

THE ROLES THAT PROJECT SPONSORS PLAY AT STAGE GATES OF A PROJECT LIFE CYCLE MODEL: A CASE STUDY OF A WATER UTILITY IN SOUTH AFRICA

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ABSTRACT

Project sponsors play significant roles at the stage gates of project life cycle models (PLCMs). However, research on the roles that sponsors play at stage gates, and the attributes required of the sponsor, are sparse. This study investigated the roles played by government and municipal sponsors at the PLCM stage gates of a water utility, and identified the attributes that the sponsor should have as well as the challenges they face. A case study approach was employed, and semi-structured interviews were conducted with relevant stakeholders. The findings could assist the senior management of water utilities, national government departments, and municipalities when appointing suitable project sponsors.

OPSOMMING

Projekborge speel belangrike rolle by die fase stadium hekke van 'n projeklewensiklus model. Die rol van projekborge by hierdie hekke, en die kenmerke wat vereis word van die borg, is egter nog selde bestudeer. Hierdie studie het die rol van staatsdiens en munisipale borge by hekke tussen die fases van 'n lewensiklus model van 'n water-nutsorganisasie ondersoek, en kenmerke waarvoor die borge moet beskik asook uitdagings wat hulle die hoof moet bied, geïdentifiseer. 'n Gevallestudie benadering is gevolg, en semi-gestruktureerde onderhoude is met relevante belanghebbendes gevoer. Die bevindings kan die senior bestuur van water-nutsorganisasies, staatsdepartemente, en munisipaliteite help om geskikte projekborge aan te stel.

1. INTRODUCTION

Project life cycles are fundamental to project management, since they offer a systemic and structured approach [1]. Many organisations have adopted project management methodologies to initiate, conceptualise, and implement projects to ensure that the right projects are selected and executed in order to derive the value promised in the business cases [2]. Such methodologies are based on a standardised project life cycle that consists of project phases, each with a specific purpose. A project sponsor (client representative) who represents different interests at specific stage gates of a given project is part of the many stakeholders who are involved during the project life cycle.

The roles of the sponsor during the project life cycle are extensively reviewed in the literature. For instance, Kloppenborg, Manolis and Tesch [3] examined the role of the sponsor during the initiation stage of the project life cycle, while James [4] emphasised the methods that project managers can use for the effective participation of the sponsor in a project environment. Helm and Remington [5] and Crawford, Cooke-Davies, Hobbs, Labuschagne, Remington and Chen [6] concentrated on the role and responsibilities of the sponsor in the project governance framework of an organisation. Louw, Steyn, Wium and Gevers [7] investigated the leadership style and attributes of the executive sponsor of megaprojects, while Hall, Holt and Purchase [8] focused on the role of the sponsor in the general project management of a public entity. Little research has been documented on the roles and attributes of the sponsors in the project life cycle of public utilities.

The objective of this study is to investigate the roles that project sponsors play at the stage gates of the project life cycle model (PLCM) of a water utility, and the attributes that the sponsor should possess to make decisions at the stage gates. The PLCM of the water utility is applied across different disciplines in the water utility for internally funded projects; and, through service level agreements, the water facility is appointed by municipalities and government departments to implement infrastructure-related projects on their behalf.

Two primary sponsors are involved: the municipal sponsor and the sponsor from a government department. The government sponsor is a custodian of water resources, and their primary responsibility is the formulation and implementation of policy governing the water sector [9]. This responsibility is exercised through the implementation of water and sanitation-related programmes using different implementing models - for example, appointing water utilities to facilitate the execution of these programmes.

The municipal sponsor, on the other hand, is responsible for the provision of services such as electricity, water and sanitation, roads, and stormwater management in local communities. Occasionally, owing to the lack of capacity to implement projects related to these services, municipal sponsors opt to appoint other government institutions such as the water utility to assist with the execution of these programmes [10].

The research questions for this study are:

- RQ1: What are the roles of the project sponsors at each gate of the PLCM as perceived by other stakeholders involved in the project?
- RQ2: What difficulties do the sponsors experience in ensuring that the value promised in the business case is achieved?
- RQ3: How do the attributes perceived by the respondents differ from the ranking by Louw *et al.* [7] in their investigation of the sponsor's attributes in megaprojects?

2. LITERATURE REVIEW

2.1. Project management methodology

The literature on project management methodologies and their application has presented organisations with procedures to manage projects coherently and systematically [2]. A methodology provides a set of methods, procedures, techniques, templates, and best practices across the project life cycle [2, 11]. A typical methodology defines each of the phases in the project life cycle: the tasks and deliverables, the stakeholders, and their responsibilities [2, 12]. Kerzner [13] supports Nelson, Ghods and Nelson's [14] assertion that a methodology increases the likelihood of the successful delivery of a project, and improves results by enhancing clarity, control, and processes.

