The Development of Procurement Role as a Strategic Function in Public Hospital

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ABSTRACT

Public hospital is non-profit organizations provide health services to the community. One of them is Dr. Kariadi General Hospital (RSDK), the best public hospital in Central Java. Currently, RSDK already have independent procurement unit however, the role of the procurement unit in the business process is still not one that is strategically important. Research's primary goal is to assess the maturity level of procurement organizations to understand the characteristics need to be improved. The research design for data collection is survey research. The analysis method employed is the Supply Management Maturity Model proposed to measure the level of maturity. The measurement of the maturity level of the procurement function is based on 5 characteristics, namely procurement planning, organizational structure of purchasing, organizational processes, human resources and leading, and purchasing control. The results of the study show that maturity level at procurement unit of RSDK is on stage 2 or independent stage. This stage shows that procurement unit has adopts the latest purchasing techniques, but procurement strategy is not aligned with the organization strategy. Characteristics that have poor performance are purchasing control and human resources and leading. The finding of this study provide insight into the importance of increasing the maturity level of the procurement function in supporting the strategic role of procurement.

CCS CONCEPTS

• :; • Social and professional topics → Management of organization; Supply chain management; Procurement;

KEYWORDS

Maturity, Public Hospital, Procurement

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1 INTRODUCTION

All organizations require input of goods and services from outside parties. These goods and services can be in the form of goods that are directly related to the main objectives of the organization such as materials, semi-finished goods, and machinery. Additionally, there are items and services that must be obtained from outside sources but are not necessarily related to the organization's primary objectives. Examples include office supplies, cleaning employees, and security personnel. Seeing the magnitude of the need for an organization to procure goods and services, the procurement process is very important for the organization to run.

Getting the appropriate material in the right quantity, from the right source, at the right time, and for the right price is the process of procurement [1]. Procurement is a broad activity, not just buying goods. Procurement activities include determining needs, selecting providers, making negotiations with suppliers, formulating contracts, and purchasing.

Procurement activities greatly affect the position of a company in the company's market. According to [2], a company spends an average 60% of its expanses to pay for material, services, and tools. High expenditure influenced by procurement requires procurement to be managed effectively and efficiently. The better the performance of a procurement unit is doing its job or the more mature the procurement unit, the more likely it is to save on procurement costs [3]. But according to [4] the maturity of procurement in national health services is still relatively low.

Dr. Kariadi Hospital (RSDK) is the best public hospital in Central Java. RSDK already have procurement function operated independently. However, the purchasing department is still developing its strategic position in the business process. According to [4], procurement as the key to achieving enduring competitive advantage at the corporate level is thought to be a strategic function. The hallmark of procurement as a strategic function is that the company's procurement strategy has been fully incorporated with that strategy, and that it is a component of an integrated, cross-functional effort to create a strategic plan [2].

Based on an interview with one of its members of the procurement unit, the role in the business process is not yet a strategic role. The procurement unit is not involved at the procurement planning stage. In addition, in the process of developing hospital facilities, the procurement unit was only involved in the procurement process, not planning. The procurement department also faced a number of issues. The procurement unit's vision and mission have not yet been properly carried out. While the organization's aims and points of reference are based on its vision and mission. Vision and mission are another method to assess how well an organization is performing its obligations, according to [5]. One indicator of the procurement unit's maturity is its vision and objective [6]. Another problem in the procurement unit is that suppliers are less responsive to their supply and needs. According to [1], measuring the maturity level of the procurement unit can determine whether we need to make changes or not and can determine the plan to make improvements to the procurement unit. A company may select what to improve in its procurement procedures by measuring its maturity level and comparing it to that of other companies [7].

According to [4], procurement is essentials to cost cutting initiatives. In the UK's National Health Service (NHS), procurement is either confronting its biggest financial challenge—inefficiency—or its biggest opportunity. The answers provided are all too frequently packaged as "collaborate more, standardize products, and leverage spend" despite the complexity, diversity, and sheer size of the NHS.

