

The Procurement Method Used for Maintenance in Public Park: Local Authority Perspectives

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Abstract: The procurement method is one way that is used to gain a bond between a client and a contractor. There are three types of procurement method, open tender, selective tender and negotiation tender. Regardless the types of procurement method, it is significant to select the appropriate procurement method for the maintenance of a public park. Thus, the proper selection of procurement method will be determining the project successfully. The idea to identify the method of procurement is because of the gap of knowledge in term of maintenance in public park. The study aims to determine the best procurement methods for maintenance in public park according to the local authority's perspectives. There are two objectives for this study: to identify the current type of procurement method used for the maintenance of a public park, to determine the criteria contribute to the selection of procurement method utilized for the maintenance of a public park. An in-depth interview with the semi-structured question has been used as methodology and gains the data from three local authorities in Malaysia. The findings showed that all respondents used the same procurement method which is open tendering for the maintenance in a public park. While the criteria that contribute to the selection in the open tender are client's requirement and scope of research or project characteristics. Therefore, this study suggests that local authorities should undertake comprehensive technique to recognizing the best procurement method for maintenance in public park.

Key words: Procurement method, maintenance, public park, local authority, in-depth interview, qualitative data

INTRODUCTION

The procurement system in Malaysia can divide into three systems which are a direct purchase, tender (open tender and close tender/quotation) and direct negotiation (Hui *et al.*, 2011). Procurement is defined as "an organizational system that assigns specific responsibilities and authorities to people and organization" while maintenance procurement as "the process by which required maintenance research are carried out" (Chua *et al.*, 2015). The objectives of public sector procurement are the same as the private sector and many researcher define procurement objectives as to purchase the right quality of material at the right time in the right quantity from the right source at the right price (Adil *et al.*, 2014). The procurement decision greatly impacts the performance of any project regardless of project delivery method (El-Wardani *et al.*, 2006). Procurement system of a project is a key factor which contributes to the overall client satisfaction and project success (Jin *et al.*, 2014).

Improving the universities building maintenance management system by selecting the most appropriate procurement method is significant if universities wish to provide a conducive learning environment and research center for university organization, students, faculty members, parents and other users (Jin *et al.*, 2014). The same situation goes for the maintenance of a public park. With the most appropriate selection of a procurement method in maintaining the public park, it will help to ensure that the public park well maintained for the comfort of the visitors. Most of the previous studies focus only on the procurement method used for the maintenance of a building, therefore, there is a gap of knowledge regarding procurement method utilized for the maintenance of the public park. Due to the situation, this study has been conducted to explain more on the method of procurement used for the maintenance in public park.

Maintenance of public park is also a daily activity that needs to be done by the personnel to provide a comfortable condition for the visitors. The care of a public

park varies from the synthetic element and the natural ingredient. Thus, a specialized maintenance team needs to be appointed to run the maintenance of the public park. Neglect of maintenance can also become a fire and safety hazards which could result in being legally liable for any injuries (Wahab *et al.*, 2013). It is indeed very vital to develop a systematic approach that can assist the maintenance personnel in decision making on selecting the most appropriate procurement method for a particular building (Chua *et al.*, 2015). In this situation, park managers should be making the best selection of procurement method used for the success of the maintenance research in the public park. With the most appropriate procurement method choose, it will help with the success of the maintenance research in the public park.

In public park maintenance, it is a process which requires the maintenance team to maintain the human-made and the natural element that exists in the park. Adnan *et al.* (2012) mentioned that maintenance aspect needs to be part of a project. To the run the maintenance research, the specific person needs to be appointed to ensure that it is well maintained according to the required specification for the comfort of the visitors. A large number of different types of procurement method has been developing to overcome the weaknesses of the existing procurement method (Chua *et al.*, 2015). In this study, the focus is on the method of procurement for the maintenance of a public park. The government procurement system is part of this conversion process, from the collection of funds to the successful implementation of projects (Hui *et al.*, 2011). Procurement documents are required primarily to solicit tender offers and to form the basis for a contract (Watermeyer, 2004). An effective procurement system would therefore, ensure as little leakage from the system as possible (Hui *et al.*, 2011).

