

LESSONS FROM LIVE PROJECT: A CASE STUDY ON A LANDSCAPE PROJECT OF AN INSTITUTION

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ABSTRACT

This paper evaluates the authors' experiences in supervising a construction of a landscape project of an institution. The works involved an upgrading of the landscape and hardscape of the main entrance, while the supervision was originally devised by several lecturers. The live project provided good impacts to both students and lecturers. For instance, live project with real problems and client has strengthened students' practical knowledge. Secondly, live project has provided experience and knowledge for better teaching/learning of built environment subjects. It was an urgent project and thus, dateline was highly important. Though the construction had completed on time, there were complaints received; e.g. issues on the quality and project cost. These unsuccessful parts of the construction were perhaps related to several reasons such as Coordination Meetings (CMs), professionalism and ethics, and Statement Needs (SNs). This paper uses evidences drawn from site supervisions and discussion with expert/colleagues in reviewing the factors that would link to the issues. Review presents several findings, which are leading towards that; lack of skilled workers, ineffective coordination and lack of responsibility and commitment and etc. The paper suggests that good Construction Practices (CPs) can be achieved through good coordination among construction teams, organised CMs, and definite SNs. The ideas can perhaps be considered for future construction with similar nature of work. Further, the insights may also contribute significant implications to several individuals and organisations, namely stakeholder, Superintendent Officer (SO), academicians, students, contract workers, project cost, quality of works, project dateline and many more.

Keywords: Live Project, Case Study, Coordination Meetings (CMs), Professionalism and Ethics and Statement of Needs (SNs)

INTRODUCTION

Initially, several lecturers had mentored the second year students preparing the design ideas (e.g. conceptual design up to Master Plan). The design activity had lasted for a period of one month,

while the construction works had taken for about three months time. It is agreed that the supervision activities have provided good implications to the educators in the built environment discipline. For instance, fresh ideas acquired on site allow more meaningful education to be conveyed in a design studio or classroom. It is believed that effective teaching method would be achieved, if both real and theoretical knowledge are made available to students. Secondly, getting involved in a live project can enhance the practical knowledge of both lecturers and students.

Here, the authors would like to present their experiences in supervising a construction of live project from the unsuccessful side of it. Taking note that "*Live Projects should value failure.....*" (Chiles, and Holder, 2008), and it is rationale to set a culture that failure is not necessarily bad. This is one of the aspects in the construction thought worth reviewed in. Thus, errors that occurred in the construction can be identified and rectified for future benefit. Based on this, all the construction participants should have bear in mind that all projects may not always end up with successful results.

As an academician, the task of supervising the project was quite challenging due to time constraint that resulted from teaching work load. So, supervision activities could only be carried out, when the lecturers were not having a class during certain days of a week. This explains that there was no specific schedule designed to cater for the purpose. Site visits were mostly depending on the availability of time and the urgency to oversee the works progress together with the methods of implementing the construction works. On the other hand, both complaints on the quality of works delivered and the project cost can be accepted as project's failures. This paper then reviews the potential issues believed to indirectly implicate the results of the project, taking site supervision as the main evidences and to build on these some lessons for years to come.

OBJECTIVE AND SCOPE

The purpose of this paper is to review the results of the landscape construction of an institution having focused on the specific issues thought to implicate the quality and cost of the project delivered. It discusses how good Construction Practices (CPs) can be accomplished through regular and organised Coordination Meetings (CMs), finalised Statement of Needs (SNs) and good practices of professionalism and ethics. The paper consists of three specific objectives.

The objectives are to:

- i) present a case study that demonstrates authors' experiences in supervising a construction of live project
- ii) review several potential issues that implicate the results of the project
- iii) evaluate the issues that correlate to the unsuccessful of the project

METHODS

The data acquired from site supervision and discussion with expert and colleagues are difficult to evaluate because they depend largely on authors' judgement. Further, the sensitivity of some data creates limitation in the review and discussion. Despite all that, there are evidences from the literature provided to support the authors' viewpoints. Generally, personal observation was the main method used to collect data, while the discussion with experts/colleagues was used to support the main data.