The water utility adopted a linear PLCM by using the Project Management Institute's methodology [12] and by applying it according to the Project Management Body of Knowledge (PMBOK) phases from project initiation to close-out.

2.2. Project life cycle

The life cycle acts as a management tool in allocating resources, integrating activities, supporting decision-making, and mitigating risk in projects. APM [1] defines a life cycle as a methodology consisting of a series of stages that are needed to transform ideas into reality in an organised and structured way; and the ISO [15] defines a project life cycle as a set of stages from the start to the end of the project. Specific philosophies and project life cycle approaches are based on the type of project to be undertaken by a particular organisation [1]. Therefore, project sponsors must understand the life cycle models adopted by their organisation in order to execute projects better and so ensure that value is realised according to the organisation's strategic imperatives [1].

2.3. Roles and benefits of PLCM stage gates

The role and responsibilities of stakeholders involved in the stage-gate decision of a project are typically predefined by the organisation, and the criteria to be used to assess the project and to ‘go’ or ‘kill’ or ‘give the amber light’ are predetermined well ahead [16]. The objective of the appraisal in the PLCM stage gates is to assess whether a project has met all of the prescribed criteria. If all of the criteria have been met, the project can proceed (‘go’) to the next stage. If not, it could be terminated (‘killed’) or be frozen until certain tasks are completed before a gate decision can be made by the organisation’s appraisal team [16]. Cooper, Edgett and Kleinschmidt [17] argue that, if the stage-gate approach is applied appropriately, it may increase shareholder value and minimise the risk of spending time and money on projects that bring insufficient value to the organisation. Depending on the type of project under consideration by the organisation, the stakeholders involved at the stage gates may alternate during the project’s life cycle, as is the case with projects implemented by the water utility.

2.4. Overview of the project sponsors

The PMI [12] defines a sponsor as a person or group who provide financial resources and take a fundamental risk in a project, while Hall *et al.* [8] describe a sponsor as a representative of the public client and of the client’s interest in the project. Thus the municipal and government sponsors are defined in the context where an implementing agent such as the water utility is appointed to execute projects on their behalf.

Occasionally, owing to a lack of capacity and limited project management expertise to implement infrastructure-related projects, municipal and government sponsors appoint external service providers such as consultants and contractors to assist with project implementation [10]. However, the appointed service providers require constant monitoring from the project’s initiation to the project close-out phases of the PLCM [18]. As mentioned earlier, sponsors then enter into a contractual arrangement for a defined period through service-level agreements with the implementing agents, such as the water utilities, to implement these projects through the utilities’ adopted project management methodologies.

2.5. The role of the project sponsor in a PLCM

The sponsor’s role is limited not only to ensuring that the project delivers the outcome of the business case [1, 4, 7, 12, 17, 19, 20, 21, 22], but also to making sure that informed decisions are made at the stage gates, as described in Table 1.

Table 1: Roles of a sponsor

Description of the role of a sponsor	References
Key in delivering the value of the project.	[1, 4, 7, 20, 21, 22, 23, 24]
Acts as a leader to guide the project team and stakeholders. He/she takes decisive action to achieve the objectives of the business case.	[7, 21, 25]
Plays a pivotal role in the success or failure of a project. This includes being a ‘seller’ of the project to the stakeholders, coach, and mentor of the project manager, motivating and protecting the project team from any unnecessary bureaucracy that may destruct the project team.	[6, 25, 26, 27, 28]
Ensures that the project is consistent with the business’s strategic objectives.	[22, 29]
Alignment of project outcome with the business case.	[19, 30]
Strengthens the stakeholder’s relationship at a macro level, and ensures that individual stakeholders’ interests are considered in the stage gates of the PLCM.	[22, 28]
Provides support to the project team to drive the execution of the project through motivation.	[5, 6]
Advocates for the generation of knowledge and learning.	[5,19]

Table 1: Roles of a sponsor (cont.)

Description of the role of a sponsor	References
Provides clarity on the vision and direction of the project team and on the responsibility of the project team.	[1, 25, 31, 32, 33]
Acts as a link between the project team and the senior management of the organisation	[6, 25, 29]

Clearly defined roles and responsibilities of the sponsor in different stages of the PLCM will mitigate biased decision-making at the stage gates as a result of the sponsor's lack of either knowledge or a skill set. These responsibilities are directly linked to the attributes that the sponsor must have to make informed decisions in the PLCM stage gates.

