Evaluating Malaysian Landscape Architecture Project Issues Controllability Level

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Abstract

The study's purpose is to assess project issues' controllability and indicate the necessity for a management system in Malaysian landscape architecture projects. A semi-structured interview with twenty-four Klang Valley landscape architects was utilised to collect data. The acquired material was analysed using content and thematic analysis. The study discovered that project issues could be managed if anticipated and addressed in advance. Despite this, inaction on common issues continues to affect project outcomes negatively. The study recommends developing a procedure for forecasting, evaluating, and treating future concerns.

Keywords: landscape architecture; project issues; controllability; management system

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1.0 Introduction

Landscape architecture projects are considered dynamic, with various obstacles arising from the projects' intrinsic ambiguity and complexity, resulting in a slew of issues. The project's methods, environment, and stakeholders all contribute to the project's failure due to this situation. Before a project's outcome is jeopardised, issues must be anticipated and addressed. In Malaysia, landscape architecture projects are a subset of the construction sector known for dealing with a wide range of project issues. Due to poor management of project issues before construction, construction projects in Malaysia face schedule and time overruns (Adnan & Rosman, 2018; Fadzil et al., 2017; Goh & Abdul-Rahman, 2013; Jusoff et al., 2008). Landscape architects are liable for serious bodily injury and property damage caused by their professional services under professional regulatory indemnity (Schatz, 2003; Williams, 2019). According to Ansah, Sorooshian, Mustafa, and Duvvuru (2016), even a little or basic project can run into complications due to the engagement of two different parties. Although project managers cannot forecast the future, they can anticipate and handle project issues before they become a project (Ansah et al., 2016; Tserng et al., 2009)

These dangers turn into project issues, influencing the project's quality, cost, schedule, scope, and goals (Farooq et al., 2018; PMI, 2017; Razi et al., 2020). Preliminary findings suggest that landscape architects can anticipate project issues as practitioners of landscape architecture. The scope of practice, which includes all phases of work during a project, requires the practitioner's knowledge base to be expanded (Hasan et al., 2018). They can also suggest control strategies to avert any potential project issues. Project issues continue to arise, regardless of their capabilities, due to inadequate problem-solving. Landscape architecture projects are the principal source of revenue for a landscape architectural firm. Failure to accomplish project goals will harm the company's financial performance, operations, culture, and reputation (Abdul-Rahman et al., 2015). Understanding the controllability of present project issues is essential for the project practitioner to plan the activities needed to manage and control these project issues in the future (S.Muthuveeran et al., 2020). Landscape architecture projects are seen as dynamic, with a wide range of outcomes and challenges arising from the projects' intrinsic ambiguity and complexity, leading to a slew of issues. The project's methods, environment, and stakeholders all contribute to the project's failure due to this situation. As a result, issues must be foreseen and addressed before jeopardising the project's success. On the other hand, this project focuses on controllability issues directly relevant to Malaysian landscape architecture projects and has gotten little attention in the literature.

As a result, this study aims to assess the controllability of project issues and determine the necessity for a management system in Malaysian landscape architecture projects. The goal is to document project issues that have occurred, evaluate the project's ability to control project issues, and assess whether a management system is required to control project issues.

2.0 Literature Review

2.1 Project Issues Definition

Project issues are defined differently depending on the scope and sector of the project. Previously, PMI described an issue as *"A point or matter that is in question or dispute, or a point or matter that is not settled or under discussion or over which there are opposing views or disagreements"* (PMI, 2004, p. 363). Baker (2007, p. 3) defines an issue as "a gap between your actions and stakeholder expectations." Meanwhile, the Office of Government Commerce (OGC) defines an issue as *"a relevant event that has happened, was not planned, and requires action"* (OGC, 2009, p. 98).