In this situation, there are many parks in the area of Shah Alam, Putrajaya and Petaling Jaya that are well maintained to ensure that the facilities amenities and the natural elements are well maintained and it gives comfort to the visitors. The practice of procurement selection available is rather unstructured and unplanned. The decision of procurement greatly impacts the performance of any project regardless of project delivery method (El-Wardani *et al.*, 2006). Therefore, what is the current type of procurement method used for the maintenance in public park.

Procurement system of a project is a key factor which contributes to the overall client satisfaction and project success (Jin *et al.*, 2014). The project success depends on the selection and use of the most appropriate

procurement. Procurement is vital, since, it sets the basis for cooperation between clients and contractors (Lin *et al.*, 2012). Selecting an appropriate procurement strategy for building maintenance is a very critical decision in building maintenance management (Chua *et al.*, 2015). The same situation applied to the maintenance in public park. It is a very critical decision for the park managers to decide on the most appropriate procurement strategy for the maintenance public park management. The adoption of an appropriate procurement method for maintenance in public park will not only help the proper functioning of the facilities but also in achieving cost savings, higher comfort level and elevated corporate image sustainability of the public park.

Although, numerous studies have identified procurement models and evaluation criteria systems for contractor selection, limited research has addressed the relationship between the use of a particular procurement method and project performance (El-Wardani *et al.*, 2006). Therefore, the adoption of an appropriate procurement method can minimize several risks associated with this process, including the selection of the unsuited design-build team, poor project performance and unsatisfied owner's expectations concerning the project (El-Wardani *et al.*, 2006). In this study, the park managers need to decide the most appropriate procurement method for the maintenance of a public park as the adoption of a suitable procurement method can minimize several risks associated with the project performance regard to the project. Therefore, what are the criteria that contribute to the selection of the current procurement method. Thus, the objectives of this study are to identify the current type of procurement method used for the maintenance of a public park to determine the criteria contribute to the selection of procurement method utilized for the maintenance of a public park. The contribution of this study will identify the best procurement method used for the maintenance in a public park based on respondent's perspectives.

MATERIALS AND METHODS

The procurement method used in public park: Procurement system of a project is a key factor which contributes to the overall client satisfaction and project success (Jin *et al.*, 2014). A large number of different kinds of procurement methods have been developed to overcome the weakness of the existing method. The task of selecting the most appropriate procurement method for the maintenance of public park becoming more challenging as the number of different kinds of procurement methods developed had increased. The

procurement system in Malaysia can be divided into three systems which are a direct purchase, tender (open tender and close tender/quotation) and direct negotiation (Hui *et al.*, 2011).

Traditional methods of procurement have been heavily criticized for their sequential approach to project delivery as they have contributed to the so-called “procurement gap” whereby design and construction processes are separate from one another (Love, 2002). Also, the difference of procurement (between design and construction) is considered to inhibit communication, coordination and integration among project team members and can adversely affect project performance (Love, 2002). Subsequently, many different types of procurement methods have been developed to overcome the weaknesses of the existing procurement method and meet the range of service’s requirement (Chua *et al.*, 2015). Sustainability has become a recognized prerequisite of project development and funding, expressed both concerning environmental preservation and intergenerational benefits (Roumboutsos, 2010). Therefore, projects need to appraise concerning costs and benefits addressing both socio-economic and environmental impacts (Roumboutsos, 2010).

The types of procurement method for building maintenance include the direct labour or in-house, outsourcing, out-tasking, public-private partnership, total facilities management, traditional and partnering. Thus, this situation reflects with the maintenance in public park. The maintenance projects mostly adopted a traditional method of procurement where the lowest tender price will be selected. The decision of procurement greatly impacts the performance of any project regardless of project delivery method (El-Wardani *et al.*, 2006). In this situation, the choice of procurement procedure in the maintenance of the public park is important as it helps to ensure that the maintenance research can be done on a regular basis without having any problem between the client and the contractor.