2.6. Attributes of the project sponsor

The sponsor must ensure that decisions made at the stage gates adhere strictly to the PLCM. As summarised in Table 2, the personal attributes of the sponsor are central to the roles that they play in the decision-making process during the project life cycle.

Table 2: Attributes of sponsor

Description of the sponsor's attributes	References
Should possess a mix of skills to direct the project team, such as leadership, behavioural skills, and management of complex projects.	[1, 5, 6, 7, 19, 34, 35]
A better comprehension of the development of the business cases and sound project management principles and skills.	[19, 34, 36]
Have deep knowledge of the business and its market.	[6, 19]
Understand business culture, internal politics, and bureaucracies.	[6, 31, 35]
Collaborate with stakeholders, specifically project Managers, to ensure the delivery of project objectives.	[25, 34]
An environment of open communication based on trust with project managers.	[19, 25]
Ability to engage with and communicate divergent matters at different levels of the business.	[5, 6, 34, 35]
Should be credible and have a level of seniority in the organisation, and have positional and personal power in the business.	[1, 5, 6]
Should be a good negotiator and be decisive in resolving conflicts.	[19, 25, 36]
Should have the capability to lead for results and achieve project success by directing the project team.	[25, 34]
Should clearly understand the role of a project sponsor, and can explain the need to create an alignment between the project and the business strategy.	[31, 37]

Often a sponsor does not have all of the attributes that are required to make decisions at each stage gate of the project [4, 7]. Hypothetically, that statement also holds for municipal and government sponsors.

The attributes of sponsors in the water utility are therefore critical in the stage gates of the PLCM, based on the types of stakeholder involved in each gate. For instance, community consultation and engagement during the initiation and execution phases of the project play a fundamental role in the success or failure of the project; and therefore the sponsor should be able to:

- communicate and engage with divergent issues across all levels of the business [5, 6, 34, 35];
- collaborate with all stakeholders to strengthen the relationship [25, 34]; and

- ensure that the interests of the stakeholders involved in the project are considered in the PLCM stage gates [22, 28].

2.7. Project life cycle model of the water utility

The water utility adopted a linear project life cycle model, using the Project Management Institute's (PMI) methodology, with initiation, planning, execution, and close-out phases [12], as depicted in Figure 1. The ability and capability of the municipal and government sponsors to make informed decisions at each stage gate of the PLCM of the water utility influenced the realisation of the project's value.

The attributes possessed by the sponsor to assess whether the project should proceed (green light), proceed with caution (amber light), terminate (red light), or freeze (red light) until certain activities are completed before a gate decision can be made by the appraisal team in an organisation [16].

The objective of the *project initiation phase* in the PLCM is to ensure that the needs analysis of the business is informed by the organisation's strategic objectives; and the *project planning phase* is to implement the outcome of the feasibility study/business case after the signing off by the stakeholders. In the *project execution phase*, the procurement process is initiated through the preparation of specification documents for approval by the relevant supply chain committees and the award of contracts for the physical execution and monitoring of the project by the sponsor. The purpose of the *project close-out phase* is to ensure that the project delivers according to the business case - i.e., the deliverables of the projects are evaluated against the final product. This phase is the last gate, when the project is handed over to operations.