Consequently, PMI defines a project issue as *"A current condition or situation that may have an impact on the project objectives"* (PMI, 2017, p. 709). In substance, PMI's definition is comparable to Projects In Controlled Environments (PRINCE2), which defines an issue as *"A relevant event that has happened, was not planned, and requires management action. It can be any concern, query, request for change, suggestion, or off-specification raised during a project. Project issues can be about anything to do with the project"* (PRINCE2, 2017, p. 376). Meanwhile, the APM in the United Kingdom takes a slightly different stance, stating a problem as *"A threat to the project objectives that the project manager cannot resolve. Issues should be differentiated from problems, which are concerns that the project manager has to deal with on a day-to-day basis."* (APM, 2006, p. 48).

In conclusion, any scenario or occurrence that has impacted the project's ability to achieve its objectives is defined as a project issue in this study. It is characterised by a misalignment between project outcome and stakeholder expectations. All project parties impacted by the project's outcome, including the serving professional landscape organisation, are considered stakeholders.

2.2 Project Issues and Risk

It is inappropriate to use "issues" and "risk" interchangeably. An issue is a historical occurrence or circumstance that has impacted or is now affecting the project's objectives, according to the Project Management Body of Knowledge (PMBOK). Meanwhile, the risk is an unpredictable event or situation with a favourable or unfavourable impact on the project's objectives (PMI, 2017). Risks are unpredictable, whereas issues are specific since they have occurred. After all, an event might not take place (APM, 2006). An event, obstacle, or difficulty is referred to as an issue. A risk is the prospect of losing something (Spacey, 2016).

Risks are often managed in a "future-focused" approach, whereas issues are typically addressed in a "present-focused" manner. Risk involves an element of uncertainty, whereas issues are unavoidable since they have already occurred. However, both issues and risks impact a project, which is why they must be controlled.

2.3 Project Issues' Controllability

"A risk may have one or more causes and, if it occurs, one or more impacts," according to PMI (2004, p. 238). Though the reality is significantly more complex, one cause results in a single risk, which may have only one effect (Bugayenko, 2019; Hillson, 2018). Risk meta-language effectively separates risk from its cause and consequence, as seen in Figure 1 (PMI, 2009, p. 29).

Figure 1: Relationship between cause, risk, and effect.
(Source: Extracted from PMI, 2009, p. 29)

An observable fact regarding the project's difficulties or surrounding environment is defined as a cause. At the same time, the risk is an unknown that, if realised, could jeopardise the project's goal (Hillson, 2018). Project issues are what happen as a result of risk. Because *"a project risk that has occurred can likewise be deemed an issue,"* issues are relevant in the context of risk (PMI, 2009, p. 275). The comparison of risk and issues shows that proactive risk management can help mitigate project issues (Baker, 2007).

As a result, project issues can be managed and avoided. If issues are addressed sooner rather than later, they can be controlled more effectively. A future lesson learnt for the project will identify and document issues (PMI, 2017). If a project manager anticipates issues that develop due to a lesson learnt successful strategy, they can take effective action.

3.0 Methodology

Exploratory case analysis was used as part of the research technique. A preliminary investigation, data gathering, data analysis, and reporting are all part of the study's four-stage process (illustrated in Figure 2). First, a preliminary investigation determines the study's context, need, gap, and goals. Second, twenty-four professional landscape architects in the Klang Valley were interviewed in a semi-structured interview. In keeping with the exploratory study, open-ended interview questions were pre-tested and asked in the form of an aide-memoire to provide respondents leeway and freedom to react (McNamara, 2017). The transcribed text, audio recordings, and project documentation were logged, and the research software, *ATLAS.ti* version *8.4.25*, was recorded and organised. Finally, content analysis determines the codes, categories, and topics (Mayring, 2014).

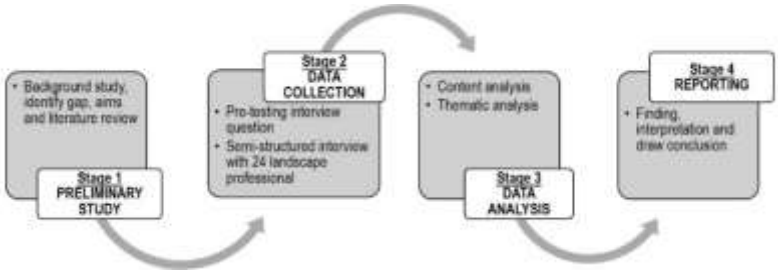

Figure 2: Study procedures

Themes were also interpreted and mapped using thematic analysis. The analysis comprises diving into the relationship between the categories and the theme, spotting patterns, and charting a course of action (Maguire & Delahunt, 2017). Finally, the findings and interpretations are reviewed concerning project issues that have happened and project risk that has been projected. The conclusion is obtained from the objectives of the study.

