

Procurement Strategy for Facility Management Improvement in PT MBI Tbk

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The aims of this study are to determine the major challenges and root cause in facilities management and to recommend solutions to solve the major challenges in PT MBI, which can also be extended to other manufacturing company. The research employs qualitative method to obtain information and opinion from competent stakeholders through interview. Root cause analysis is determined by mapping the primary data obtained from the interview and extracted into keyword. This study finds there are 6 major challenges and root causes causing the issues in facility management, which are communication and close coordination gap, multiple vendors, unprofessional vendor, poor experience development and training, no SLA and report standardization, and complex scope and activity. The result of this study indicates that PT MBI should conduct tender to implement total facilities management (TFM), create more stringent vendor selection criteria, experienced personnel and regular training, involve users to create SLA, KPI, and report, setup regular meeting structure, and review internal SOD and create proper contractual agreement. The implication of the result indicates the importance of internal processes to trigger facilities management and operation improvement in a company.

Keywords: Facility Management, Procurement Management, Project Management, Total Facilities Management

JEL Classification: H32, L14, L29, L66, M19

INTRODUCTION

Manufacturing industry is an important component of the economic sector in most of the countries, including Indonesia. The development of the manufacturing industry in a country can be used to see the national industry development in that country. When the industrial sector is good, a country can increase its export activities and reduce import activities, which can contribute to positive income for the country. Manufacturing industry consists of 3 industries: basic industry and chemicals, miscellaneous industry and consumer goods industry.

PT MBI Tbk (PT MBI), one of a manufacturing company, is a public listed company in the food and beverages sector (part of consumer goods industry). PT MBI is a producer of both alcohol and non-alcohol beverages which has 2 plants in Indonesia. As a manufacturing company, it is important for PT MBI to manage its plant facilities well. Since PT MBI outsourced all of its facilities management to some vendors, researcher will study its facilities management operations.

As a company in manufacturing industry, its real estate acquisition including facilities such as manufacturing facilities, warehouses, and logistic centers can be said to be significant (Oladokun, 2013). In order to stay profitable, it is important for a company to manage its operational properly. Facilities management can be used to help business maximize returns on investment and establish long term competitive advantages in the marketplace. It is necessary for business to achieve maximum output from their facilities in order to reduce building life-cycle costs and maximize profits. (Kurdi et al., 2011). According to Rondeau *et al.* (2006), facility management is known primarily by its effects, principally acquisition, design, construction, maintenance, and operation and support services for in-house customers and the physical facilities.

Facilities management can be divided into 2 basic areas, which are hard-services facilities management and soft-services facilities management (Wilson, 2018). Hard-services facilities management deals with physical assets such as heating and cooling, elevators, mechanical, electrical, construction, building operations maintenance etc. While soft-services facilities management focuses on task performed by people such as security services, pest control, cleaning, landscaping, catering, etc. Due to large scope in facilities management, some companies decide to outsource partial or even all of these facilities management scopes to facility management providers so that the companies can focus on their business operations.

However, outsourcing of this huge scope to the vendors may create some issues in both operational issue and technical issue, which happened in PT MBI. Operational issues may consist of too many vendors to coordinate with, too many contracts and invoices to be handled, and other administrative challenges. While technical issues may consist of no SLA and way of working standardization amongst the vendors, unprofessional vendors, and lack of inspection control. Based on the above problems, this study aims to determine the major challenges and root cause in facilities management in PT MBI and to recommend solutions which can be also extended to other manufacturing company.

LITERATURE REVIEW

Outsourcing

Outsourcing is the act of moving some of a firm's internal activities and decision responsibility to outside providers. The terms of the agreement are established in a contract. Outsourcing goes beyond the more common purchasing and consulting contracts because not only are the activities transferred, but also resources that make