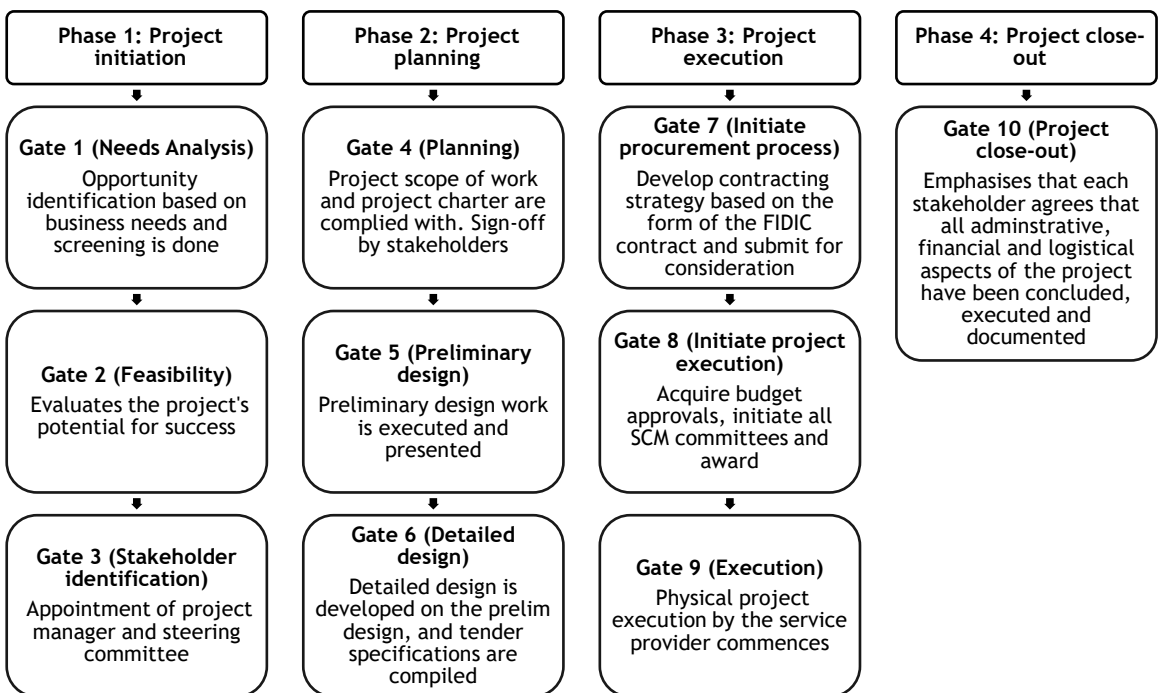


Figure 1: PLCM of the water utility

3. RESEARCH METHOD AND APPROACH

3.1. Research strategy

Based on the research design methods reviewed by Mayring [38] and Saunders, Lewis and Thornhill [39] - i.e., exploratory, descriptive, evaluative, explanatory, descriptive, and combined - the research adopted the exploratory qualitative study approach in the form of a case study of the project life cycle of a water utility in South Africa.

3.2. Data collection

A total of twelve participants were interviewed. The participants' selection was based on their knowledge and experience in the field of project management, project sponsorship, and public utilities implementing agent agreement arrangements.

The data collection for the study was aided by employing semi-structured interviews with the 12 participants; five of them were project sponsors and seven were from the water utility.

The participants interviewed from the water utility were the programme manager, project manager, project design office manager, finance portfolio analyst, and three members of the supply chain committees. All of the interviews were carried out using the online virtual platform (Microsoft Teams).

For ease of reference during the interviews, the researcher shared the PLCM of the water utility via Microsoft Teams to enable the participants to engage meaningfully when responding to the interview questions. The participants were also emailed a list of 37 attributes of the project sponsor according to the findings of Louw *et al.* [7], and were asked to indicate the most important attributes.

4. RESULTS AND DISCUSSION

The findings of the study suggested that sponsors are generally supposed to play an active role in the stage gates of the water utility's PLCM, particularly in the project initiation, execution, and close-out phases. However, in some stage gates, the role of the sponsors was found to be passive as a result of poor stakeholder and community engagement and insufficient project monitoring, which inevitably led to problems that hindered the achievement of the business cases' deliverables.

The results pointed to the following findings, based on the research questions:

RQ 1: What are the roles of the project sponsors at each gate of the PLCM as perceived by other stakeholders involved in the project?

The findings of the research show that the sponsors generally play an active role in the stage gates of the water utility's PLCM, particularly during the project initiation phase. In the initiation phase, the sponsor conducts the needs analysis, the feasibility studies and business case, the stakeholder mapping, and consultations. These findings correlate with the literature on the significant role of the sponsor during project initiation [3].

The results of the study also pointed to the active role of the sponsor during the project needs analysis and feasibility study gates of the project life cycle. The findings confirm the role of the sponsor as a seller and the owner of the business case to the stakeholders, as advocated by Bucero and Englund [26]. However, the role of the sponsor in stakeholder consultation and engagement was perceived by the stakeholders to be passive. The need for the sponsor to be actively involved during this stage of the project life cycle confirms the role of the sponsor as a negotiator who will eliminate obstacles, resolve conflicts, and act as a link with senior management and other stakeholders to communicate about the various issues of the project [26, 40].

The passive role of both sponsors (municipal and government) during stakeholder consultation is linked to the assumptions that (i) since the water utility is appointed as an implementing agent, the sponsors should withdraw at these stage gates and the water utility should take the leading role; and that (ii) the sponsors view stakeholder engagement and consultation as a one-off event during the needs analysis stage gate rather than as an ongoing dialogue.

The latter argument is evident during the project execution phase when conflicts arise between the contractors and local community members. The sponsors' attitude is that the water utility should resolve the conflicts, even though the issues of concern are based on the initial promises made during the project initiation phase - before the involvement of the water utility.

The project planning phase is one of the critical phases in the project life cycle, since it is usually kick-started after the project charter has been signed off by all of the stakeholders. Fundamentally, the role of

the sponsor, as elaborated by the findings at this phase, is to minimise the project design risks of developing a project that is misaligned with the imperatives of the business case.