Table 1: Respondents information

Respondent	Respondent's Position	Respondent's Background		Respondent's Organisation Background		
		Education	[a] Years of Experience	[b] Years Established	[c] Headcount Size	[d] Total Ongoing Project
R01	Director	Abroad	Expert	Established	Small	Medium
R02	Project Director	Local	Intermediate	Established	Small	Medium
R03	Director	Abroad	Expert	Established	Small	High
R04	Director	Local	Expert	Established	Small	Medium
R05	Principal	Local	Intermediate	New	Small	Low
R06	Director	Local	Expert	Established	Small	Low
R07	Director	Local	Intermediate	New	Micro	Medium
R08	Director	Local	Intermediate	New	Micro	Low
R09	Director	Abroad	Expert	New	Small	Low
R10	Director	Abroad	Expert	Intermediate	Small	Medium
R11	Associates	Local	Intermediate	Established	Small	Medium
R12	Head of Contract	Local	Intermediate	New	Small	Medium
R13	Director	Abroad	Expert	Intermediate	Small	Low
R14	Director	Local	Intermediate	New	Small	Medium
R15	Director	Local	Expert	Established	Small	Medium
R16	Director	Local	Intermediate	Intermediate	Micro	Medium
R17	Principal	Local	Intermediate	Intermediate	Small	Medium
R18	Director	Local	Intermediate	New	Micro	Low
R19	Principal Director	Abroad	Expert	Established	Small	Medium
R20	Director	Local	Intermediate	New	Small	Medium
R21	Director	Abroad	Expert	Established	Small	Medium

R22	Managing Director	Local	Expert	Established	Small	Medium
R23	Director	Local	Intermediate	New	Micro	Low
R24	Director	Local	Intermediate	Intermediate	Small	Medium

Notes :
[a] *Beginner (< 10 years) / Intermediate (10 < 20 years) / Expert (> 20 years)*
[b] *New (< 10 years) / Intermediate (10 < 20 years) / Established (> 20 years)*
[c] *Micro (< 5) / Small (5 < 30) / Medium (30 < 75): Malaysia's Small and Medium Enterprises (SME) classification*
[d] *Low (< 20) / Medium (20 < 40) / High (> 40)*

The landscape architecture organisation chose twenty-four respondents based on predefined sampling parameters. They were licenced landscape architects who worked for landscape architecture firms. In their current organisation, they held management and decision-making positions, indicating that they influenced policy and practice on the ground. All responders had at least ten years of experience in the field. As part of a complete cycle of landscape projects in an urban area in Malaysia's Klang Valley, they worked on various project sizes, locations, and scopes. Each respondent was given an alphanumerical code (R01–R24), and the information about each respondent is included in Table 1.

4.0 Results

4.1 Project Issues That Occurred

Respondents were asked for their thoughts on issues stemming from the project's difficulties. The interview input yielded 79 coded project issues, which were then grouped into six affected project objectives, as shown in Table 2.

Table 2: Feedback on landscape project issues and affected objectives from respondents

Respondents	Landscape Project Issues	Affected Objectives
R09, R23	Project complexity and scope put the business under financial pressure	Business
R05	Additional Variation Order (VO) works not paid	
R04, R09, R13, R17	Constant design change disrupt business operations	
R09, R18	Prolonged professional services from the agreed contract	
R13	Professional fees are underpaid	
R12	Project scope is reduced, affecting the service fees	
R09	Project stopped halfway	
R02, R17	Project outcome affects the business reputation	
R04, R05	The project did not follow the initially planned process	
R05, R13, R21	Internal operation disruption due to project undertaking	
R09, R18	Demotivated project team	
R02, R06, R08	Poor quality by the contractor	Quality
R06	Contractor rushing to complete due to a tight deadline	
R13, R15, R17	Low-quality material due to cost-cutting	