To maintain performance and plan for performance improvement, the procurement unit needs to conduct an assessment. Performance appraisal is important for the organization. Performance appraisal can be used to assess organizational success and can be used as a basis for developing organizational strategies going forward [8[. According [9], the relationship between procurement maturity and performance is favorable. It suggests that the better a procurement unit performs, the more mature it is. In order to assess a procurement unit's performance, its maturity might be measured. To assess the maturity of the procurement function, this study used Supply Management Maturity Model [3]. This method conducts an assessment based on 5 characteristics which are further divided into 19 sub characteristics. There are 4 stages of maturity namely stages 1, 2, 3, and, 4.

This research has two objectives. The first is to determine the level of maturity of the procurement unit. The second objective is to provide recommendations for increasing the maturity level of the procurement unit.

2 LITERATURE REVIEW

2.1 Procurement

All of the management procedures and activities required to make sure that a company can affordably purchase all of the goods and services it needs from outside sources are included in procurement. Many sources describe the definition of procurement. According to [10], the process of locating, accepting conditions from, and acquiring goods or services from suppliers—often through a tendering or negotiation process—is known as procurement. The goals are to ensure buyers get the goods or services at the best price with consideration of quality, quantity, time, and location. In general, procurement is the process of obtaining the right quality for a material, at the right time, with the right quantity, from the right source, and at the right price [1].

Prior to a few years ago, a company did not prioritize buying. In this instance, the procurement task consists just of a discussion of the goods' negotiated price with the supplier and a report on

the supplier relationship. Only the cost of acquisition is used to estimate more than 56% of manufacturing costs [11]. Procurement-related expenses accounted for almost 60% of the budget [2]. It demonstrates how strategic procurement is within an organization.

The more competent the procurement function is, as well as its position within the firm, the better it may be determined [12]. A key component of purchasing and supply management is strategic sourcing. 'Satisfying business demands from markets through proactive and planned examination of supply markets and supplier selection with the purpose of delivering solutions to meet established and agreed-upon business needs,' is how it is best described (Baily et al, 2015) [1]. The supplier market analysis process is divided into four stages, namely building commodity profiles, determining price structures, provider research, and identifying key market indicators [13]. Procurement innovation means providing goods or services in an innovative way. Innovation in procurement can be divided into two, namely innovation in the way of procurement which is commonly called procurement innovation or procuring innovative goods which are commonly called innovative procurement [14].

Government procurement is now more significant than ever before in the public sector due to the number of purchases and complexity of the process. Government procurement has been used as a crucial tool for economic development, not just in the technical and management elements [15]. Accordingly, contract management is a crucial task in public procurement, especially for development projects that aim to get the best value for the money [16].

Increased integration in parts will improve procurement and higher company performance. Integration between functions in procurement is the interaction and collaboration of procurement functions with other functions [17]. Lack of integration will reduce the overall competitive level of the company. The procurement unit will focus on reducing costs, while the marketing and research and development departments will focus on product innovation and quality improvement. The misunderstanding above can cause errors in choosing a provider.

Early contractor involvement in public procurement has a number of benefits, but there are still many challenges [18]. Direct contact with specialist contractors, design and build contracts, idea competitions, early contractor sales of ideas to the owner, negotiated bidding procedures, opening for alternative tenders, competitive dialogue, and project partnering are the 12 approaches to early contractor involvement. Indirect approaches, information meetings, front-end partnering processes, project announcements with alternative solutions, design and build contracts, and idea competitions are the other eight.

2.2 Supply Management Maturity Model

A maturity model is a method for determining an entity's level of maturity and the steps that must be taken to advance to a higher level [19]. A procurement unit's maturity level is evaluated using a technique called the procurement maturity model. According to [3], a procurement organization's maturity level and performance are positively correlated, meaning that the more mature an organization is, the better its performance will be in terms of procurement. The Supply Management Maturity Model is one of the maturity models.

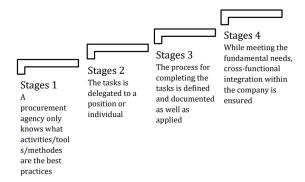


Figure 1: Supply Management Maturity Model

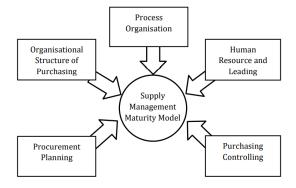


Figure 2: Measurement Indicators

Planning, organization, leadership, and control—the four traditional management function theories—are the factors or characteristics used to gauge a level of maturity [3]. In addition to showing a favorable relationship between maturity and performance, this model also has the advantage of being an empirical study rather than an observation.