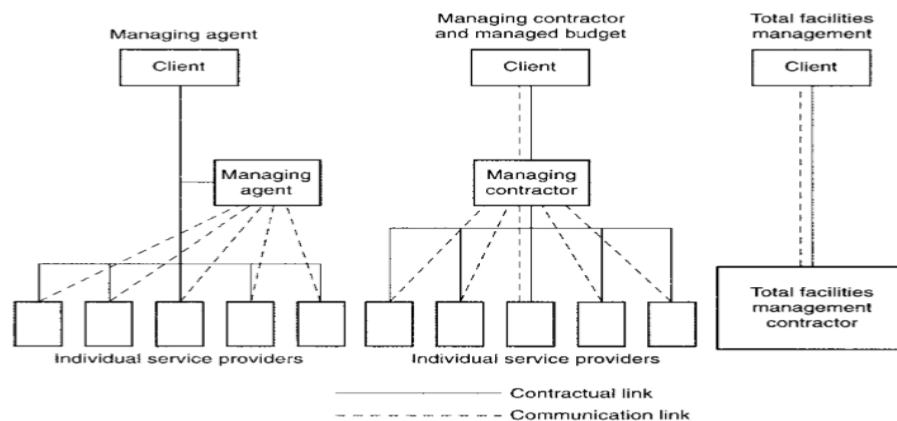
the activities occur, including people, facilities, equipment, technology, and other assets, are transferred. The responsibilities for making decisions over certain elements of the activities are transferred as well. Outsourcing allows a firm to focus on activities that represent its core competencies. Thus, the company can create a competitive advantage while reducing cost. An entire function may be outsourced, or some elements of an activity may be outsourced, with the rest kept in-house (Jacobs and Chase, 2018).

Facilities management

According to Atkin and Brooks (2009), facilities management is defined as an integrated approach to operating, maintaining, improving and adapting the buildings and infrastructure of an organization in order to create an environment that strongly supports the primary objectives of that organization.

In terms of the services model for facilities management, there are 4 types of service provider arrangements in the market place which can be implemented by a company as per the Figure 1 below.

Figure 1. Four Different Types of Contractual Arrangement



Source: Atkin and Brooks (2009)

1. **Managing Agent:** This arrangement is adopted when the organization has determined that it does not wish to hand over control of its facilities to a contractor, yet does not have the skill or expertise with which to manage them efficiently and effectively. By bringing in an external organization to manage the facilities, the organization is essentially appointing a client representative.
2. **Managing Contractor:** Under this arrangement there is one contract between the client organization and the appointed contractor (primary service provider). Subcontractors (secondary service providers) will be under contract to the managing contractor and so will not have a contractual relationship with the client organization.
3. **Managing Budget:** A managing contractor which also takes responsibility for the payment of all suppliers and provides a consolidated invoice at the end of each month.
4. **Total Facilities Management:** Under this arrangement, the client organization is able to pass the full responsibility for managing its facilities to a single organization for a fixed price. This does, however, require the organization to provide the contractor (service provider) with sufficient scope to be able to manage the various services efficiently. The total facilities management contractor may be better able to offer a more complete and competitive solution to an organization's needs than in the case of the managing agent or managing contractor. Total facilities management can provide a sound solution, but only if the organization is prepared to spend time in identifying the right basis for such an arrangement and then in selecting the best contractor.

Total facilities management is defined as the responsibility for providing services and for generally managing the facilities is placed in the hands of a single organization (Atkin and Brooks, 2009).

RESEARCH METHOD

This research uses qualitative method to collect reliable information, insight, and opinion from competent stakeholders. Data collection for this research is defined in 2 categories, primary data and secondary data. Primary data will be collected by interviewing several key persons/employees in three departments in PT MBI: Procurement, Engineering, Human Resources while secondary data will be collected from books, journal articles, and website.

Respondents for the interview are chosen from selected stakeholders that involved directly and have a significant role in the day-to-day operation of the facilities management. Procurement department is selected due to Procurement is the one which manages the relationship with the suppliers and process the transaction. Engineering and HR department are selected due to these both departments are the users of facility management. While management (finance director) is selected in order to see the management and finance perspective. Table 1 shows the interview respondent's position and years of experience in the industry.

Table 1. Interview Respondent

No	Respondent Initial	Department	Position	Experience in the Industry
1	YW	Procurement	Buyer and Contract Executive	More than 8 years
2	AN	Procurement	Buyer and Contract Executive	More than 15 years
3	IS	Procurement	Procurement Category Manager	More than 20 years
4	TP	HR	HR Officer	More than 5 years
5	AS	HR	HR Brewery Officer	More than 5 years
6	EB	HR	HR Operations Manager	More than 7 years
7	ES	Engineering	Facility Maintenance Engineer	More than 7 years
8	IE	Engineering	Engineering Manager	More than 8 years
9	SA	Management	Finance Director	More than 20 years

Interview was conducted based on interview questions which were set differently for Procurement department and the users (Engineering department and HR department). The interview questions are tailored with the expectation to obtain sufficient, objective, and important information related to the understanding of the business process, major challenges of facilities management, how they manage the challenge, and their recommendation of solution.