The results revealed the active role of the sponsors during the design stage gates of the PLCM; that is, both the municipal and the government sponsors emphasised their active role to ensure that the developed product is consistent with the deliverables of the business case. However, members of the water utility (the procurement committee members, the finance portfolio analyst, and the design office manager) argued that the PLCM of the water utility was to be used for the project execution phase, and thus the sponsors should only monitor the project progress and not be involved in the approval of the project design stage gates.

The above findings are based solely on the project risk management component during the design stage gates and on how the stakeholders, both sponsors, and the water utility were going to mitigate risks effectively during the project life cycle. Vogwell [41] argues that an ineffective risk management plan could affect the delivery of value for the project.

This diversity of views among the stakeholders is symptomatic of a fragmentation of the roles and responsibilities in the service level agreement between the sponsors and the implementing agent, which could lead to an ineffective risk management plan for the project and compromise the outcome of the business case.

During the project execution phase, the role of the sponsor (as perceived by the stakeholders) was found to be passive, particularly during the physical implementation of the project. The inactive role of the sponsor during this phase was attributed to the lack of capacity owing to a high workload and other responsibilities that led to poor project monitoring and evaluation. Bucero and Englund [26] state that the presence of the sponsor as a motivator during milestone meetings is key in reminding the project team about the importance of the project's mission. Consequently, the absence of the sponsor because of capacity constraints could result in poor communication and information-sharing with senior management and other stakeholders, which could lead to a longer turnaround time in resolving project conflicts.

In contrast to the passive role of the sponsors during the execution phase, the implementing agent (the water utility) assumes the leading role, and only consults the sponsors on scope adjustment and the availability of funds. The consultative function and the advisory role displayed by the sponsors are viewed by the stakeholders as the sponsors providing leadership, motivation, and direction to the project team [21, 25]. Thus the sponsors play an active role as financial providers and show leadership as business case owners. The level of involvement (or lack thereof) by the sponsors is based on the fact that, at the principle and policy level, the sponsor is the owner of the project, and the water utility is viewed as an extended arm of government to assist with the project implementation and with contract management.

The project closeout phase signifies the finalisation of all of the completed project activities across all phases of the project. The findings from the study confirm the important role of the sponsor in the project close-out phase of the project life cycle, as noted by Fahri, Biesenthal, Pollack and Sankaran [42]. Although some lack of commitment on the part of the sponsor was noted, it contrasted with the findings of Kloppenborg and Tesch [40], who emphasised the sponsor's active role in reviewing the implementing agent's performance contract according to the project implementation plan.

The impact and value realisation of the project should be evaluated by the sponsor after this phase. Fundamentally it is the role of the sponsor to ensure that the business benefits of the project are achieved [42]. The study, in agreement with the literature, pointed out the most important roles of the sponsor during the project life cycle of the water utility as being:

- a financial provider [12, 24];
- a seller of the business case [25];
- acting as a link between the project and the senior management [6, 25, 29] of government and the water utility; and
- providing leadership to the project team [21, 25] for the implementation of all of the stage gates in order to achieve value.

However, the role of the sponsors in enabling knowledge generation across the project team [19, 34] was found to be lacking throughout the stage gates of the PLCM. This was based on the fact that the municipal

and government sponsors were primarily interested in the final product and less interested in learning and knowledge-sharing amongst the project team.

RQ 2: What difficulties do the sponsors experience in ensuring that the value promised in the business case is achieved?

The findings of the study revealed the primary difficulties that were experienced by the sponsors to achieve value, specifically during the project execution and close-out phases of the water utility's project life cycle model. These included:

- the lack of funding from the sponsor to complete the multi-year projects;
- project overruns because of a lengthy turnaround time in the stage gates approvals by the sponsor, possibly because of capacity constraints;
- political interference; and
- poor stakeholder consultation and engagements throughout the project life cycle phases.

These findings support earlier evidence on the factors contributing to the underperformance of the project and the value realisation of the project [43]. The sponsor is expected, among other things, to provide human resources [33] and financial capacity [24] for the projects, to strengthen stakeholder relationships, and to consult communities before and during the implementation of the project [22, 28].

The findings show different approaches to consulting with the community and local businesses. In other projects, a single community meeting is sufficient to introduce the project concept [40]. However, the findings of this study highlighted a need for ongoing engagement with different stakeholders before finalising the project concept and after the approval of the project charter throughout the implementation and close-out phases of the project life cycle. This analysis is supported by Hall *et al.* [8], who argue for constant stakeholder dialogue (rather than a once-off event) during the lifetime of the project. Effective consultations are necessary to establish a common understanding with stakeholders on project deliverables, processes, and budgets. These consultations can reduce community members' unrealistic expectations about the jobs that would be created by the projects and mitigate inappropriate sub-contracting demands by local business forums.