The procurement method in general overview: The procurement system in Malaysia can divided into three systems which are a direct purchase, tender (open tender and close tender/quotation) and direct negotiation (Hui *et al.*, 2011). Procurement system of a project is a key factor which contributes to the overall client satisfaction and project success (Jin *et al.*, 2014). Ng stated that, project success depends on the selection and use of proper procurement strategy.

Ratnasabapathy and Rameezdeen (2010) highlighted that it is strategically essential to make sure the selection of procurement method is made systematically and

in closely controlled manner. Many clients select procurement method in a cursory way simply based upon the biased conservative decision and experience (Jin *et al.*, 2014). Tenders often encountered in maintenance projects where the client invites the various contractors to tender for the research that needs to be done. To invite various contractors to tender for the project, the client may choose one of the procurement procedures available in delivering the tender.

Negotiation: A negotiated tender is effectively a single-stage tender with a single contractor who returns with an initial price. Direct negotiation should be considered only when necessary in which it would be exempted from open tender (Hui *et al.*, 2011). This approach suitable when the client believed that the contractor possesses skill or experience relevant to the project based on the latter’s reputation and recommendation. It is mainly due to important purchase and there is only one supplier, thus, no price and specification comparison could be made (Hui *et al.*, 2011). The benefit of this route is the speed with which a price can be obtained for the research. Negotiation can be considered under a specific condition such as:

- The established business relationship between client and contractor
- Quality and not the economy is a major determinant
- A continuation contract based on the first contract
- An additional contract where the contractor is already on the site
- The contractors have special expertise relevant to the project
- Contractor’s contribution required concerning design or programming

The outcome of this method includes:

- Cut down time and money on tendering
- Completed design documentation is not necessary for research to start and the contractor’s skill brought into the design process
- The absence of competition, so, the tender sum may be higher

By using negotiated tender for maintenance in a public park, the client may have a continuation of the contract with the contractor based on their first contract. Despite that the contractor who has been approached to negotiating tenders, they may possess special expertise relevant to the project that is being tendered. In public park, it is important to have a maintenance team that has the skills is maintenance research regardless of the

facilities and amenities available in the park. Hiring a contractor with special expertise ensure that the maintenance of the public park is well done without having any problem.

Open tendering: Open tender involved all tenders received from contractors who were registered with MOF notably for products and services, coupled with those contractors who were listed under Construction Industry Development Board (CIDB) Malaysia and Contractor Service Center (Othman *et al.*, 2010). In the open tendering, any contractor who meets the specified requirement to carry out the proposed project is allowed to submit a tender for the research. Open tendering is commonly used by the government agencies to ensure accountability of public funds. Complete design documentation is necessary to enable accurate bidding. The outcome of open tendering includes:

- It will attract a large number of tenders and the bids are expected to be more competitive
- The lowest possible price will be obtained even though the experience and the financial standing of such contractor are suspected
- This method will allow new firms an opportunity of tendering research
- The problems of selecting best tender from a wide range of tenders

Open tender deters serious bidders, unwilling to undertake the costly preparation of a considered tender with the low bid likely to be submitted by an inexperienced contractor and with the possibility that such a bid may be accepted. Open invitations either to tender or to pre qualify are given only by clients such as public bodies or recipients of proper funding who have special needs to be seen to be fair and open. Commercial clients choosing the tender routes are likely to have a list of the preferred tendered, bringing their list up to date from time to time.

In this method, the client will advertise the project to all the contractors. In this situation, only the contractors that fulfill the requirement are being evaluated to have the project. For maintenance in a public park, open tender helps the client to have more choices before selecting the best contractor to run the project. By having more options of contractors they have the benefits of choosing only the best contractor regardless of the maintenance project in a public park.

