Project and organisational barriers in the site inspection phase of a solar installation project [1]

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Abstract

This paper describes the site inspection phase of a solar installation, the problems it encountered and how they were rectified at the time. The importance of the research is to demonstrate a focus on the reflective aspect of how the project phase of site inspection was managed and demonstrate improved outcomes of using the theoretical topic of managing to address barriers at the project and organisational levels, had it been applied to this scenario. In this work, I have attempted to resolve project and organisational barriers that are faced during the phase of performing initial site inspection for a solar installation project. The scope of this paper is limited to only the site inspection phase of the described project which forms a minor, albeit, a critical part of the project to assess its long term viability. The evidence researched upon is the Project Management Body of Knowledge (PMBOK) guide for project management and the theory of recognising barriers and enhancers and reducing the recognised barriers. The key barriers identified as part of the findings of the research were cultural, leadership, communication and attitude of the individual project team member. The findings I have discussed can have positive implications towards future projects undertaken by the organisation. For this to occur, the knowledge transfer of tacit to explicit knowledge, from senior management to staff lower in the hierarchy, needs to be closely monitored and documented appropriately. It is vital the organisational process assets are reviewed on a regular basis and referred to during project kick-off meetings.

Keywords: Project and Organisation Barriers, Site Inspection, Project Management

Introduction

Projects have become a critical part of organisations in the modern workplaces. The organisation I currently work for is a project-based organisation that practices in delivering projects to end users. The nature of the business is to perform commercial solar installations that deliver solar systems to other companies to provide renewable energy solutions. This paper emphases on how to improve project outcomes by overcoming barriers at project and organisation levels.

The project in focus in a solar system installation at a Telstra Exchange in Sydney area. I will begin by providing a description of this project, including the phase of the project that is being discussed in detail. As the projects we undertake at our organisation have large timelines and are complex in nature, I have decided to discuss only an important phase of the project which is the initial site inspection. I then describe the approach that was undertaken to deliver the outcomes followed by

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[1] This white paper is developed based on the author's assignment submission to the subject UTS15356 Project Performance Improvement, which is offered by the UTS's Master of Project Management (http://www.uts.edu.au/future-students/find-a-course/master-project-management).

providing an explanation on the lessons I learnt in this phase through my personal reflection. The paper goes on to apply a theory taught in the workshop to this project, which is addressing barriers at the project and organisation level, and how this would have had a positive impact on the outcomes had this theory been applied instead.

The project

The organisation structure for my corporation adheres to a strong matrix organisation where the CEO manages functional managers such as Finance Manager, General Manager, and Sales & Marketing Manager. The General Manager principally looks after the Engineering and Projects team. There is no designated Manager for Projects Managers however, in essence, this role is performed by the general manager. I sit under the projects branch of the organisation and report directly to the general manager. In the absence of any project manager/s, I am required to act on their behalf to deliver some of their tasks. A crucial phase of our projects is the initial site inspection that determines the complexity we would be facing in delivering the objectives for that project. It also helps in determining the viability of the project and in certain cases when the results turn out to be exceedingly unfavourable the project gets cancelled. An instance when the project manager was unavailable for this phase was for a critical pilot project for Telstra Corporation. In his absence, I was tasked with managing this phase. The challenge was to assemble an installation team to visit the site and provide us site information. As this was a technically challenging project, the site inspection document that is handed over to the installer for performing the site inspection had to be carefully prepared in order to capture all the components on site. Special clearances for the installation team had to be organised with Telstra in order to perform this inspection. This was because their sites contain sensitive assets that are highly secured. Obtaining access to these sites requires additional administrative work to receive authorisation from Telstra. There were supplementary organisational assets that had to be maintained and shared with the customer. This formed part of the additional tasks I had to perform for this project. Additional tools and documents also had to be maintained for this project which needed to be submitted to their project manager at crucial milestones. Once the inspection had been booked with the site manager, at the very last moment the installer was unable to visit the site and I had to urgently communicate this to the site manager and reschedule the visit. The rescheduled inspection also faced technical challenges as the engineering team failed to thoroughly capture the potential issues that could be faced. The installer on their part did the inspection according to the document but due to not being able to access part of electrical assets they were unable to complete the inspection on this visit.