RESULTS

Based on the interview, the findings are divided into several categories which are super category, category, sub-category, and sub sub-category. Super category consists of 3 main problems: technical, operational, and strategic. The category and sub-category were group based on the most similarity of the keywords mentioned by the respondents (sub sub-category). Findings from the interview are mapped based on the number of repetition of keywords mentioned by the respondents.

The interview result is developed using structural coding methods by determining frequencies on the basis of the number of individual participants who mention a particular theme, rather than the total number of times a theme appears in the text. A code

frequency report can help identify which themes, ideas, or domains were common and which rarely occurred. (Saldana, 2009). There is total 25 keywords mentioned by the respondents. Table 2 shows the number of repetitions of every category.

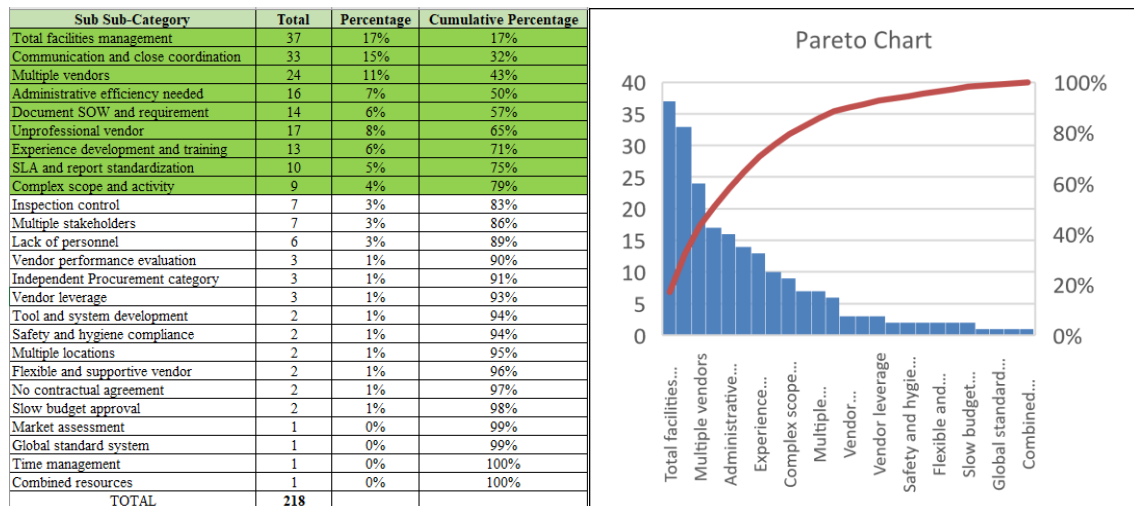
Table 2. Mind Mapping of Interview Result

Super Category	Category	Sub-Category	Sub Sub-Category	Procurement			HR			Engineering		Management	Total
				YW	AN	IS	TP	AS	EB	ES	IE	SA	
Technical	SOW and SLA	Scope and SLA management	SLA and report standardization	-	2	-	4	-	4	-	-	-	10
			Complex scope and activity	5	-	3	-	-	-	-	-	1	9
		SOW and requirement assessment	Document SOW and requirement	-	1	6	2	-	2	-	3	-	14
			Market assessment	-	-	-	-	-	1	-	-	-	1
	System and compliance	System and compliance	Tool and system development	-	2	-	-	-	-	-	-	-	2
			Global standard system	-	-	-	-	-	1	-	-	-	1
			Safety and hygiene compliance	-	-	-	-	2	-	-	-	-	2
Operational	Controlling	Control management	Inspection control	-	2	-	3	1	-	1	-	-	7
			Multiple locations	2	-	-	-	-	-	-	-	-	2
		Time management	Time management	-	-	-	-	-	-	1	-	-	1
	Vendor management	Multiple vendors	Multiple vendors	7	2	1	6	1	3	3	-	1	24
			Unprofessional vendor	-	11	-	-	1	1	1	-	-	14
		Vendor assessment	Flexible and supportive vendor	-	-	-	-	-	2	-	-	-	2
			Vendor performance evaluation	-	-	3	-	-	-	-	-	-	3
	Communication management	Communication management	Communication and close coordination	1	5	4	8	2	7	2	3	1	33
			Multiple stakeholders	5	-	2	-	-	-	-	-	-	7
	Administration	Administration	Administrative efficiency needed	2	-	2	1	4	1	1	5	-	16
			Slow budget approval	-	-	-	-	-	-	1	-	1	2
			No contractual agreement	-	-	-	-	-	-	2	-	-	2
Strategic	Procurement strategy	Tender	Total facilities management	5	2	8	4	1	7	4	5	1	37
			Vendor leverage	1	-	-	1	-	-	-	-	1	3
		Category mapping	Independent Procurement category	1	1	-	-	-	1	-	-	-	3
	Resource strategy	Resource management	Experience development and training	-	-	-	-	11	-	-	-	-	11
			Lack of personnel	-	1	-	-	2	-	3	-	-	6
			Combined resources	-	-	-	-	-	-	-	1	-	1