Selective/restricted tendering: In this tender method, only a limited number of contractors who fulfill certain criteria are invited to tender. The selection is made prior to

tender invitation. The criteria often required the general experience of the type of project contemplated, financial ability and also from the managerial and technical capabilities. Selective tendering procedures are similar to those for open tenders except that the client pre-selects qualified firms who invited to submit tenders.

In selective tendering, it can approach in two stages:

- For the first stage an advertisement can be published inviting suitable firms to prequalify for tendering. The tenderers will have to supply information about their previous experience, physical resources and financial standing
- After which the client will invite only a small number of the pre-qualified contractors to submit their tenders

The outcome of this tendering method is:

- The higher quotation submitted because of less competition but it is also because of the high caliber of the tenderers
- This method ensures the lowest price from the contractors who are capable of doing the research
- The cost of tendering was reduced

In this type of procurement method, only several contractors selected before the scope of the project being delivered. Maintenance of a public park requires a contractor to have special skills and experience regardless of maintenance. In this method, the client has the power to select only the contractors that fulfill the requirement to ensure that the project delivered can be done according to their requirement. This method helps the client to consider the lowest price made by contractors and they can complete the project without having any difficulties.

The criteria in selecting procurement method: The task to select the most appropriate procurement method for a specific building becoming more challenging as the number of different types of procurement methods developed had increased (Chua *et al.*, 2012). The implementation of appropriate procurement method will benefit the proper functionality of the building such as the mechanical, electrical elements, cost savings, comfort level, generate higher income rent of the building space and increase corporate image as well as the sustainability of the building. This situation reflected in the selection of procurement method for the maintenance of a public park.

To select the procurement method for the maintenance of a public park, the client should ensure that

they take into consideration on several criteria. It helps them to deliver the project by using the most appropriate procurement method for the project. An effective procurement system would ensure as little leakage from the system as possible (Hui *et al.*, 2011). By choosing the most appropriate procurement method for maintenance of a public park, it will help to ensure that the project is a success instead of failure in running the project.

The maintenance in public park: National Recreation and Park Association (NRPA) standards identify six levels of maintenance that vary from highest 1-6 (Anonymous, 2016).

Level 1: The reserved for special, high-visibility areas that require the highest level of maintenance.

Level 2: That is normal which one expects to see on a regular and desired to maintain the standard.

Level 3 and 4: It is just below the norm and result from staffing or funding limitations. The standard of maintenance is below level 2. Examples include any data area within an existing park that has been allowed to return to a natural state through a “no-mow” policy.

Level 5: This level is one step before the land is allowed to return to its original state. Examples would include old agricultural fields that are mowed once or twice a year.

Level 6: The land that is allowed to return to its original natural state or that already exists in that state.

The dictionary defines maintenance as follows: The research of keeping something in proper condition, upkeep” (Sullivan *et al.*, 2010). Therefore, the maintenance should be taken to prevent a component from failing or to repair to keep it in proper working order. Logically, an effective maintenance program, supported by these four essential elements begins with equipment history (Anonymous, 2015).

An appropriate maintenance management is essential in-order to maintain the infrastructure facilities (Adnan *et al.*, 2012). The maintenance of a public park is vital as it helps the park to maintain facilities and amenities for the user’s comfort and satisfaction. Despite maintaining facilities and amenities, maintenance of the natural element is also important. All six levels of maintenance are necessary for a public park as public park act as an area for people to spend their free time to do

recreation regardless of the obligation in daily life. Demands by the public as stakeholders and taxpayers regarding the maintenance of public infrastructure need to be addressed and serious actions need to be taken (Adnan *et al.*, 2012). Therefore in this situation, it is crucial for the client to select the most suitable procurement method for the maintenance of a public park as it helps to ensure that the maintenance research can be done without any difficulties by the contractors.