Due to this issue, I had to arrange another inspection with the facility manager. This did not go too well with the customer as they were questioning our company's integrity in being able to deliver what was specified in the contract. The next visit by the installation team completed all the necessary examinations of the site. I then communicated with the designated engineer to process the results that were captured on site and determine the nature of the installation. The project engineer was occupied with higher priority tasks and since the project manager was away I was not given the same respect as he would have attained. This resulted in the review of the site inspection data being delayed which was attended to upon the return of the project manager delaying the project further by a fortnight. Resultantly a

meeting was called upon between all the internal stakeholders to identify and capture the lessons learnt from this phase.

Each project team member was asked to present their role in this task and the project manager noted down key issues that were faced. I was asked to provide details on how I managed the site inspection and had to send a detailed email on what I had done. I also sent through the lessons learnt from my perspective which were then analysed by the project manager and he went to add his thoughts. The final lessons learnt were documented and added to the organisation's lessons learnt knowledge base. The issue register was also updated highlighting key issues along with their causes.

The key lessons I learnt were; failure to treat each site uniquely, ambiguous explanation of what needs to be done, to maintain communication with all team members involved, treat high profile customers with top priority. In theory, we are advised to treat each site uniquely and this held true for this site. As I failed to do so I was unable to capture the difficulties on this site and plan accordingly. Due to the complexity of this site I was supposed to thoroughly review the site inspection document prior to sending it to the installer on site. As I was occupied with other tasks, I ignored this crucial step and sent an 'as prepared' document by the project engineer to the installer. I also failed to communicate well with the installer assuming they would treat this site sensitively and hence be more attentive while carrying out the inspection. I failed to maintain communication with the project engineer and did not explain to them the nature of the site and the stature of the customer. I was supposed to spend additional time on this project in order to maintain the documentation and actively engage in communicating with all the stakeholders. This was another shortcoming which I noted down in my reflective journal. The entire team that was involved in this process undertook peer group meeting where project related issues were discussed and excerpts shared from their individual learning experiences. The interesting outcome of this was the similarity of thoughts that were shared by the project team and it was identified that lack of communication amongst the team members was a major drawback in this task. The peer group made a decision to improve communication channels in projects, especially between internal and external team members.

The second half of this paper enlightens the theory applied to above scenario. Any project faces several barriers throughout its lifecycle in order to deliver acceptable outcomes. These barriers could be at the project level or even organisational level. One of the workshop topics we covered was recognising and reducing barriers. Using the theories discussed I have identified major barriers that I encountered in the above project phase of completing the initial site inspection. The barriers were at the project and organisational levels and were not limited to; cultural barriers, leadership barriers, communication barriers and the attitude of the team towards this task. If I was to address these barriers during the project, I believe the outcome would have been a positive and favourable one for the organisation. I will now explore these barriers in more detail.

Starting with the culture of the organisation, this is vastly focussed towards delivering projects at a rapid rate which is driven by the general manager. On sensitive and technically challenging projects such as the above, it is vital to give yourself ample

time to plan out tasks which requires additional input at the beginning of the project. As this project was culturally treated as being part of the status quo of the organisation the project team failed to meet the high expectations of the client and the challenges posed by the site itself. To overcome this barrier I would have advised the project manager to have an extended kick-off meeting, both internally with our team and externally with the customer. This would be done to identify potential complexities and develop strategic thinking towards delivering the agreed outcomes. Culture also affected the team composition as the project team members belonged to a diverse cultural background hence they had their own ways of dealing with adversities. This issue could have also been resolved by agreeing to communicate effectively.