The following table shows the results of multiple linear regression:

This model measures the five indicators that affect procurement unit maturity, as shown in the figure 2 below:

An organization's maturity is influenced by five main variables, namely procurement planning, organizational structure of purchasing, organizational processes (Process Organization), human

resources and leadership and procurement control. Procurement planning is the first process in conducting procurement such as material specifications, market analysis, and technology identification. The organizational structure is important in assessing the maturity of a procurement service unit, especially in implementing strategies in the organizational structure. Organizational process factors focus on the influence of provider selection strategy and long-term planning. Human resources and leadership are factors that see the professionalism of the agency and members of the procurement. Procurement control is how it is important to measure the maturity of the procurement agency. A good procurement agency must have good control over the hierarchy below it. An organization's maturity is influenced by five factors: procurement strategy, purchasing organizational structure, process organization, human resources and leadership, and purchasing control. Table 2 shows how the five qualities are further broken down into a number of sub-factors [3].

3 METHODOLOGY

This study employs a descriptive methodology and conducts both internal and external research. Internal exploration studies are carried out by searching for and understanding literature from books, journals, and previous research on procurement, procurement maturity, performance appraisal, and government procurement of goods and services. The goal is for researchers to understand more deeply the topics to be discussed and serve as the basis for conducting internal exploration. An internal exploratory study was conducted by interviewing the internal parties of the organization that was the object of the research. The questions asked at the time of the interview were questions obtained from external exploration. Interviews were conducted to find out more about problems that occur in the internal organization.

The research objective was determined based on the formulation of the problem that had previously been formulated. Based on these problems, it is necessary to assess the maturity level of the procurement unit. Procurement maturity or the maturity of the procurement unit is a level obtained by measuring the characteristics of a procurement function. From the measurement results, it can be seen that the characteristics are still lacking and recommendations for improvement can be made to improve the performance of the procurement unit.

This approach comprises four stages and is based on the supply management maturity model [3]. Distribution of questionnaires

Table 1: Supply Management Maturity Model

No	Score	Maturity Stages	Remarks
1	0% - 25%	Stages 1	A procurement agency only knows how activities/tools /methods are the best practice
2	25% - 50%	Stages 2	The task is delegated to a position or individual
3	51% - 75%	Stages 3	The process for completing the task is defined and documented as well as applied
4	76% - 100%	Stages 4	While meeting the fundamental needs, cross-functional integration within the company is ensured

No	Characteristics	Indicator
1	Procurement Planning (PL)	Plan for Demand (PL1)
		Consolidated Planning (PL2)
		Scan of Environment (PL3)
		Planning for Innovation (PL4)
2	Organizational Structure of	Structure and Purchasing Tasks (OS 1)
	Purchasing (OS)	Strategic Integration (OS 2)
3	Process Organization (PO)	Sourcing Strategy (PO 1)
		The Process of Supplier Selection (PO 2)
		Evaluation of Supplier (PO 3)
		Development of Supplier (PO 4)
		Purchasing Early Involvement in Development Process (PO 5)
		Early Supplier Involvement (PO 6)
		Cross Functional Involvement of Purchasing (PO 7)
4	Human Resource and Leadership	Job Description and Competencies (HR 1)
	(HR)	Personnel Selection and Integration (HR 2)
		Performance Appraisal and Career Development (HR 3)
5	Purchasing Controlling (CO)	Controlling System (CO 1)
		Controlling Process and Structure (CO 2)
		Controlling Method and Tools (CO 3)

and in-depth interviews regarding the five qualities assessed—procurement planning, organizational structure of purchasing, process organization, human resources and leading, and purchasing control—are the methods utilized to gather data. There are 19 sub components that make up the five characteristics. It is broken down into 56 questions or facets based on the 19 subfactors, and there are 4 answer options for each point, with each option describing a different level. The first response explains level 1 and assigns a value of 0, the second response assigns a value of 1, the third response assigns a value of 2, and the fourth response assigns a value of 3. Based on situations that are similar to the actual conditions at the the procurement unit, respondents will select one response from each evaluation point. The head of the procurement section will be subjected to questionnaires and interviews.