Types of maintenance in public park: Maintenance can be classified into two. The first one is planned maintenance and the other one is unplanned maintenance. Under this type of maintenance, it has been narrowed into four categories.

Preventive maintenance: Preventive of maintenance is predetermined research with the aim of preventing the wear and tear or sudden failure of equipment components. Preventive maintenance can be defined as follows an action performed on time or machine run-based schedule that detects, preclude or mitigate degradation of a component or system with the aim of sustaining or extending its useful life through controlling degradation to an acceptable level (Sullivan *et al.*, 2010). In preventive maintenance an operation scheduled need to be prepared. Preventive maintenance activities consist of inspection, cleaning, lubrication, adjustment and/or replacement of sub-components that wear-out.

A preventive maintenance strategy is most appropriate when assets meet one or more criteria. In this study, assets can capture under a service contract for example landscaping. Preventive maintenance in public park helps to ensure that the facilities and amenities were taken care off before it is entirely damaged. Preventing in facilities and amenities contribute to reducing the cost of maintenance research in the public park.

Predictive maintenance: The predictive maintenance programs measure equipment on a regular basis, track the measurements over time and take corrective action when the equipment is operating limits. This maintenance strategy is based on monitoring and measuring the condition of the assets to determine any fail during some future period and then taking appropriate action to avoid the consequences of that failure. There are few advantages of predictive maintenance. The benefits include increased component operational life or availability, better quality product, improve worker and environmental safety, estimated 8-12% cost savings over preventive maintenance programmed.

Predictive maintenance differs from preventive maintenance. Including predictive maintenance in a comprehensive maintenance program optimizes the availability of process machinery and significantly reduces the cost of maintenance. In the maintenance of the public park, predictive maintenance helps the maintenance team to run maintenance on the facilities and amenities if there is a possibility of the facilities and amenities in the public park damaged. As predictive maintenance done, it helps to reduce the maintenance cost of facilities and amenities in public park.

Corrective maintenance: Corrective maintenance is done to return the equipment to working condition after a breakdown or after deficiencies (Adolfsson and Dahlstrom, 2011). According by Campbell and Jardine (2001), corrective maintenance is more costly than preventive, since, preventive can be planned and therefore be executed at a preferred time and date. Corrective maintenance also implies that a company needs to quickly find material and personnel for repair according to Campbell and Jardine (2001), increases the cost (Adolfsson and Dahlstrom, 2011).

In the maintenance of a public park, the contractor should show their commitment concerning maintenance research. It is because whenever they are facing a situation that enables corrective maintenance, they should prepare for the possibility of facing an unexpected maintenance need to be at that time. There is a growing consensus among experts that routine physical activity is shaped by local environments and it believed that communities can facilitate physical activity by improving the design of streets, parks and thoroughfares (Cohen *et al.*, 2006).

Therefore in this situation, maintenance is essential for a public park as according to Jabatan Perancangan Bandar Dan Desa (JPBD) guidelines, park function can classify to active recreation, knowledge, culture and social, entertainment and recreation and health. For a park to act according to JPBD guideline, facilities and amenities need to provide in public park and it should be well maintained for the comfort and satisfaction of the users and visitors. Parks that are retained in a proper condition also contribute to local economic, provide greater returns to the community and could potentially host more financially viable concession. As a result of this situation, the most appropriate procurement method for the maintenance of public park should be applied as according by El-Wardani *et al.* (2006), the procurement decision greatly impacts the performance of any project regardless of project delivery method.

Table 1: List of respondents

Name of respondents	Date and time of receiving data
Quantity surveyor	19.05.2016 @ 2.30 pm
Senior assistant director	20.05.2016 @ 10.00 am
Assistant director (Horticulture)	27.05.2016 @ 4.00 pm

Data collection method: Data collection has been made through secondary and primary. For secondary data, it is done through the literature review such as journals, article, books and previous study in the related field. By conducting the literature on the selected secondary data, it helps the researcher to have a clear understanding of the issues and problems arise in this research.