R06, R10	Planting damaged	
R03	Mechanical element malfunctioned	
R08, R14, R24	Underspecification	
R17, R24	Defect and redundant appearance	
R11	The degraded environment due to erosion	
R03, R12, R19	Rework cost due to defect	Cost
R05, R07	Additional work instructed by the client without payment	
R02, R10, R11, R22	Additional work and design change are unpaid	
R05, R21	Site damages by others lead to additional project cost	
R09	Complying with authorities' instruction for changes	
R01, R04, R11, R13, R17, R20	Client dissatisfied with project's physical outcome	Stakeholders Satisfaction
R03, R11, R22	Poor consultant servicing	
R02, R17	Poor design realisation due to too many amendments	
R01	Holding back project CMGD approval and refused to close a project	
R22	Contractor stopped working	Time
R06 R20	Late site mobilisation and site not ready	
R05, R08	Poor contractor scheduling	
R22	Frequent site instruction and additional work	
R10, R11. R13	Short timeline given	
R03	Prolonged CMGD clearance	
R05, R13. R20	Extensive VO	Scope
R14	Damages to completed works - replacement not accordance specification	
R02, R10	The client changed their mind	
R13, R17	Cost-cutting practice by the client from the agreed sign-off proposal budget	

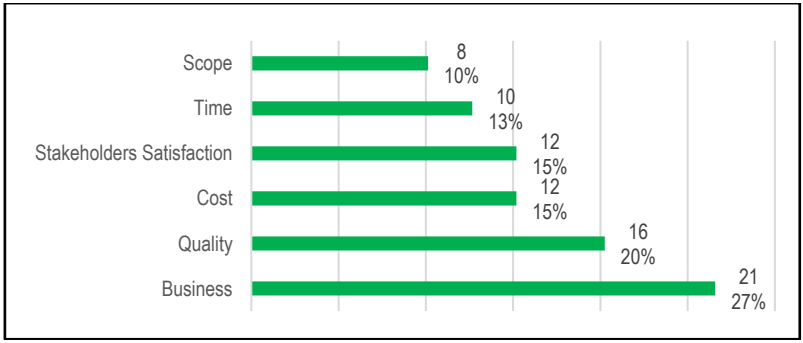

Figure 3: A summary of the project issues that have been impacted.

According to the research shown in Figure 3, the most critical issues impact the business goal. The most prevalent issues impeding the attainment of business objectives include constant design modifications, a tarnished business reputation, disruptions in

internal operations, and demotivated project teams. Substandard contractor work, planting damage, and material misspecification, on the other hand, harm the most objective quality. Unpaid costs to the landscape architect for additional work and design changes are the most significant causes for the cost aim. Finally, significant Variation Orders (VO) and clients' frequent design and planning changes impact the scope aim.

4.2 Predictability of Project Issues that Occur

The capacity of respondents to forecast the 79 issues that arose during the project was tested. As seen in Figure 4, the data are divided into two categories: expected and unpredicted.

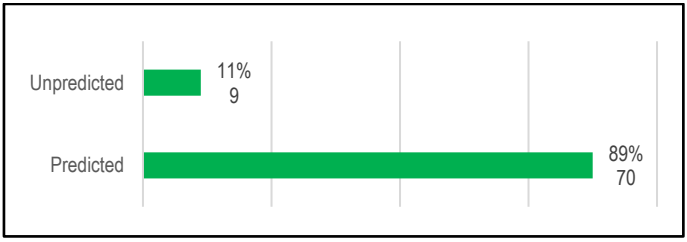

Figure 4: The predictability of project issues

According to the findings, 70 (89%) of the 79 project issues could be forecast in advance, according to respondents. According to R03, R13, R15, and R23, project issues could be predicted based on substantial research and project team members' expertise. Surprisingly, specific technical issues, such as budget, technology, quality, and scope revisions, were foreseen early. The issues that were projected based on contractor input (R03, R20), team members' experiences (R04, R05, R15, R19), a competent project team (R02, R05), team project meetings and discussions (R05, R06), and forecasting (R06, R19). Most project issues, according to R13, can be predicted as early as the project's genesis stage. R05, R10, R11, R21, and R24 agreed that project issues should be identified early in the project's lifespan to be resolved before they have a detrimental impact on the project's conclusion. R11 emphasised the need to commit effort to the project's early stages because extra project information is needed to foresee issues.