The measurement scale in this study is the ordinal scale. In the process of collecting maturity level data, an ordinal scale is used with a scale of 0, 1, 2, and 3. Each number describes the characteristics of each level in each sub-factor of the Supply Management Maturity Model. The results of data processing will be averaged and made a percentage where the results will describe the level of maturity of the procurement unit.

Calculating the average for each assessment attribute is the first step. The next step is to divide the entire value by the total number of evaluation points to determine the overall average and the maturity level of the procurement organization. The outcomes of the aforementioned calculations are then observed to be at which intervals of development stages. The Supply Management Maturity Model's four levels are used to analyze data and make recommendations by indepth interview and focus group discussion (FGD). The literature was also incorporated to support and further our understanding of these recommendations.

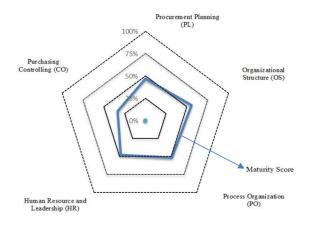


Figure 3: Maturity Score Chart

4 RESULTS

The first stage is to average the value of each characteristic and compare it with Table 1 to determine the maturity level of each characteristic. The calculation results can be seen in Table 3.

The results of data processing above show the maturity of each characteristic. The highest score is procurement organizational structure with a score of 56% and the lowest score is procurement supervision with a score of 33%. There are two characteristics that have reached level 3 and there are three characteristics that are still at level 2. The comparison between the scores of each characteristic and the maturity level scores can be seen in Figure 3.

No Characteristics Indicator Score Stages 1 PLPL1 2.00 67% 47% 2 PL2 1.33 44% PL3 1.33 44%PL4 1.00 33% OS OS₁ 1.75 58% 56% 3 OS₂ 1.50 50% 3 PO PO₁ 2.00 67% 51% 3 PO₂ 1.33 44% PO₃ 1.67 56% PO₄ 1.67 56% PO₅ 1.75 58% PO₆ 1.50 50% PO7 1.17 39% HR HR1 1.00 33% 48% 2 HR2 1.50 50% HR3 1.67 56% 5 CO 2 CO₁ 1.67 56% 33%

1.00

0.00

CO₂

CO₃

Table 3: Characteristic Score

4.1 Procurement Planning

Procurement planning is the first process in conducting procurement such as determining material specifications, market analysis, and technology identification. Demand planning, consolidated planning, environment scan, and innovation planning are the four indicators that make up characteristics of Procurement Planning. 47 percent of respondents gave procurement planning a grade, which shows that stage 2 features are present. There are still numerous areas where these stages can be enhanced.

This score is obtained because there are some aspects that are still poor. In demand planning, the factors considered are only the results of sales and forecasting. In addition, planning is only carried out on certain items. In the aspect of using information technology, procurement unit uses only a simple IT tool, namely spreadsheet, in conducting consolidated procurement planning. In the market observation process, explanation of the market analysis process is still unclear. For resources in conducting market observations, the procurement unit already has members in charge. The role of the procurement unit in the process of identifying technology is to provide information about technology trends to other functions. In addition, technology monitoring is one of the responsibilities of the procurement unit. In the aspect of technology roadmaps, procurement unit knows the roadmaps of products and technology of the suppliers. The roadmaps of important suppliers are also known by the procurement unit. The procurement department also analyzes technology roadmaps. This is one of the obligation of the procurement unit in evaluating supplier into the selection process.

Overall procurement planning is quite good. The value of the characteristic is 47%. The indicator that has the largest value is demand planning with a value of 2.0 and the indicator that has the lowest value is innovation planning with a value of 1.0. The combined planning and market observation value is 1.33. This shows

that a critical indicator is innovation planning. So that innovation planning is an indicator that must be improved.