Researcher uses Pareto chart to select the major findings. The Pareto chart is based on the Pareto principle: 80% of effects are the results of 20% of causes. A Pareto chart is an effective tool for determining which quality problem should be addressed first. Generally, either the most common failure or the costliest failure should be addressed first (Barsalou, 2015). Table 3 shows the frequency for each sub sub-category, the

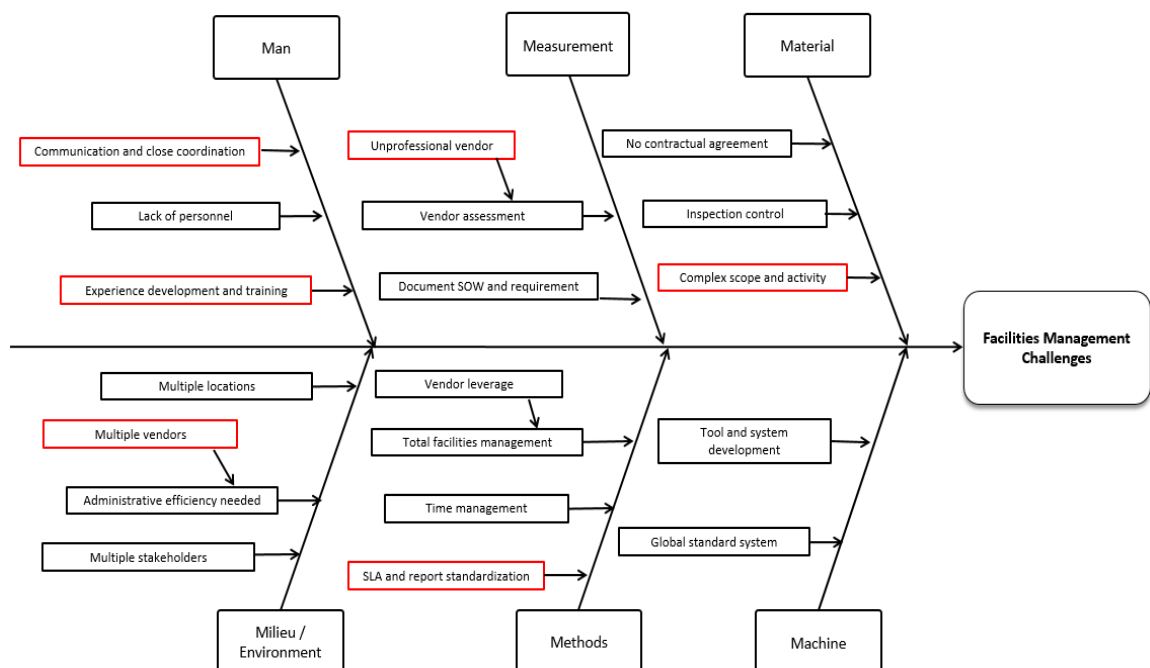
percentage, and cumulative percentage. Based on Pareto principle, the minimum of 9 times being mentioned (sub sub-category) becomes the major findings, which has accumulated 79% of the issues. Hence it is decided 9 Sub-Sub category as the major findings.

Figure 2. Interview Result Frequency (Cumulative) and Pareto Chart



Finally, researcher utilizes *fishbone diagram* for the root cause analysis. Through this diagram, researcher analyzed the respondents' answers and mapping process to identify the root cause of the major challenges in facilities management. This framework is an efficient tool to identify the root cause of the problems by analyzing the cause and effect of some construct as indicated in the research construct.

Figure 3. Fishbone Diagram



From the mapping process and root cause analysis, major findings and root causes can be described as per Table 3 below.