Personal observation - Site supervision

The activity involved collaboration of several teams and this included a list of participants that varied from management staff, lecturers, contractors and contract workers. Since the project was important and urgent, this placed huge responsibility on each of the teams' members. It is observed that the successful of the project would very much depend on the good support of each individual. In the context of professionalism and ethics, this explains the importance of being committed and responsible for one's tasks based on individual's job scopes. Low commitment

and lack of responsible were the constraints observed to influence the results of the project.

Conflict of interest was another issue thought to contribute to these. For instance, when a decision was made, the results should be then made known to all of the construction teams. Next, it is observed that good CPs could also be achieved through well-coordinated working environment. Here, regular CMs were recognised as the best tool to monitor the overall work progress and the manners of how the construction should be carried out. Series of organised CMs found to be lacking during the supervision period, though their role to the successful CPs was important. This is true when meetings are considered important and accepted as a primary planning mode in the process of planning during construction (Dora, Laufer, Shapira and Howell, 1994).

In another case, some stakeholders may not realise that there are risks, if the SNs are unclear or indefinite. Not being clear or changing of the needs from time to time would lead to uncertainties of job scopes and Variation of Order (VO); would result to an increase of a project's cost. This shows that besides financing a project, there are also others roles need to be considered for the successful of a project. Interestingly, the issue has been comprehensively described in Xiaojin, and Jing (2006). Both authors agree that stakeholders have the most important role in ensuring the successful of a project. For instance, based on personal observation, relevant decisions were thought necessary, so that, conflicts in the decision making resulted from indefinite SNs could be minimised on site.

Conflicts would also arise, due to these factors; e.g. unavailability of construction supplies or additional / change of job scopes or specifications. In other words, the confirmed works instructions were crucial in the project with the status of urgent. Another potential issue that might lead to failure could also be directed to unavailability of skilled workers. The urgency of acquiring skilled workers was detected in some specialised planting works concerning slope area. So, comments received on the poor quality of work and increased of project cost have basis to these. In

summary, the Table 1 presents the relevant issues that were personally experienced and observed on site.

Table 1: List of issues observed during site supervision

No.	General Issues	Specific Issues	Implications
1.	Lack of Coordination Meetings (CMs)	<ul style="list-style-type: none"> • poor coordination and communication among construction teams • conflict in making decisions on site • unclear instructions to be executed on site • miscommunication among construction teams 	<ul style="list-style-type: none"> a. delayed in making decision and work progress b. provided inaccurate specifications c. affected quality of works delivered
2.	Unacceptable Conducts in Professionalism and Ethics	<ul style="list-style-type: none"> • Lack of commitment, support, and responsibility • Conflict of interest when involved authority imposition • Unable to provide right expertise as demanded in job scopes 	<ul style="list-style-type: none"> a. affected quality of decisions made on site and works delivered b. sacrificed the good service to the public c. wastage of construction materials and money d. unavailability of supplies
3.	Unclear Statement of Needs (SNs)	<ul style="list-style-type: none"> • Change job scopes • Lack of written instructions 	<ul style="list-style-type: none"> a. Risks to project in terms of cost and quality

Discussion with expert/colleagues

For the purpose of discussion, two experts from the field of quantity survey were consulted. Their knowledge and experience in the construction industry were used to validate on the good construction practices, On the other hand, colleagues from the disciplines of architecture and landscape architecture had provided information on the manners of how coordination meetings, statement of needs and professionalism and ethics are best fit into the scenario. The selection of the experts and colleagues was based on the numbers of year involved in the construction industry. The minimum requirement was at least two years of professional working experience.