Primary data is conduct through qualitative method. Through the qualitative method an in-depth interview was used to gain the data from the respondents (employee in local authorities) who expertise in the procurement method for maintenance in a public park. Thus, the respondents will select through purposive sampling technique. Table 1 shows the list of respondents for this research.

In the design of questions for an interview with the expert, mostly the questions encounter on the procurement method and the criteria that contribute to the selection of the procurement method used for the maintenance in a public park. The respondent needs to be able to answer the question based on the experience and knowledge regarding procurement method for the maintenance of a public park. The question is divided into four parts mainly consist of a respondent background, procurement method, criteria for the selection of procurement method and also, the opinion regarding procurement method used for the maintenance in a public park. The example of the question are could you briefly explain your background for how long you have been working in this field does your organization make a procurement plan does the public procurement guide your procurement procedures before choosing the method of procurement what are the major concerns pertaining the maintenance research what are the criteria that lead to the selection of the procurement method what would you suggest as a solution to overcome the challenges that encounter in selecting a procurement method if there is an emergency maintenance that needs to be done, does it have to go through the same procedures of the selecting procurement method.

In part of analyzing data, Nvivo 11 Software was used which seemed highly appropriate for qualitative data. The data obtained through a digital recorder were filtered and then those that were not significant were removed. Subsequently, the data analyzed according to the themes that were appropriate for the procurement method used for the maintenance in a public park.

RESULTS AND DISCUSSION

There are three respondents from different local authorities gained for this research. The analysis showed that respondents have various background and position in their organization:

After completing my degree, I worked as the consultant for two years, one year with the contractor and currently working in MBSA for the third year. My position in this organization is as a Quantity Surveyor. I'm involved in making decision regardless of the procurement methods used for the maintenance in a public park as I'm one of the committee members not just for the procurement method for public park but also other research related to procurement method and thus I'm the committee member, I'm directly in charged for procurement method" (Respondent 1)

"I have been involved in this field for almost 23 years and I am the senior assistant director. Frankly speaking, I did not involve in making decision for the procurement method of maintenance in public park and normally, the person in charge, making decision for procurement method will refer to the Ministry of Federal Territories" (Respondent 2)

"It has been about 16 years I am involved in this field. In this organization, I am the assistant officer of agriculture. I did not involve in making decision in regards to the procurement method for the maintenance of a public park but indirectly involve with the preparation of tender document for the procurement method of public park maintenance" (Respondent 3)

In regards to this situation, the analysis showed that all respondents are the professional personality based on their experienced, knowledgeable and most of the respondents are directly involved with the procurement method for the maintenance of a public park.

The type of procurement method used in public park: The questions continue to identify either the respondent's organization makes any procurement plan for the maintenance in a public park.

"In MBSA, there is a procurement plan made. There is one department known as finance department who will provide a budget for the procurement method used for the maintenance in a public park" (Respondent 1)

In our organization, the procurement plan will be referred to the treasury and financial order and also from the department of quantity surveying itself" (Respondent 2)

"Our organization has a procurement plan" (Respondent 3)

The analysis showed that majority of the respondent's organizations has a procurement plan. However, only one of the respondent organizations needs to refer the treasury and financial order and the department of quantity surveying regardless of the procurement plan. Therefore, based on the procurement plan, the question continues to identify either the public procurement guide their procurement procedures:

We refer to the instructions that are issued from the treasury Ministry of Finance and also PWD 2008 from Jabatan Kerja Raya. In PWD 2008, not all the clause was taken. Only certain clause in PWD 2008 was taken" (Respondent 1)

Normally, we will be referring to the treasury act and since we are statutory body, we have the right whether to follow or not on the public procurement guide" (Respondent 2)

There are several public procurement guides being referred" (Respondent 3)

Thus, all respondents stated that there are several public procurement guides which help to guide their procurement procedures. The public procurement guides are the Treasury Act from the Ministry of Finance and also PWD 2008 by Jabatan Kerja Raya.