Table 3. Possible Root Cause from Major Findings

No	Findings	Discussion and Remarks	Root Cause	Root Cause Data
1	Total facilities management	The most frequently mentioned construct (37 times) by all 9 respondents, total facilities management is considered as a recommendation and solution to deploy single vendor in facilities management. This construct is not a root cause.	No	-
2	Communication and close coordination	Communication and close coordination are considered as an important thing in facilities management. It is considered as major challenge as well as recommendation for improvement. Hence, this construct is a root cause.	Yes	0 routine meeting
3	Multiple vendors	Multiple vendors is considered as a root cause of challenges in facilities management scope.	Yes	41 vendors
4	Administrative efficiency needed	This construct was mentioned as one of major challenge in facilities management scope where there are lot of administration and hence administrative efficiency is needed. This construct is not a root cause since this was caused by "multiple vendors" construct.	No	-
5	Unprofessional vendor	This construct was mentioned 14 times by 4 respondents as one of major challenge in facilities management scope where there are some unprofessional vendors. This construct is a root cause.	Yes	Some vendors didn't perform as per SLA
6	Document SOW and requirement	This construct is considered as one of the recommendation in facilities management, in order to have a contractual agreement that covers SOW, SLA, KPI, and other important clauses. This construct is not a root cause.	No	-
7	Experience development and training	This construct was considered as one of the challenge where the vendors' personnel don't have enough knowledge and lack of experience. This construct is also a recommendation to build proper training. This construct is considered as root cause.	Yes	Some personnel don't have enough skill and no training being provided
8	SLA and report standardization	SLA and report standardization is considered as major challenge due to there is no standardization and one of the recommendation for improvement. This construct a root cause.	Yes	No SLA and report standardization
9	Complex scope and activity	This construct is categorized as emerging construct where it was not mentioned frequently by the respondents and it was emphasized with different tone. This construct is considered as major challenge and root cause in facilities management.	Yes	There are 21 sub-scope for facility management (9 soft services and 12 hard services)

Hence, it was found there are 6 root causes or major challenges which are communication and close coordination gap, multiple vendors, unprofessional vendor, poor experience development and training, no SLA and report standardization, and complex scope and activity.

DISCUSSION

Communication and Close Coordination

Communication and close coordination are considered as one of the major challenges in facilities management and at the same time it is also a room for improvement. Communication and close coordination are important in a company, especially in an area with very wide scope such as facilities management. Based on the interview result, it was found that there is a communication gap between the vendor's management and its personnel.

This is aligned with Tucker et al. (2017) who found that lack of communicative skill as one of the top findings on the strategic issues for the integration of facilities management into the development process. The research was done in the property development industry in the UK. Oladokun (2013) identified top 3 factors which are considered as challenges of the practice of facilities management in the manufacturing industries in Nigeria: physical factors of different facilities that often necessitated the adoption of different facilities management methods; high level of deterioration arising from late adoption of facilities management; and lack of proper and effective communication skills by managers.

It's useful for the company to setup regular meeting structure. This is aligned with Jensen (2017) who found institution which provides radio, television, and online media services in Denmark has a weekly meeting, monthly meeting, and a quarterly steering group between the C-level to be able to manage its facilities management properly.

Multiple Vendors

Due to multiple vendors, the communication and coordination become more complex. It is also quite difficult in managing the standardization across the vendors and it adds more administrative things.

This is in line with Ventovuori (2006) who found a broadcasting company has objective to decrease its wide service provider base by bundling different services and grouping sites to one supplier due to difficulty in managing administration and transactions among the service providers. Once the service provider base is reduced, the number of transactions among the service providers is also reduced, which makes it easier for the company to coordinate its service provider and monitor the cost and quality.

This construct can be solved through consolidating facilities management scope to a single vendor through a proper tender. This is in line with Ventovuori (2006) who found that when buying facilities management services, the number of service providers can be reduced by bundling different services together or by grouping sites under one contract.

In single sourcing, the buying company decides to have a single relationship with one preferred supplier, who is granted a relatively permanent preferential relationship including a variety of tasks (Cox, 1996) (Ventovuori, 2006). Single sourcing involves the idea of reducing the number of suppliers a company does business with (Zeng, 2000).

Unprofessional Vendor

It was found out that the vendors didn't act based on the SLA, lack of technology savvy, conducting the business in one man show which is risky for the customer, and their management never appear to build relationship. This construct can be solved through replacing the existing vendors and consolidating facilities management scope to a single vendor through a proper tender.