Only nine (11%) of the 79 issues that occurred were unexpected and unplanned. Environmental impact, site circumstances, new product application, team member turnover, economic instability, design market trend, price fluctuation, social-political climate, project members' personalities, and payment delay, according to R04, R07, R09, R11, R13, R14, R16, R17, and R21. Issues involving subjective matter, such as human, socio-cultural, and environmental repercussions, are difficult to predict, according to R08. Landscape scope, which necessitates design input and engagement with the environment, is more subjective than engineering projects, according to R17, leading to a high level of uncertainty and unforeseen occurrences.

Because of the project managers' knowledge and ability to forecast, the bulk of project issues was anticipated. Objective technical issues that necessitate technology, engineering input, and a predictable scope Intangible issues such as the environment, design, and human personality, on the other hand, are more challenging to forecast, which may satisfy stakeholders

4.3 Treatment For Project Issues That Have Been Predicted

Respondents were questioned about how they planned to address the 70 issues that were predicted. As shown in Figure 5, the study identified three diverse behaviour patterns among respondents regarding the projected issues.

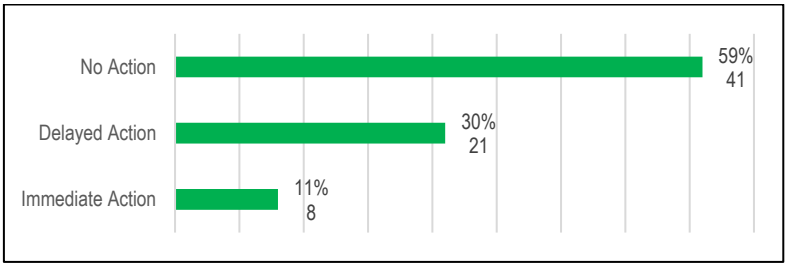

Figure 2: The steps taken to address the issues that were predicted

Only 8% (11%) thought that issues would be resolved right away. The steps performed mainly were aimed at preventing the projected issues from occurring, such as decreasing the scope and simplifying the design (R09, R15), minimising the maintenance effort (R04, R12), and changing the service agreement (R09, R12). R11 created a contingency fund, while R15 changed the project's operation. By shifting the scope, R22 was able to avoid the issues.

Second, 21 (30%) projected issues were postponed by treating them when they happened. The majority of the activities aimed to reduce the project's negative issues. These include negotiating with the client to acquire additional monies and time allowances (R02, R19); monitoring, recording, and reporting to protect the consultant (R02, R03, R20, R21); and increasing communication (R11) (R10). Mitigation activities are conducted while dealing with contractors, such as passing liability to contractors and suppliers (R02, R03), monitoring the contractor (R06, R08, R09, R14, R17, R24), and changing the contract and operational method to reduce the impact of the issues (R22).

Third, most respondents (41%) predicted the issues but did nothing about them. The project team was in charge of day-to-day operations. This action was taken because respondents had no other options, which was due to several factors, including the need to stay in business, the need to maintain client relationships (R01, R06, R07), the local authority's instruction (R17), the client's instruction (R08, R10, R18, R19, R23), and a time constraint (R14, R16). Because the project manager assumed they could be managed within the existing method, specific predicted issues were unanswered (R01, R06, R08,

R24). According to R09, R17, R19, and R24, the issues were anticipated and will have little impact on the project's overall outcome. Meanwhile, R02, R05, R14, and R20 stated that they were aware of the looming issues but waited too late to solve them.