The questions continue to find either the public procurement regulation plays a major role in the selection of procurement method:

"Each public procurement regulation being referred caused different types of procurement method to be selected" (Respondent 1)

In my opinion, the public procurement regulation has its benefits. With the existence of the public procurement regulation, it will give different types of procurement method for the maintenance of public park” (Respondent 2)

“Well, different public procurement regulation referred gives various types of procurement method selected” (Respondent 3)

In this situation, the selection of procurement method is reflected by the public procurement regulation. Thus, the public procurement will determine the procurement method which is open tender, selective tender and negotiation tender. The question continues to determine the key principles to arrive at an optimal procurement method:

“The main principles needed to achieve an optimal procurement method are value for money. This is because to invest we have to look for a positive result in the future” (Respondent 1)

“In my opinion, the main principles needed to arrive at an optimal procurement method are that we will reflect on the top level management” (Respondent 2)

In my opinion, the main principles needed to arrive at an optimal procurement method are the value for money” (Respondent 3)

The majority of respondents agreed that the key principle of optimal procurement method is value for money. Therefore, the value for money refers to the result of the project in the future which is giving them a profit or loss. The other respondent stated that their organization would reflect on their top-level management to arrive at an optimal procurement method.

The question continues to understand the current procurement method in public parks based on local authorities:

In MBSA the current procurement method used for the maintenance in a public park is Open Tender” (Respondent 1)

“For the maintenance research in public park, our organization used open tender” (Respondent 2)

The current procurement method used for the maintenance in a public park is Open Tender” (Respondent 3)

The analysis showed that the current procurement method utilized for the maintenance in public park is open tender. The public procurement guide helps the organization to classify the type of procurement method that has been used for the maintenance of public parks. It is because each of the public procurement guides will come out with different kinds of procurement method for maintenance in a public park. A part of that, value for money is the key principle needed to arrive at an optimal procurement method. Therefore, the first objective of this study which is to identify the current type of procurement method used for the maintenance in a public park has been achieved based on the respondent’s perspectives.

The criteria for selecting procurement method in public park: In this part, the question will be focusing on the criteria of selecting the procurement method. In order to decide on the procurement method, it is significant to identify any challenges faced by the organization:

I think that there are no challenges in choosing the procurement method and if an emergency situation occurs, direct negotiation will be used” (Respondent 1)

“For me, the only challenge faced is from the political side among the decision maker in selecting the procurement method” (Respondent 2)

For me, there is no challenge faced in selecting the procurement method” (Respondent 3)

The analysis showed that majority of respondents stated that is no challenge faced in selecting a procurement method. However, only one respondent mentioned the only challenge encountered in selecting a procurement method is interference political side in decision maker committee. Despite understanding the challenges faced in choosing procurement method, the organization should also need to identify the most appropriate procedures that need to be taken in order to determine the types of procurement method:

“I will refer to the circular that has been set and will also refer to the treasury instructions” (Respondent 1)

“We will be informed by the financial department and the procedures taken are based on the instructions given by the financial department” (Respondent 2)

“In my opinion, the client’s requirement and the types of project are necessary to identify the types of procurement method” (Respondent 3)

The analysis shows that majority respondents have given different opinions in regards to the most appropriate procedures that need to be taken before identifying the procurement method. The types of procurement are determined by referring to the circular that has been set by treasury instructions. Despite that, the types of procurement are being identified based on the instructions given by the finance department and also take into consideration on the client’s requirement and the type of project.