BACKGROUND OF LIVE PROJECT WITH LESSONS TO LEARN

The project was commissioned and funded by the same institution. The idea was to enhance the entrance by re-branding the landscape and showcasing it to visitors. At the same time, the students of the built environment discipline can benefit from the project. The landscape would become an ‘outdoor laboratory’ that provides specific knowledge on the planting materials as well on the methods of constructing certain hardscape elements. Importantly, the project was initiated as a student project, where a group of second year students together with two fresh graduates were involved in preparing the initial design concepts and ideas. This approach was mainly meant to expose students to real design problems, so that, the practicality of the theoretical knowledge learnt can be tested on the ground.

Having finished mentoring the design work, three lecturers of the same group had voluntarily helped supervising the construction activities. Though many believe that the project is unsuccessful, there are several lessons worth discussed here. Live project is seen as the key to solid professional education, technology search, notion of construction management strategies and many more. These are among the plural results that were discovered from the real site, client and budget. The practice shows that the concept of isolation between theoretical and practical education in the built environment institutions may no longer relevant to this era. Perhaps, the so called ‘intellectual labour’ can best describe the paradigm, where effective teaching is found to correlate to live project.

For instance, in the West, live projects have been commonly adopted in the design based education (Sara, 2006). Perhaps, this concludes that live project is important towards solving the real and future construction problems. Further, skills, and pure intellectual information acquired from the live project would assist lecturers in the making of better accredited built environment programme. They build confidence among lecturers through clear ideas or understanding and provide clear direction for future education system. In the context of Construction

Practices (CPs), the real issues of live project can become the models to be considered for the betterment of such industry.

Live project should then be recognised as the platform, where critical thinking, creativity or practical techniques of managing a construction can be explored. Engaging with the live project creates good culture among the educators, for it allows many theoretical ideas to be tested on ground. This is somewhat to balance up the differences between the theoretical education and practical demands. Thus, underpinning the practice of live project provides incentives to both academicians and students in the built environment discipline.

REVIEW OF POTENTIAL ISSUES CONTRIBUTING TO PROJECT'S FAILURE

Here, the real issues have concerned on the quality and cost of the project delivered. It is understood that the landscape of the main entrance has failed to portray the right ambience as what the institution expected in the first place. If the project has been perceived to be unsuccessful, thus, the potential issues that lead to it should be identified and reviewed. Based on evidences drawn from personal observation (site supervision) and discussions with experts/colleagues, the findings present several key issues that indirectly had affected both the quality and cost of the project.

Coordination Meetings (CMs)

It seems particularly important to plan, schedule and manage necessary meetings throughout the construction process. The practice offers opportunities to project participants to communicate and interact with direct contact on matters that concern day to day planning process. It was observed that, CMs with proper scheduled would have minimised conflicts in making decisions on site or off site. This explains the role of the meetings in the context of primary planning mode. Several site meetings were occasionally held during the construction and found to be effective in solving urgent construction issues in situ; e.g. site clearing activities, construction supplies and etc.

In short, regular CMs were relevant in the sense that they were sometimes able to resort issues relating to undefined job scopes, unavailability of construction materials, shortage of manpower, methods of constructing unique landscape works and etc. However, the number of CMs conducted during the construction period found to be limited. Lack of meetings observed to implicate the coordination among the construction teams, especially on matter that associated with daily construction works. The scenario presented here has rationale to influence the quality of landscape and hardscape delivered as well as the cost of the project.

Professionalism and ethics

Here, the authors relate ethics to either good or bad and right or wrong conducts, while professionalism explains the need to provide good service to the public. On the other hand, based on the Islamic ethics, the good conduct or ethics can be translated as *amanah*. The beauty of Islam is that, the teaching commands all the *muslims* to be *amanah* at all times; disregard of place, time, situation or condition. Importantly, the good manner must be evidenced in all aspects of ones' life. The command is *wajib* and fails to adhere is sinful. So, this shows the degree of value that Islam has imposed on the believers. Anyway, professionalism is somewhat like an obligation that again, all the *muslims* have to abide. These are the *adab* that includes honesty, integrity, responsibility and many more.