The finding about the unrealistic expectations of communities is indicative of the impact of high unemployment and poverty rates in South Africa. The project initiative in the community is viewed as an opportunity to earn income. Furthermore, political parties have promised communities employment and business opportunities through presidential proclamations and the local government's integrated development plan (IDP) processes. These sentiments regarding the impact of changes in the political landscape of public utilities are echoed by Hall and Holt [44].

When community and stakeholder expectations are not met, communities take their frustrations to project implementation sites through disruptive demonstrations, and even vandalising project equipment. This affects project implementations and timelines further, contributing to increases in project cost and overrun. Similar observations were reported in construction projects in other developing countries, such as Nigeria and Tanzania, that were struggling with high unemployment and poverty [45].

Poor stakeholder engagement and consultation were found to be linked to the sponsor's lack of capacity to monitor the project timeously and their intermittent attendance at project meetings. This was caused by the sponsor representative handling up to five or more projects - contrary to the international norm that a project manager should ideally handle only two or three projects at a time [46]. The water utility partially fulfilled the role of *the sponsor as a negotiator* to manage conflicts; but it was not sufficient, as it was found that conflicts took longer to be resolved and led to budget overruns and community disruptions [26].

RQ 3: How do the attributes perceived by the respondents differ from the ranking by Louw *et al.* [7] in their investigation of the sponsor's attributes in megaprojects?

Ranking of sponsor’s attributes

The participants ranked the 37 attributes listed by Louw et al. (2021). Figure 2 presents the top three attribute rankings in order of importance in each case - i.e., the most important, the second most important, and the third most important attributes.

The three attributes that were ranked most important by the respondents were the sponsor’s ability to (i) manage conflict, (ii) manage stakeholders’ expectations, and (iii) be politically astute. This ranking was based on the facts that the projects implemented by the water utility were not immune to political interference and that the sponsors’ understanding of the role would prevent unwarranted conflict with other stakeholders and with the senior management of the government departments and the water utility.

