worldwide have increasingly turned to the private sector to provide infrastructure services in energy and power, communication, transport and water sectors that were once delivered exclusively by the public sector. Eggers and Startup (2007:10) argue that these public-private partnerships (PPPs) have generally proven to be an effective infrastructure delivery tool used by most governments to close the infrastructure gap, but a number of projects nevertheless have failed to live up to their advance billing. Whilst there has been an increase in the number of public-private partnerships over the past five years in South Africa, the question as to whether these partnerships have been successful has been posed from several quarters and needs to be addressed (Shuping and Kabane, 2007:151). This paper provides some insight into this question.

The primary objective of this paper is based on a bigger study by Rwelamila and Phungula (2009). It reports on the reviews and analysis of organisational project management maturity of one randomly selected South African Government's Public Administration Department (SAGPAD) involved in PPP projects. The SAGPAD under review, which for purposes of confidentiality (a requirement of the entity's authorities) was given a pseudonym name: "The Agency" (TA), is involved in PPP activities running across the country (covering the three tiers of the public sector— local authority, provincial and national). The purpose of the case study was to determine the levels of organisational project management maturity of TA.

Research question and proposition

To remain focused on the research theme, a research problem question and proposition were formulated:

- Research problem question: What is the degree of organisational project management maturity of the SAGPADs involved in PPP projects?
- Research proposition: The level of organisational project management maturity of the SAGPAD involved in PPP projects has moved to the second level (i.e. planned/ measure stage) of progressive stages on the maturity ladder.

BACKGROUND OVERVIEW OF 'THE AGENCY' (TA)

The Agency (TA) is one of the sixteen national South African Government's Administration Departments involved in PPP projects and is tasked to pursue certain

national government strategic initiatives and objectives. Many of TA's operating processes and services are mandated by state law.

TA is evolving from delivering its services in the usual operational style to running its services in a project oriented organisational style. TA is currently running different multi-million rand projects or programs, eleven of which have been ring fenced as projects of strategic national importance. The profile of The Agency's current projects is given elsewhere (Rwelamila and Phungula 2009).

PPPS PROJECT MANAGEMENT - THEORY AND PRACTICE

Governments worldwide are under pressure to deliver projects on time, within quality, budget, utility requirements and meeting citizen's expectations, while ensuring that sustainable infrastructure and services are realised. In order to meet these project parameters, the public authorities require sound knowledge of the design and delivery process and proficiency in contracting options and procurement strategies through which their requirements are articulated and realised.

Business techniques adopted by the public sector today, according to Baranskaya (2007) are opposite to those techniques adopted in the past, when they tended to apply only to governmental tools. Today governments adopt not only tools and techniques, but also the spheres of the project management implementation. Nowadays in the governmental sphere there is an apparent tendency to outsource different functions and project management plays a great role in this area (Baranskaya, 2007). There are four main groups of relations through which project management is implemented in public administration and they are categorised into the following spheres: Changes in different spheres of life; Changes in the organisational structure of governmental bodies; Public Private Partnership; and Project-oriented branches of economy. This study focuses on the last two spheres of relations through which public administration implements project management principles.

Public Private Partnerships - theory and practice

Public-private partnerships (PPPs) in the delivery of public services have become a phenomenon which is spreading the globe and generating great interest. PPPs combine the best of both worlds: the private sector with its resources, management skills and technology; and the public sector with its regulatory actions and protection of the public interest. This balanced approach is especially welcome in the delivery of public services which touch on every human being's basic needs (United Nations Economic Commission for Europe, 2008).

However, there is no widely agreed, single definition or model of a PPP. According to Price Waterhouse Coopers (2002), a PPP may be defined as an:

... "arrangement between government (or other public sector body) and a private sector party, resulting in the private sector party providing infrastructure and/or services that are traditionally delivered by the public sector. A key element of a PPP is a transfer of risk from the public partner to the private sector partner".

The emphasis from this definition is that, with a PPP the public and private sectors share responsibility for the delivery of the project and/or its services (Daniel and Dornan, 2007).

It is important to indicate at this juncture that what has been covered above is neither meant to cover a detailed literature on the subject of PPP. The following three excellent sources should be helpful reading: Stainback (2000) on public/private

finance and development methodology; the British Columbia Ministry of Municipal Affairs (1999), on PPP guidelines for local government; and finally, Sagalyn (1996) on meshing public and private roles in the development process.

The spectrum of PPPs used in South Africa are as shown in Figure 1.