This is aligned with Jensen (2017) who found unprofessional vendors as a challenge in an institution which provides radio, television, and online media services in Denmark. Hence there is a desire of the company's top management to professionalize the property management through a competitive tendering. It was also found that it's important to have a contractual agreement which covers the SOW, SLA, KPI, and any other important or relevant clauses. This view is supported by Hui and Tsang (2004) who mentioned that at the 'service agreement' stage, a detailed service level contract is negotiated. The contract should have clearly defined service standards. There should be

provision for all foreseeable contingencies, including an exit mechanism. Both parties of the contract must be open about their expectation.

Experience Development and Training

It was found from the interview result that there is a lack of knowledge and skill from the current vendors' personnel in doing their tasks. And hence, training and development need to be provided by the vendor to its personnel before the personnel is assigned. This is aligned with Tucker et al. (2017) who found that lack of experience as one of the top findings on the strategic issues for the integration of facilities management into the development process in property development sector in the UK. Kurdi et al. (2011) mentioned that two of the key success features in facilities management are choosing the right outsourcing strategy and its proper implementation. Preferably, the service provider should have the skills to deliver the service with reasonable reliability, certainty, cost effectiveness and on time performance. Jensen (2017) found some serious incident in the hard services scope due to the provider didn't have the relevant competences and resources, as a major challenge in an institution which provides radio, television, and online media services in Denmark.

SLA and Report Standardization

No standardization in vendors SLA and report format has made the user unable to manage the vendors and create confusion on each vendors SLA. On the reporting side, it is also a challenge for the user to analyze or translate their report due to various format by the vendors.

This is also supported by Mustapa et al. (2008) which found the non-existence of standards that can be used to measure the quality level and performance of both traditional and integrated FM applied by the building/property management has become a real challenge in facilities management. One of the factors of facilities management failure is on the tactical failings, which is inadequate performance standards.

As a company, it's important to uniform the SLA for some interrelated works and to create a report format standard which can be followed by the vendor. According to Chotipanich (2004), tactical facilities management involves monitoring, controlling and managing the operational functions of facilities management to ensure they are being done in accordance with organization's standards as it relates to policies, strategies and plan. The operational function involves short-term results on a day-to-day level and is the most visible part of facilities management. It supports the basic routine and regular needs of the organization.

Complex Scope and Activity

This interprets that facilities management scope and the activities involved in it is complex. Based on interview result, one of the respondents mentioned that facilities management is spread across departments and roles, and there are too many things to be managed in facilities management scope.

This construct can be solved by setting up the proper agreement with the vendors. Yunianto and Rarasati (2020) found the importance of having a proper contract and developing the contract management system in a project. Due to large scope and activities, it's also important to have a good communication and coordination, and hence it's also useful for the company to establish proper communication matrix.

CONCLUSION

There are six major challenges and root causes inferred from this research, which are communication and close coordination, multiple vendors, unprofessional vendor, experience development and training, SLA and report standardization, and complex scope and activity.

Based on the literature and interview result, below is the recommendation of solutions, which can be also extended to other manufacturing company outside of PT MBI.

1. Conduct tender to implement total facilities management (TFM). For challenge in Multiple Vendor and Unprofessional Vendor, the recommendation is to conduct tender and implement total facilities management to replace current vendors and consolidate all of facilities management scope into 1 vendor. This needs a focus on identifying professional vendors and create more stringent vendor selection criteria.
2. Experienced personnel and training from vendor. For challenge in Experience Development and Training, the recommendation is to ask the vendor to provide personnel which are experience in doing the assigned tasks, and provide regular training to personnel.
3. Involve users to create standard SLA, KPI, and report and communicate to the vendors. For challenge in SLA and Report Standardization, the recommendation is to involve users to create a standard SLA, KPI, and report as per their needs and expectation, communicate it to the vendors to ensure they understand, and document it in contractual agreement.
4. Setup regular meeting structure. For challenge on Communication and Close Coordination, the recommendation is to conduct regular meeting structure and implement proper communication matrix.
5. Review internal policy on segregation of duty (SOD) and create proper contractual agreement. For challenge in Complex Scope and Activity, the recommendation is to review internal SOD to ensure there is no overlapping of responsibilities among the parties, create a proper contractual agreement with complete SOW and SLA and also conduct regular meeting with the users and suppliers to manage day-to-day operations.

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DECLARATION OF CONFLICTING INTERESTS

The authors declare that there is no conflict of interest with any parties and the ICPM Bali 2021 Committee or staff of AIBPM related to this article.

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