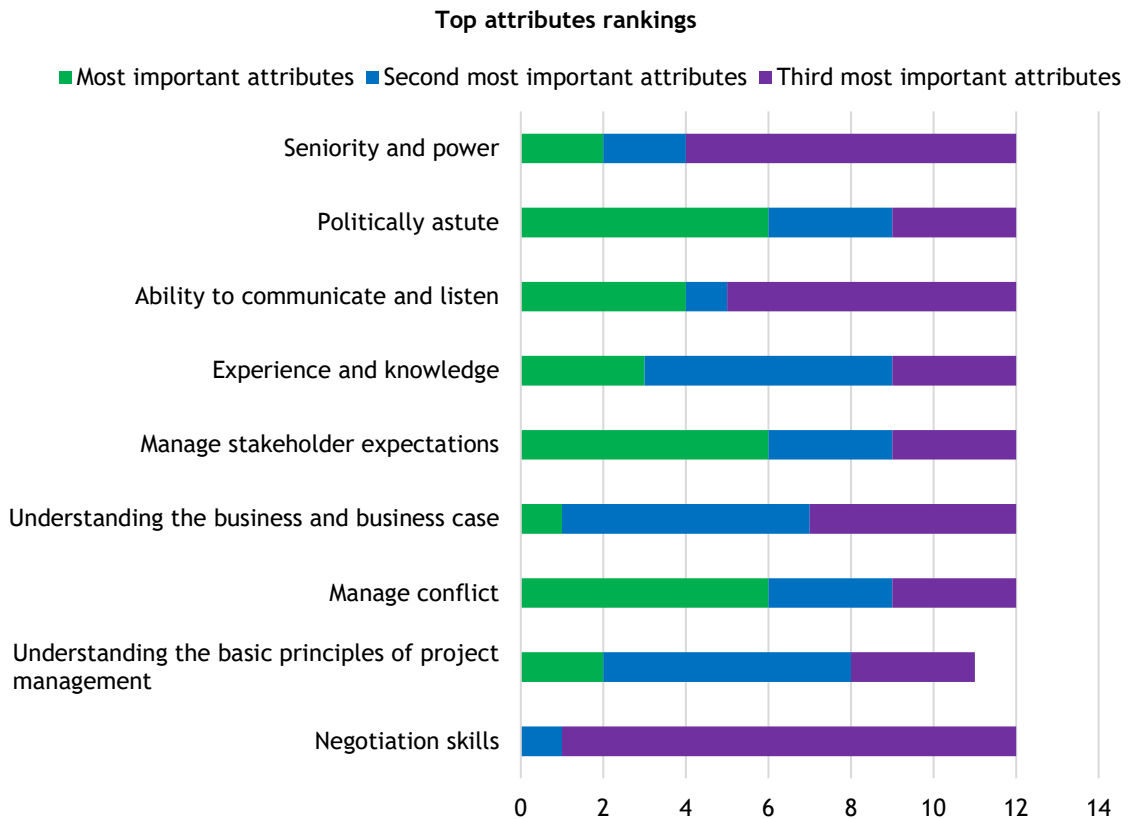


Figure 2: Attributes ranked by sponsors and the implementing agent

Attributes such as (i) understanding the business and business case, (ii) understanding the basic principles of project management, and (iii) the ability of the sponsor to communicate and listen were considered the second most important attributes for the sponsors to have throughout the PLCM, especially during the planning phase, since there would be intense consultations and engagements with stakeholders and business forums, as discussed in the earlier sections of this study.

Concerning the third most important attributes, the results showed that attributes such as (i) negotiation skills, (ii) the experience and knowledge of the sponsor, and (iii) the seniority and positional power of the sponsor were not regarded as key characteristics of the project sponsors in executing projects in the public utility. These results contrast with the attributes ranking by Louw *et al.* [7]; for instance, the positional power of the sponsor was ranked as essential in megaprojects. This contrast is discussed further in the next section.

Comparisons of attributes results with those in the findings of Louw et al. (2021)

Figure 3 illustrates the top eight essential attributes (separated by the borderline) needed by the project sponsors as ranked by Louw et al. [7] in public and private megaprojects.



Figure 3: comparisons of project sponsor attributes

Therefore, considering the top attributes in each of the studies, attributes such as (i) seniority and power, (ii) understanding the business case, (iii) the ability of the sponsor to communicate and listen, (iv) understanding the basic principles of project management, and (v) the sponsor’s objectivity and ability to challenge the project team were found to be in common with the attributes listed by Louw et al. [7].

Even though the attributes were shared, they differed in priority; for instance, seniority and power, the sponsor’s objectivity, and the ability to challenge the project were ranked the third most important attributes by the respondents, contrary to the highest ranking by Louw et al. [7]. In an organisation where the sponsor is described as a person or group, the sponsor’s positional power and seniority are critical [23]; hence its ranking by Louw et al. [7] as essential. However, in the context of this study’s definition of the sponsor as being an entity and the manager of a project who represents the clients’ (municipal and government sponsors) interests, this attribute is at the senior management level of the sponsors, and thus has little influence on the direction of the project.

Seniority and power in the water utility, government, and the municipality are also at the senior management level; this simply implies that the sponsor’s representative has very limited delegated authority to exert influence beyond their role, and that having these attributes would not be an impediment to discharging their duties in the project life cycle.

In contrast to the ranking by Louw et al. [7], the findings revealed that attributes such as being politically astute, managing conflicts, and managing stakeholder expectations were key, and were ranked as the most important in achieving project value. These attributes are at the centre of the ability of the sponsors and the implementing agent to understand changing political dynamics in order to manage potential conflicts caused by policy changes and to manage stakeholder expectations through the project life cycle. The

megaprojects investigated by Louw *et al.* [7] (predominantly petrochemical projects) were mostly subject to internal company politics and, to a much lesser extent, to public opinion. Stakeholder groups are normally represented by professionals.

Projects executed by the water utility, on the other hand, are executed by the government, where national political issues such as job creation and service delivery play a significant role. In the projects investigated by Louw *et al.* [7], local communities did not play any significant role, while in projects executed by the water utility, local communities (including large numbers of poor and unemployed people) have specific beliefs and expectations that result from the implicit and explicit promises made by politicians. These factors explain why being politically astute, managing conflict, and managing stakeholder expectations are more important attributes of project sponsors in the projects of the water utility.

To a lesser extent, there are areas of commonality between this study and the findings by Louw *et al.* [7] on the attributes needed by project sponsors. However, there is a fundamental difference in the priority of the attributes for projects executed by the water utility on behalf of government departments. This difference could be related to the nature of the cases considered by Louw *et al.* [7] compared with the type and categories of projects implemented by the water utility. Therefore, the following attributes should be considered by the senior management of water utilities (national government and municipalities) when assigning project representatives to implement projects:

1. *Politically astute* - This attribute is significant, since projects implemented in the government arena are funded from the national fiscus, and internal and external political dynamics potentially influence their direction [8], especially during the implementation phase.
2. *Ability to manage conflict* - Conflict arises from time to time in the project life cycle, especially in projects that are implemented at the community level, such as the ones implemented by the water utility. Therefore, the ability of the project sponsor to deal with conflict as it arises and to be decisive is key in ensuring that the deliverables of the business case are achieved.
3. *The ability to manage stakeholder expectations* - Ongoing engagement with project stakeholders, including the community where the project is implemented, should be managed in such a way that their interests are considered at all times. The research findings revealed the importance of this attribute, since many of the projects sponsored by the government were delayed, resulting in project overruns owing to poor stakeholder management.
4. *Understanding the business and business case* - The sponsor (and its representative) should understand the business environment, including the customer and the market in which it operates. Therefore, the sponsor should understand the three spheres of government (local, provincial, and national), and the legislative frameworks governing them would help in resolving conflict quickly. Furthermore, the sponsor's representative should understand and know how to ensure that the deliverables of the business case are achieved.
5. *Understanding the basic principles of project management* - The sponsor's representative and the water utility's project manager should have a basic understanding of the principles of project management and the project life model that particular projects are following. This holds true especially when different spheres of government are involved, since conflict may arise over the rationale of following certain methodologies of project management.
6. *Ability to communicate and listen* - The ability of the sponsor's representative and the project manager to communicate divergent issues at the appropriate level is seen as part of taking stakeholders' interests seriously, especially when implementing government projects. Communication and listening to stakeholders would foster an element of transparency, specifically when dealing with business forums at a community level.
7. *Experience and knowledge* - Experience in the fields of project management and government legislative frameworks, and understanding the implication of the project, would be crucial to delivering value for the project.

5. CONCLUSIONS AND RECOMMENDATIONS

The study revealed that the level of involvement of the project sponsor differed significantly at different gates of the PLCM. During the implementation of the project, the passive role of the sponsor regarding stakeholder engagement and consultation resulted in poor risk management. A strategy to address stakeholders' interests should be developed early in the initiation phase of the project, and form part of the business case deliverables. If and when the project environment changes, the developed strategy should

be reviewed by the sponsor in consultation with the implementing agent and the affected stakeholders (throughout all stage gates of the project life cycle).

The impact of the passive role of the sponsor, specifically during the project implementation phase, was evident during events such as when contractors stopped working, community disruptions, and protracted negotiations between local business forums and the implementing agent. It is highly recommended that sponsors play a more active role throughout the project life cycle, and particularly during the project implementation phase.

The study also found a lack of capacity in the sponsors to conduct project monitoring during the project execution stage. The lack of capacity was revealed by the number of projects being handled by a project manager at the same time, resulting in the sponsors not being able to fulfil their role satisfactorily at the gate before the execution stage. The lack of capacity was associated with financial constraints in the sponsor's department to recruit and retain project managers, which was indicative of ineffective resource planning by the sponsors during the development of the business case.

The problems encountered by the sponsor in creating maximum project value were found not to be unique in a developing country such as South Africa [45], which is grappling with a high unemployment rate, poverty, and inequality. These factors manifested through project disruptions that occurred in the community, since projects are viewed by many as a source of income to address poverty and inequality. Furthermore, political interference, primarily at the local government level, was shown to affect the project delivery and to lead to conflict between the stakeholders, the implementing agent, and the sponsors, which in turn resulted in escalating project costs and delays. At the heart of some of these factors was the capability of the project sponsors actively to conduct stakeholder consultation and engagement throughout the project life cycle.

When project sponsors are appointed, candidates should be assessed for possessing the required personal attributes. The most important attributes that sponsors should have are being politically astute, managing stakeholder expectations, and managing conflict. Other attributes of note include:

- understanding the basic principles of project management;
- understanding business and business cases;
- communicating and listening;
- negotiation skills; and
- experience and being knowledgeable in the fields of project management and legislative frameworks.

As mentioned in the introduction, the role of the sponsor is critical in the decision-making at the stage gates of PLCM, as it contributes to optimising the value of a project. Appropriate sponsor attributes are a major factor that determines the effectiveness of the sponsor throughout the project life cycle.

The practical value of the study for the water utility includes the following:

- It informs executives about the difficulties that sponsors face;
- it guides senior management in assigning/appointing sponsors; and
- it provides guidelines for sponsors.

Recommendations for future studies include the following. This study investigated only the attributes of the PLCM of a water utility up to project closeout. A further study should investigate and rank the key attributes beyond project close-out (i.e., into the operational phase). The level of involvement of the project sponsor and the implementing agent in stakeholder consultation during the project life cycle should also be investigated. The impact of the perceived political interference of stakeholders during the project implementation phase of the project life cycle could also be explored.

We believe that this paper could make a small contribution towards water security in South Africa, and assist executives to appoint suitable project sponsors.

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