The absence of the project manager meant the project faced leadership barriers from the start, as in the interim, I was handed over this role. My leadership style is different to that of the original project manager. While taking over such phases of projects had not had much impact in the past, however, there was a significant impact on this one. I failed to define team structure and objectives for this task. What made matters worse was lack of support from senior management including other project managers. These barriers can be addressed by developing a Human Resource Management Plan by referring to the PMBOK guide. This plan describes how roles and responsibilities of project team members, reporting relationships, and staffing management would be addressed and structured for the project. I had failed to develop this plan during the course of the project and this flaw turned out to be disastrous. I noted this down on my reflective journal and would make it a habit to refer to it in future projects. As identified in the CDC Newsletter "A major risk to projects is not having resources with the right skills available at the right time they are required". I addressed this risk in the Human Resource Management Plan as it identified the staffing requirements, how they will be met, and specified the processes and procedure used to manage the staff throughout the project's lifespan. I would go on to confirm the availability of resources and obtain the right staff at the appropriate time of the project. I would get the approval of the senior management for this plan before implementing it so when I request additional resources they are aware of it. I would highly recommend discussing the plans with the customer to inform them about our strategies and gain their confidence in our methods to deliver their desired objectives.

Communication barriers faced in this project were; external stakeholders were not made aware of the progress of the site inspection and what project activities would be undertaken, the deliverables and the outcomes. For future projects, I will address this by developing a Communications Management Plan following PMBOK's process of Plan Communication Management. This is the process of "developing an appropriate approach and plan for the project communications based on stakeholder's information needs and requirements, and available organisational assets". As stated by the PMBOK guide the value this process adds to the project is in the identification and documenting of the approach to communicate most effectively and efficiently with stakeholders. Each process defined by the PMBOK guide is encompassed by its inputs, the tools and techniques that can be applied, and the resulting outputs. Key success factor in implementing processes outlined in the guide is by carefully tailoring each process that is applicable to the project in focus and its inputs and outputs. Similarly, I would tailor Plan Communications

Management process to include the inputs of Project management plan, enterprise environmental factors and organisational process assets. I would employ tools and techniques such as communication requirement analysis, meetings and communication methods as these align with our organisational assets. As mentioned earlier the key output would be the communications management plan which will be updated regularly. This will then be implemented as a regular practice for future projects as our company places a high emphasis on continuous effective communication.

Despite having a multitude of tools and techniques available to the projects team, ultimately it is the attitude of the individual that differentiates between successful teams and underachieving or dysfunctional teams. Our organisation focusses on employing people with a positive can-do-attitude however there is still a likelihood of demotivation creeping in. To overcome this barrier, I would engage project teams to participate in regular team building activities during the start of new projects as part of the project initiation phase. This would allow stronger team bonds that will further improve cohesion amongst members and lead to positive attitude. Assigning a highly motivated project manager will ensure they are on top of their tasks and continue to push other team members to deliver. I have personally experienced this in the past while working for certain managers.

Lastly, I would like to implement new practices and processes that would improve performance and create new enhancers. I would establish this by recommending a mentoring program to the management. Carr 1995 states, "In recent years mentoring partnerships have become more formally recognised in the workplace as playing a crucial role in the personal and professional lives of successful employees and their leaders". Being a valued member of the Project Management Institute, I have previously participated in the mentoring program and understand the value it provides in both professional and personal life contexts. In this program senior management can act as mentors giving them the benefits of; an opportunity to reflect their own practice, enhancing job satisfaction, developing professional relationships, enhancing peer recognition, widening their understanding of the organisation and how it functions, and would shape their tacit knowledge into useful explicit knowledge for others to gain. The recipients of these programs, mentees, can be aided by receiving impartial advice and encouragement, developing a supportive relationship, receiving assistance with problem-solving, improving their self-confidence, offering professional development and further encouraging reflection on practice.

Conclusion

I would like to conclude by saying that barriers in a project environment should be identified as risks during the planning phase and it is the responsibility of the project manager to develop mitigation strategies to overcome these inadequacies. When these barriers are eliminated, there is a significant rise in project performances at all levels. Aiding employees with mentoring programs further enhances performance and encourages greater commitment towards the organisation. These interactions are a boon to improved communication which is essential for my organisation. I certainly believe if my learnt theories about barriers are applied to future projects, the project team will deliver results more effectively and efficiently, also improving their

communication with all stakeholders. This will be invaluable to projects such as the one re-examined above and at a minimum would certainly enable the project team to deliver at the expected level of the customer if not better. I strongly recommend the above theories and, recognising and removing barriers to be implemented in my organisation.

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