Figure 1: High-level overview of PPP models in South Africa. Source: Shaw (2006:2)
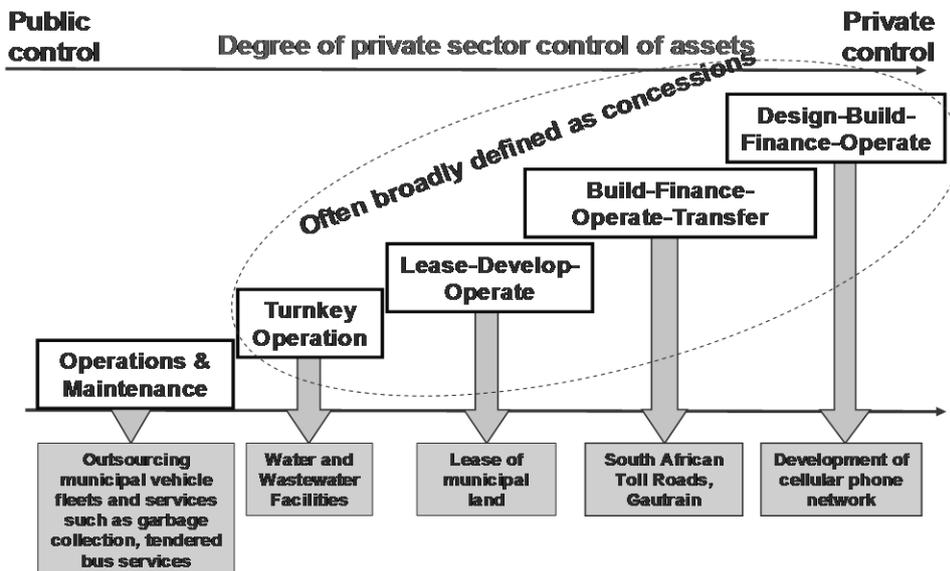
POO and project management maturity - theory and practice

Many businesses are recognising the power of a project based ('projectised') approach, and are implementing project management as a core competence (Hillson, 2003). Many organisations are finding it necessary to implement better project management practices, and this realisation often comes as a result of failed projects Graham and Englund (2004). The finite characteristic of projects stands in sharp contrast to processes, or operations, which are permanent or semi-permanent functional work to repetitively produce the same product or service. In practice, the management of these two systems is often found to be quite different, and as such requires the development of distinct technical skills and the adoption of separate management philosophy (PMI 2003). The primary challenge of project management is to achieve all of the project goals and objectives while adhering to classic project constraints—usually scope, quality, time and budget.

Graham and Englund (2004), bring to the fore, the concept of 'strategic emphasis on projects'. They uphold that developing cooperation requires upper management to take a systems approach which means that the organisation should look at projects as a system of interrelated activities that combine to achieve a common goal. This common goal is usually the overall strategy of the organisation. Anderson and Jessen (2003) deal with the concept of Project Management (PM) maturity as a measure of an organisation character to deal with projects. Cooke-Davies (2002), Jugdev and Thomas (2002), and Ibbs and Kwak (2000) support this argument.

The three models that have received the greatest attention in the literature so far have been the Berkeley PM Process Maturity Model (PM)2 (Ibbs and Kwak, 2000), PM Solutions Project Management Maturity Model (Pennypacker and Grant, 2003); and Organisational Portfolio, Program, and Project Management (OPM3) - Maturity

Model - a standard developed under the stewardship of Project Management Institute (PMI 2003). Each of these assesses process maturity derived from PMI (2004).

RESEARCH METHOD AND INSTRUMENT FOR THE STUDY

Methods used: review of theory and practice of PPPs, application of project management in public sector institutions, and Organisational Project Management Maturity; self-administered assessment survey using OPM3 model (Quantitative model); and the Project Management Maturity Matrix Interviews using open-ended questionnaires, and document evaluations (Qualitative model).

The case study methodology was preferred because the phenomenon being researched (organisational capability/or maturity in PM) is too complex and could not be adequately researched using other methods (Yin's 1994).

Data collection strategies

The OPM3 maturity model was used as a self-assessment survey tool for collecting and capturing information from respondents. The rating scale for OPM3 comprises four levels (Standardise, Measure, Control and Continuously Improve). The OPM3 Self-assessment is a series of 151 Yes or No questions falling into three categories: project; program; and portfolio management. The OPM3 Self-Assessment survey was conducted only at the Head office level of TA. Two key people completed the 'Self-Assessment' survey questionnaire. These were the Executive Manager responsible for Project Management Office, and her assistant. 151 answers were loaded in the OPM3 Self-Assessment survey tool in order to get the 'OPM3 Self- Assessment reports'.

The Project Management Maturity Matrix was used to supplement the OPM3. This model was used in order to identify the stages which an organisation has reached in the journey towards improving project management.