4.2 Organizational Structure of Purchasing

33%

0%

A characteristic of the purchasing department's organizational structure is how the strategy is implemented inside the structure. This characteristic has two indicators, namely structure and mandate, and strategic integration. The scores for each indicator, respectively, are 1.75 and 1.5. This point shows that this indicator is good. The structure and mandate has four aspects. The first is the organizational structure. The organizational structure is an aspect that assesses whether the procurement unit is well established and whether the responsibilities for each member of the procurement unit are clear. This aspect has 2 points. This value is obtained because the procurement unit is well established and is responsible for each procurement activity and the procurement policy is clear. Second is the mandate. The mandate is an aspect of the responsibility of the procurement unit. The mandate aspect of the procurement unit has 1 point. This value is obtained because the procurement unit can initiate programs and measurements in carrying out procurement.

The third is the integration between functions. Integration between functions is an aspect that assesses the interaction between functions and how the response of other functions. In the procurement unit, integration between functions has point 2 because the duties and obligations have been coordinated with all functions based on business processes and are stipulated in a guideline, namely the Director's Regulation. Finally, integration with other procurement units. Integration with other procurement units is an aspect that looks at the relationship between procurement units. This aspect has a point of 2. This value is obtained because the procurement unit is an active part in the network of other institutional

procurement unit groups. There is an exchange of information between the procurement unit and other procurement units, such as with other hospital procurement units in other regional areas.

Strategic integration has a point of 1.5. This figure shows that this indicator is good enough, but can still be improved. This indicator consists of two aspects, namely the meeting of the board of directors and the decision to make and buy. The first is the board of directors meeting and the second is the make or buy decision. The board of directors meeting is an aspect regarding the involvement of the procurement director at the board of directors meeting. This aspect has 1 point. This value is obtained because at the meeting of the board of directors, the director of procurement is always included even though he is not yet part of the executive committee.

Procurement organizational structure has a score of 56%. This characteristic has reached stages 3 meaning that this characteristic is good but can still be improved.

There are some aspects which are still poor on this characteristic. The main task of the procurement unit is to initiate programs and measure of carrying out procurement. At board meetings, the procurement unit represented by the director of procurement, is always included even though it is not yet part of the executive committee.

4.3 Process Organization

The process organization has seven indicators, namely sourcing strategy, supplier selection, supplier evaluation, supplier development, early involvement in development process procurement, early supplier involvement, cross functional involvement of purchasing. Scores of each indicator, respectively, 2.0, 1.33, 1.67, 1.67, 1.75, 1.5, and 1.17. This characteristic has a score of 51%. The score indicates that the organizational process is at stages 3. This means that these characteristics are good.

But there are still some aspects that are not good. Documentation of the supplier selection process at procurement unit has been regulated and defined but is only internally. Contract management is still not explained, only standards have been applied. Communication with suppliers is still poor. Evaluation results are not always communicated with the supplier. Optimization of development is also still poor It's because the Kariadi procurement unit does not make visits to suppliers nor training and workshops with providers. The role of procurement in standardization is to reduce unnecessary complexity in procurement assets, processes and structures. In determining materials / functions, procurement unit contributes by assisting the technical and quality departments in the selection of materials and functions in the development process. Procurement unit assists in the selection of materials and functions through a technical team that is indeed tasked with handling specifications. In early supplier involvement, supplier contributions only provide input at the beginning of the development process. The involvement of marketing, quality, production and logistics, and operative procurement is still not good. Between these sections with procurement only provide information to each other.

4.4 Human Resource and Leadership

Human resources and leading are characteristics that look at the professional aspects and capabilities of a procurement unit. Three factors, including job description and competency, personnel selection and integration, performance evaluation, and career growth, serve as indications for this trait. In order, the points for each indicator are 1.0, 1.5, and 1.67. This characteristic has a score of 48%. A score of 48% indicates that these characteristics are on stages 2. Stages 2 means that these characteristics still need to be improved to become a strategic role.

This value is obtained because there are some aspects that are not good. Aspects of the procurement function has been clearly explained and is an adaptation of the hospital strategy. Technical competence for each technical already has its own SOP according to the type of goods, value of goods, sources of funds and procurement techniques. Integration with other functions currently has training plans, but only for some functions and there are no specific targets. Only when new technologies or changes in how the government purchases products and services are made can training sessions take place. The explanation about the target approval has reached the non managerial level. However, this explanation was only made based on the internal approval of the procurement unit.