Coming back to the review, there were certain elements thought to be unethical and unprofessional practices found to influence the unsuccessful of the project. They are identified as: i) not knowing to construct a specific landscape work ii) not showing full commitment or responsible when not abiding to schedule of works iii) not being able to provide the necessary expertise, knowledge or skill in responding to job scopes. Another unprofessional conduct that can be considered for the reviewing purpose was the issue of conflict of interest. Perhaps, this can be explained as not being able to practice the necessary transparency. All these reflect the issues of morality that has concerned for right behaviour and how a member in the construction should conduct oneself (Jamilah, 2009). So, these were among the grey examples

presented under the issue of professionalism and ethics that were thought having negative impacts on the results of the project.

Statement of Needs (SNs)

SNs refer to client's needs as normally state in writing It is an important document or the so called project brief with several information to be adhered by designer. It guides a designer to establish preliminary design ideas. Coming back to the project, the intents were not clear since at the proposal stage. Occasionally, there were some changes of job scopes made without clear written instructions. The situations caused difficulty to several construction teams. Though stakeholder might have good reasons for that, still the action would put the project into risks. One of the risks was due to Variation of Order (VO); one of the implications was that, it would incur the project cost.

Perhaps, this was among the reasons, why the cost of the project delivered did not match to the earlier cost estimated. The cost of the delivered project had become double. In conclusion, the indefinite or unclear SNs observed to affect both quality and cost of the project, while the following statements justify the authors' view. Again, due to additional work or change of job scope, more manpower was needed to meet the project's dateline. Second, the situation had potential to sacrifice the quality of the works delivered, when urgency became top priority. So, these were among the issues under the SNs, thought to influence the results of the project.

DISCUSSION AND CONCLUSION

Discussion on the issues of the landscape project as stated in the 'Review of Potential Issues Contributing To Project's Failure' is the typical situation experienced in any construction. This paper reviews these issues (e.g. CMs, SNs and professionalism and ethics) and views them to correlate to the unsuccessful of the project. In the review, the authors state that lack of CMs had implicated the coordination among the teams and the direction of the construction. When the situation continued, the potential of making wrong decisions on site would be very high. In this case, perhaps, several scheduled meetings could have been arranged

with little effort from the relevant authorities. This was the crucial aspect, where most architectural constructions have never fails to adhere to. It is observed that lack of coordination meetings was due to poor conducts (e.g. lack of commitment and responsibility) of few construction teams.

The review further discusses on the unclear project brief, which was directed to the SNs. The contents should have been clearly written out and finalised, so that, everybody involved in the construction had clear vision and direction. Importantly, the potential of having VOs through indefinite SNs was high and this should be avoided for better financial management. Perhaps, the relevant construction team or individual could have explained on the implications or consequences of not having a focused project brief. In many cases, client was not aware about that and the matter should be clarified before the construction took place.

Finally, the review talks about professionalism and ethics, which was thought to be the most sensitive of all the issues presented. When dealing with a public's work, perhaps, good attitude, behaviour, or moral conduct would be the major attributes needed in achieving a zero – defect project. Here, the complaints received are evidenced on the landscape and on paper; e.g. account statement. This explains the quality of work delivered was not parallel to the value of money spent. Through good professionalism practices, the public should be able to use, benefit and enjoy the landscape with the right money value. Similarly, ethics was another behavioural issue that had significant impact on the quality of the project. For instance, conflict of interest could have been avoided if all members were able to practise transparency. Meaning that, all the decisions made regarding the project should be disclosed to all of the construction teams. Again, the situation is considered unethical and not permitted.

Because of the aforementioned in the review, it is worthwhile to consider the authors' experiences as lessons to be considered in the future construction with urgent needs. Importantly, they are issues not to be repeated and become exemplar for better CPs. In conclusion, the insights provided have implications to several individuals and organisations; e.g. stakeholders, academicians and

students in the built environment discipline, Superintendent Officer (SO), consultants, supervisor, contractors, vendors, contract workers and many more.

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