Despite its capacity to foresee previous issues, the evaluated project issues are almost certain to occur due to its tendency for passivity. Delayed action reduces the severity of the issues, but it does not eradicate them. It was decided that quickly addressing the projected issues was not the best course of action. This scenario explains why project issues persist.

4.4 Suggested Treatment Strategy For Project Issues Predicted

According to the developing finding, respondents could suggest a prospective treatment method for the project's issues. As shown in Table 3, their reactions are divided into four risk management techniques (PMI, 2017), avoidance, mitigation, transfer, and acceptance of the issues.

Table 3: Respondents' feedback on project issues treatment strategies

	Treatment Strategies	Respondents
Avoid	Close stakeholder engagement to obtain crucial information	R04, R07, R12
	Study the project background and stakeholders' requirement	R14, R16, R21, R23
	Seek information from the market	R16, R18
	Engage with other project parties	R01, R23
	Clarify requirements, seek a solution, and revise scope with client	R01, R12, R16, R19, R20
	Revise plan and operation	R08
	Change contractor	R01, R02, R11
	Seek alternative material	R04
	Extend the schedule	R19, R20, R23
	Increase the budget	R23
	Enhance communication and information management	R04, R12, R16, R19
	Remove the scope or decline taking up the project entirely	R04, R16, R18
	Regular review and meeting with the project manager and team	R08
Mitigate	Choose a more stable supplier	R01, R03, R15, R24
	Conduct more tests and built mock-up of new product	R03
	Reduce scope	R03, R05, R06, R13, R21
	Adopt a less complex design	R09, R14
	Good project management practice and employ an experienced manager	R01, R02, R09
Transfer	Engage a specialist for new technology and specialised scope work	R03, R04, R07, R09, R21
	Generate a comprehensive contractual agreement - transfer liability to client and contractor	R14, R17, R23
	Seek client's ownership of the project issues	R12, R16, R20, R21
	Systematic documentation – shared communication and information management	R01, R03, R04, R08, R11, R24
Accept	Leave to project operation to deal with issues	R10, R12, R23
	Document project issues	R07, R13, R17, R23
	Periodical review	R13
	Establish contingencies to time, budget, or resources	R01, R07, R17, R22, R23

As demonstrated in Figure 6, avoiding project issues is the preferred course of action (42%). This technique was chosen when presented with project issues affecting the organisation's cost, time, and scope. When it comes to project quality issues, the ideal solution is to pass (23%) the responsibility to other parties. This activity is understood as the contractor's and supplier's quality of work. As a result, the respondents shifted the blame to them.

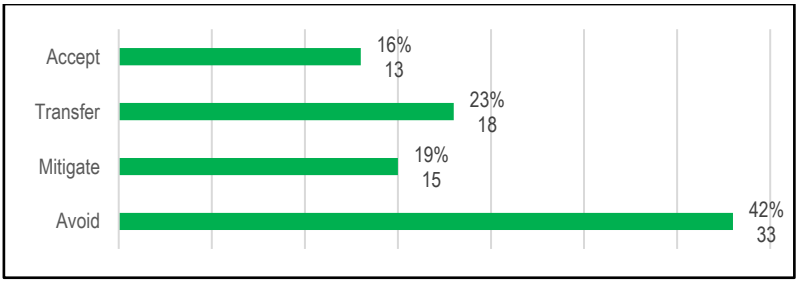

Figure 6: Suggested treatment techniques for occurring project issues

Meanwhile, accepting (16%) project issues is the preferred course of action when the issues involve stakeholder displeasure. The technique was utilised when project issues were unavoidable; no options for lessening the impact existed, and the issues were not transferable to others. Given how unclear and difficult it is to manage stakeholder unhappiness, this behaviour is understandable. As a result, the responders allowed for project issues while closely monitoring them and preparing for contingencies.

The responses may recommend appropriate treatment options for the issues by preventing them, minimising their impacts, or shifting them to lessen their implications. It contradicts the initial action treatment described in part 4.3 that they choose to do nothing in the face of foreseeable issues. Further investigation is necessary to establish the explanations behind these phenomena of diverging actions.