Interviews: In order to conduct meaningful and effective interviews an open-ended interview questionnaire was used. The original 'Maturity Matrix' questionnaire contains a total of 161 questions. The questionnaire was modified by reducing the number of questions to 124.

Six projects out of eleven projects were randomly selected as the sample group for the assessment. These projects represented various scopes of works, stages of life-cycle and contract models. A key to the assessment was to interview the project team members for each project. The interview questions were aimed at evaluating project management capabilities and maturity level.

Document reviews: Extensive assessment of secondary sources was carried out and it included: verification of project process documentation; policy statements and procedures; and all project management related documents including those specifically for PPP projects.

RESEARCH RESULTS

OPM3 self assessment survey results

The purpose of applying the OPM3 Self-assessment survey was to assess TA's current state of maturity in organisational project management in relation to the Best Practices that comprise OPM3 model. The results of the OPM3 assisted in informing the organisation as to where it stands on a general continuum of organisational project management maturity.

The OPM3 Self-assessment survey further produced a high-level or "executive" view-resulting report containing a list of Best Practices which the organisation currently appears to demonstrate or not. The report containing these Best Practices was produced by the OPM3 Self-assessment survey tool but due to lack of space and brevity, a summary of results is produced here. The summary report of Best Practices which TA appears to have achieved based upon the answers provided by the respondents to the OPM3 Self –Assessment survey is also produced.

TAs overall position on OPM3 continuum of best practices:

TA's overall organisational project management maturity on an OPM3 continuum was found to be 31%. 56% on the management of its projects; 23% on the management of its programs, and 15% on the management of its portfolios.

TA's position on OPM3 Continuum project/ program/portfolio (PPP) - domains

Scores achieved: projects = 56 %, programs = 23% and portfolio = 15 %.

Table 1: TAs position on OPM3 continuum PPP/SCMI scores

OPM3 best practice dimensions – projects:	PPP/SCMI scores
project standardised:	57%
project measure:	60%
project control:	48%
project improve:	56%
OPM3 best practice dimensions – programs:	
program standardise:	42%
program measure:	22%
program control:	12%
and program improve:	12%
OPM3 best practice dimensions – portfolio:	
portfolio standardise:	28%
portfolio measure:	7%
portfolio control:	0%
portfolio improve:	9%

TA achieved at each stage of process improvement the following scores: 40% of best practices at standardise level; 30% of best practices at measure level; 21% of best practices at control level, and 24% of best practices at continuously improve level.

TA's position on OPM3 continuum standardise/measure/control/improve (process improvement stages): Scores achieved: Standardise = 40 %, Measure = 30 % and Improve = 15 %. TA's position on OPM3 continuum PPP/SCMI-projects/programs/portfolio: "TA''s scores on OPM3 continuum PPP/SCMI are shown in Table 1.

Open-ended structured interview results

Based on the open-ended structured interviews and documentation review, the authors The Agency's project management maturity in relation to the seven key competences and the nine sub-components of project management body of knowledge (PMBOK)

areas (SEI 2002) was assessed. Both the seven key project management maturity competencies and the nine sub-components were weighted by their criticality to an effective and mature project-driven organisation.

The average scores for each of the seven maturity dimensions (0 – 5) are shown in Table 2.

Table 2: The average scores for each of the seven maturity dimensions (0-5)

PM maturity dimensions	Scores
A. Knowledge Management	1.20
B. Process Standards, Methods and Procedures:	1.92
B1. Integration Management	2.40
B2. Scope Management	3.60
B3. Time Management	1.65
B4. Cost Management	1.60
B5. Communications Management	2.54
B6. Risk Management	1.27
B7. Quality Management	1.00
B8. HR Management	1.85
B9. Procurement Management	1.37
C. Technologies	1.00
D. Decision Support	2.18
E. Portfolio and Resource Management	2.95
F. Professional Development	1.55
G. Continuous Process Improvement	1.13

SYNTHESIS AND ANALYSIS OF RESULTS

OPM3 self-assessment survey results

In order to interpret and analyse the results produced by the OPM3 Self-Assessment survey model, the graphs and diagrams data generated were summarised. From the analysis, it could be concluded the TA is at Ad-Hoc/Standardise stage of maturity (Level 1). This, strongly suggest that there is a lot of project management improvement that still need to be done in order for TA to move to the second level of process maturity ladder. There are certain capabilities and best practices that are needed at Level 2 of maturity but which TA does not display or demonstrate. This deficiency, demands TA to work on identifying and improving the lacking capabilities and best practices so that it comfortably climb the maturity ladder to Level 2 (Measure/ Planned) of process maturity.