The question continues to identify the criteria that guide to the selection of the procurement method by respondents:

“The criteria that lead to the selection of the procurement method is the scope of the research itself and also the client requirement” (Respondent 1)

“The main criteria that lead to the selection of the tender is the client requirements and also the scope of research needed by the client” (Respondent 2)

For me, the criteria that lead to the selection of the procurement method is the scope of research itself and also the client requirements” (Respondent 3)

The analysis shows that majority respondents stated that an organization needs to identify the criteria that contribute to the selection of the procurement method. With the criteria, it will be contributed to the selection of the procurement method and will help to the effectiveness of a project. Other than that, the criteria that lead to the selection of procurement method are the scope of research and also client’s requirements. These two criteria help the decision maker to select the suitable procurement method for the maintenance research in a public park. Besides, the procurement method that has been chosen by the organization gives benefits for the maintenance research in a public park. According to the respondents, the benefits can be seen from several perspectives.

“There are benefits regarding the contractor’s reputation and their milestones” (Respondent 1)

“We are giving chances to the contractor to compete in a positive way and we also have the chances to get the most suitable contractor based on their experienced and financial flow” (Respondent 2)

“The benefits are based on the contractor’s reputation” (Respondent 3)

The analysis shows that every respondent has their different perspectives pertaining this question. Two of the respondents said that the benefits of the maintenance work could be seen from the contractor’s reputation. The other respondent stated that they are giving chances to compete in a positive way to choosing the best contractors that suit the requirements.

Therefore, the second objective has been achieved which is to determine the criteria contribute to the selection of procurement method used for the maintenance in a public park. To determine the criteria of procurement method, an organization needs to identify if there are any challenges faced by their organization. An organization also needs to determine the appropriate procedures taken to determine the types of procurement method. To select the procurement method an organization also needs to determine the major concerns pertaining maintenance research in the public park.

CONCLUSION

Project procurement system is a key factor which contributes to the overall client satisfaction and project success (Jin *et al.*, 2014). Ng mentioned that project success depends on the selection and use of suitable procurement strategy. Ratnasabapathy and Rameezdeen (2010) highlighted that it is strategically essential to make sure the selection of procurement method is made systematically and in closely controlled manner. Therefore, this study has two objectives to identify the best procurement method used for maintenance in public park according to of three respondents who directly involved in procurement matter in local authorities. For the first objective, the public procurement guide helps the organization to identify the type of procurement method used for the maintenance of public parks. It is because each of the public procurement guides will come out with different kinds of procurement method for maintenance in a public park. A part of that, value for money are the key principles needed to arrive at an optimal procurement

method. The majority of respondents stated that the current type of procurement method used for the maintenance in a public park is an open tender. Open tendering allows the organization to choose the best contractor in terms of their reputation to ensure that the maintenance research for a public park can be done. By using open tendering, it may help the maintenance research in a public park to be done successfully. The selection of this procurement method contributes to the successfulness of the maintenance research required in a public park.

For the second objective an organization needs to identify if there are any challenges faced by their organization. The most important thing needed to determine in selecting the procurement method is the criteria for selecting the procurement method. Based on the analysis, all respondents gave the same standards that contribute to the selection of procurement method. The criteria that lead to the selection of procurement method are the scope of research and client's requirement. Under the scope of the research or project characteristics, the clients need to consider on the project type, project size, costs of the project, degree of flexibility and the time constraints. This element is an essential element in the scope of research which then reflects the selection of the procurement method. The next criteria that contribute to the selection of the procurement method are the client's requirement. They need to be specific about the capital cost, maintenance cost, pre-qualification and tendering cost, the financial risk, price competition and also need to ensure that the contractor can complete the project within the budget. Both of the criteria reflect the selection of the procurement method as it is very crucial for the decision maker to decide on the most appropriate procurement method to ensure that the maintenance research is done efficiently and effectively. The procurement decision greatly impacts the performance of any project regardless of project delivery method (El-Wardani *et al.*, 2006). Therefore, they need to ensure that the best procurement method selected as it will help to ensure that the maintenance research in a public park can be done efficiently and effectively. Nevertheless, the necessity of in-depth study is highly required to determine the best procurement method for maintenance in public park.

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