4.5 The Need for a Management System to Control Project Issues Beforehand

The interviewer explained to the respondents that a projected occurrence that can cause an issue to arise is a project issue. The respondents' comments sought a management system to control the project issues in the future. Their responses were classified into three categories, as illustrated in Figure 7.

The majority, 71% of the respondents, highly agreed to a management system application to spot project issues earlier and manage them methodically. According to R02, R05, R06, R15, and R19, today, the projects rely on the project managers' experience to forecast and control the project issues. R01, R06, R12, and R15 added that the existing procedure leaves the projected project issues unattended and leaves it to the project operation and project manager's experience to deal with them. R12 and R15 indicated that,

based on their experience, landscape projects do not manage issues efficiently compared to other industries.

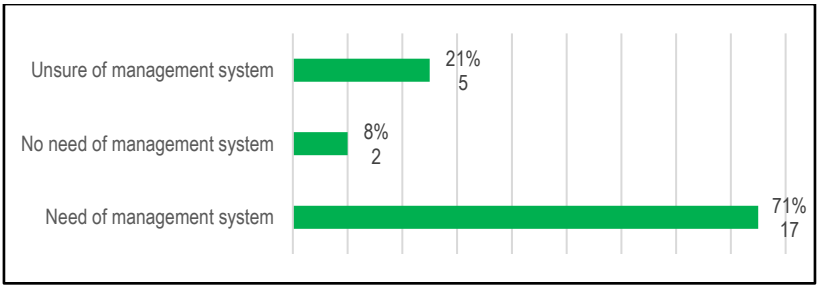

Figure 7: Need for a Management System

Only 2 (8%) out of 24 respondents said that they did not need any new management system at the moment. They asserted that the existing operational approach was sufficient to manage the project issues beforehand. R17 said they relied on project managers' experience to tackle the project issues. Meanwhile, R20 was concerned that over-dependence on a management system will be time-consuming, costly, and restrict corporate creativity. R20 remarked that the local industry's current culture and ethics would confine any management system structure.

The remaining five responders (R03, R07, R09, R16, and R23) were doubtful whether the management system application was needed at present. R07 and R23 expected actual management system testing before deciding its necessity.

5.0 Discussion

Generally, project issues can be avoided if the project can predict and treat them in advance. This result was confirmed through in-depth conversations with landscape professionals. The prediction and treatment actions (refer to subsections 4.2 and 4.3) and suggested treatment strategies (refer to subsection 4.4) for the actual project issues are summarised in Figure 7.

The project issues were predictable, related to the practical challenges, and identified stakeholder considerations. The research revealed that respondents predicted 89% of project issues in advance. Despite their ability to predict issues in advance, they did not resolve them. Only 11% of anticipated issues are addressed quickly, as indicated by the project manager. Over 59% of the projected issues were not addressed. It was allowed to occur and was left to the project operation team to resolve.

Additionally, the projects proposed a treatment method for each issue, proving their capacity to take immediate action rather than inaction. Effectively, 42% proposed disregarding the project's issues to remove them. Another alternative is to lessen the

issues' impact by either minimising their repercussions (19%) or transferring their liability (23%) to others. Only 16% proposed resolving project issues using contingency planning.