The conclusion in this regard is further justified by the fact that TA scored 31% of Best Practices on the OPM3 continuum of organisational project management maturity. This level of maturity falls below the 50% mark on the organisational project management maturity, and has areas which need improvement in all three domains and all four stages of process improvement.

Open-ended structured interview results

In order to adequately examine, analyse, and interpret the data, the project management maturity levels according to each of the seven project management knowledge, nine sub-components, were investigated and further broken down by projects, and functional areas. The open-ended interview assessment evaluated TA 's project management maturity based on seven project management maturity components or dimensions of a mature POO.

The numeric values assigned to each response to the interview question were 1 to 5. Both the seven key project management maturity competencies and the nine sub-components were weighted by their criticality to an effective and mature POO, consistent with maturity model analysis, the results were evaluated. The numerical values assigned to each given response to the interview questions were added up per knowledge area and the total was averaged. The averaged total scores of all the seven key knowledge areas were outlined and then mapped along the Project Management Maturity Matrix.

By interpreting maturity levels characteristics, it was possible to assign appropriate numerical values to answers and was able to link the findings to the five quadrants where each quadrant represented a maturity level. Based on the mapping exercise, the following percentage scores were realised:

Knowledge management (24%) - the possible reason for this low score is the lack of technical method of storing project records and therefore impossible to conduct search or retrieve relevant historical information on projects; Process standards, methods and procedures (38.4%) - this strongly indicates that the organisation as a whole does not have sufficient project management capabilities required for the effective application of all the nine sub-components; Integration management (48%) –the possible reason for this low rating is partly because there are no overall project management plans that are consistently developed or used. This is a serious gap because there is no formal way to coordinate various project activities and requirements; Project cost management (32%) - one possible interpretation for this low maturity result is that

this area may not be perceived as important in the government sector as other project management knowledge areas.

Project scope management (72%) - one possible explanation for this excellent performance is because TA through its Steering Committee has been able to control and maintain initial project plans; Project quality management (20%) - the reason for such low rating is because there is no established project quality management strategy framework in place; Project human resource management (37%) - : there are strong indications to suggest that this low level of maturity is attributed to the obvious lack of qualified project management professionals. Accidental project managers seem to dominate the PM staff component; Project communications management (50.1%) - the reason for this score is partly because Internal cross team communication occurs only through the Steering Committee meetings. People who are not part of these meetings do not get the information at all; Project risk management (25.4%) - this low maturity may be attributed to the fact that there is no consistent risk management strategy; Project procurement management (27.4%) - this clearly indicates that procurement management is not yet a mature and well established process; Technologies (20%) - the reason for such low performance in this knowledge area is because there are no technological project management tools in use by TA (PMIS is non-existent); Decision support (43.6%) - clear executive management support and

involvement by way of regular Steering Committee meetings where resource pre-planning and review takes place could be the reason for a slightly better performance in this knowledge area; Portfolio and resource management (59%) - the reason for this performance could be because there are inherent differences between the project plans, which are used primarily by TA to manage project schedules and the resource plans, which are needed to manage organisation resources;

Professional development (31%) - the reason for such poor performance could be because TA has shown little commitment to developing project management skills and decisions about assignment of individuals to some projects, particularly as project managers, are based more on availability than on required skills; and continuous process improvement (22.6%) - this low maturity could be caused by the fact that project management process improvement is not an established practice at TA.

It is interesting to note that the results produced by open-ended interviews are similar to those produced by the Self-Assessment survey. Both methods gave results to the effect that TA is at level one (Ad Hoc/Standardise) stage of project management process maturity. However, in this study the quantitative assessment was considered a support tool for making an overall assessment.

CONCLUSIONS

The maturity of the TA is at level one. The research proposition is proven to be negative that the maturity of TA hasn't moved beyond the threshold maturity level (Level 1). TA is still at 'Ad Hoc/Standardised' (Level 1) for reasons presented in the paper.

Communication processes of project information, particularly within TA are unreliable and ineffective on an Agency wide scale. There is a shortage of skilled project managers to carry out formal project management processes.

There are strong indications to suggest that TA does not possess sufficient skills and abilities to manage its projects as a POO. One of the fundamental deficiency is that TA's organisational structure and culture, do not provide focus for project management. As a result, the processes used by project leaders and their team members for planning and executing projects are inconsistent.

It is very difficult to make proactive and informed resource allocation decisions due to lack of integrated resource and assignment tracking system. Hence, there is no attention to Portfolio Management and Prioritisation.

The Agency's senior management need to adopt and apply all the recommended environmental components that foster successful projects. Graham and Englund's (2004) ten components of an environment for successful projects are relevant here. These components will not stay together without the exercise and display of authenticity and integrity by the upper management.

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