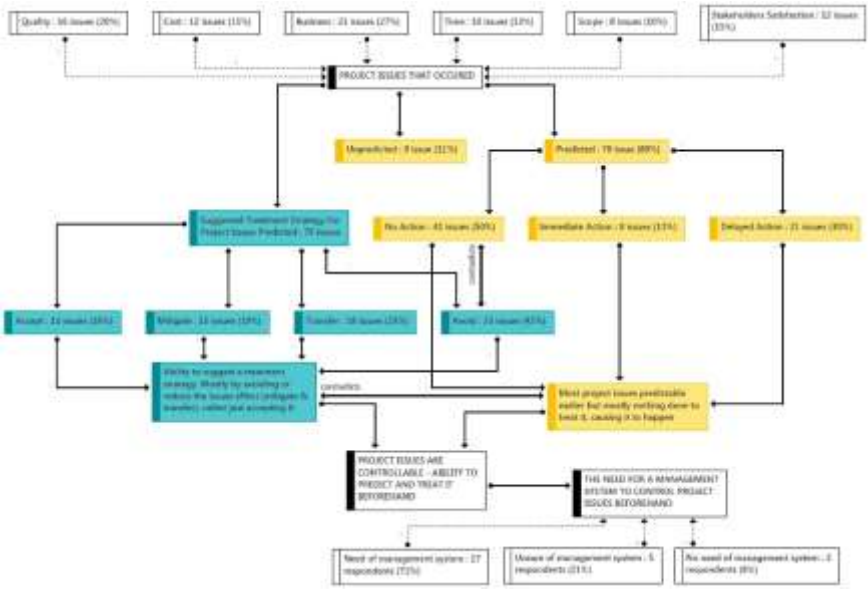

Figure 8: Controllability of project issues

The responders overwhelmingly agreed that the project issues were controllable. The findings reveal that landscape architecture projects are manageable by forecasting and recommending viable treatment techniques to manage the issues in advance. This finding validated the preliminary study findings and was confirmed by Hillson (2018). Spacey (2016) proposes that project issues are manageable by early prediction, strategising a treatment approach, and successfully implementing the strategy. However, the existing project culture suggests that despite their ability to forecast project issues, little quick action is made to remedy the issues and generally leave it to the project operation team to handle them. Adding to this phenomenon, despite the project's ability to recommend an appropriate treatment action by avoiding, minimising, and transferring the issues, this strategy was not appropriately applied during the project progression. This move caused project issues to happen repeatedly and impacted project performances. Bugayenko (2019), Hillson (2018), and PMI (2017) all concurred, noting that project issues are controllable with proactive risk management. Currently, the project is managed with more to issue-focused rather than risk-focused.

The study highlights the need for an effective management system for controlling the project issues beforehand. This proponent concluded by analysing the underachievement

of projects' business objectives, the controllability of issues, and the interviews' responses (refer to subsections 4.5). An appropriate management system is needed to handle a project risk before it potentially becomes a project issue later. Although a professional landscape architect possesses excellent design and technical knowledge, a management system is needed to systematically warn them of potential issues, quantify the consequences, and determine appropriate actions to control the issues with the best available tools and techniques.

6.0 Study Limitation

The following are the study's limitations. First, the study limited the case study interviews to landscape architecture practitioners, although this was not intended to lessen the significance of other practitioners' viewpoints. Second, the case project issues revolved around a preference for urban landscape architecture as a backdrop; no other location was chosen. Thirdly, the study focused on project management within the landscape project lifecycle process, from inception through handover, but not on the complete project lifecycle.

7.0 Conclusion

The study examined the projects' ability to prevent and treat project issues in advance by examining their ability to predict and treat issues. Most project issues were anticipated by thoroughly reviewing the project's challenges and thoroughly understanding the stakeholder factor during the project's early stages. Despite the project's ability to recommend effective treatments, most anticipated project issues were not addressed due to inevitable roadblocks. The projects took no action to address the anticipated issues, and it was left to project operations to resolve them later. In summary, the project issues could have been controlled before their occurrence but were allowed to occur. It was compromising the project's objectives due to inadequate or non-treatment before the occurrence of the issues.

This study recommended that issues be controlled earlier by adopting a management system to predict potential project issues, assess their consequences, and treat them systemically to achieve the project's objective. This systematic process is referred to as risk management. Risk management should improve control over project issues in advance by identifying, assessing, and treating them early. This application will resolve project issues more quickly and more manageable. Controlling project issues enables the achievement of project objectives, thereby enhancing project performance. It will directly enhance the landscape environment to improve dwellers' quality of life.

It is recommended that additional research be conducted on risk management practices in landscape architecture projects. Landscape architecture project practitioners must manage risk to effectively minimise project issues in the future.

Acknowledgement

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Article Contribution to Related Field of Study

This study strengthens lessons learned to improve the landscape architecture body of knowledge, the controllability of project issues, improve project practitioners work culture, and prepare for future endeavours. Additionally, the research will yield a practical contribution by providing insights into applying risk management to landscape project management.

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