4.5 Purchasing Controlling

Purchasing control is a characteristic that looks at how to measure performance and supervision. This characteristic has three indicators, namely controling system, controling process and structure, controling method and tool. The scores of each indicator, respectively, are 1.67, 1.0 and 1.0. Purchasing control has a score of 33%. Based on this score these characteristics are at level 2. A score of 33% indicates that much needs to be improved in the purchasing control process at procurement unit.

This value is obtained because there are still many aspects that are not good enough. Measurement parameters are only implemented in important functions. The controlling organizational structure of the procurement unit already has a planning and controlling function but is not yet well established. In the aspect of responsibility, the procurement unit already has an explanation of the duties and responsibilities but not yet well. The target monitoring process at the Kariadi procurement unit has been applied a comparison between targets and actualization. Correction action needed is done. Measurement of the supervision process at the procurement unit already have a way to determine the results of the supervision process. Commodity coding in procurement unit does not yet have a code for the goods / services being held.

4.6 Maturity Level

Procurement unit currently has a maturity level score of 47.6%. A value of 47.6% indicates that procurement unit on stage 2. Overall the procurement unit is good enough, but there is still much that needs to be improved to reach stage 4 or a strategic role. There are three characteristics that are still in stages 2 and there are two characteristics that are already in stages 3 in procurement unit. The best value is on the organizational structure of purchasing with a value of 56%. This value indicates that the organizational structure of purchasing is on stage 3. The second largest value is the process organization with a value of 51%. Based on these values the characteristics of the process organization are already on stage 3. Stages 3 shows that the procurement function on these

characteristics has supported the hospital's competitive strategy by adopting techniques and best practices. The third biggest value is human resources and leadership with a value of 48%. With a value of 48% of human resources and leadership on stage 2. Procurement planning has a value of 47%. With these values indicate that the characteristics of procurement planning on stage 2. The smallest value is controlling procurement with a value of 33%. This value shows the maturity level of controlling procurement at stage 2. Stages 2 shows that the characteristics at this stage have applied the latest techniques and practices but the strategy is not in line with the hospital strategy.

Based on the measurement of the Maturity Model, it can be seen which aspects are still not optimal, then recommendations for improvement are made by indepth interview to increase the level of maturity of the procurement unit in order to achieve a strategic role. The recommendations are analyze supply markets and product life cycles, consolidated procurement and procurement processes information systems, innovate on procurement, implement contract management practices, improve supplier relationships, improve monitoring and measurement systems, and improve integration with other sections.

Analyze supply markets and product life cycles can assist in making steps to be taken in the procurement process, improve procurement strategies, and help make anticipatory plans if something unexpected happens. Provider research is the process of understanding a provider's structure and history. This stage is the basic stage in conducting provider analysis. At this stage, what can be done is to seek information through internal sources of providers, procurement associations, and annual reports from providers. The final stage is to identify the key market indicators. The provider market analysis process is carried out by building a commodity profile, determining the price structure, researching providers, and identifying key market indicators (Hargraves, 2008).

Consolidated procurement and procurement processes information systems are carried out through the use of information technology for joint planning, an information technology system that can assist the joint planning process should be implemented. The information technology system will be able to be used for related functions as an inventory database and provider.

Innovate on procurement is needed for the procurement process to achieve the unmet needs of the company with innovative solutions [14]. However, what must be considered so that the innovation process does not fail is that there are members who reject the new method, do not understand the potential benefits of innovation and are doubtful about the capabilities and capabilities of members.

Contract management is an important activity in government procurement, especially in development projects while achieving value for money [16]. To achieve value for money, good contract design must also be supported by activities in contract management and assigning experienced staff to supervise consultants and contractors. The procurement unit must ensure that contracts are completed on time, of satisfactory quality, minimized risk, and minimum costs.

Improve supplier relationships need to be done through the involvement of providers in the procurement process. This can improve the performance of the procurement and project. In the process of engagement, an evaluation of the provider is carried

out by the procurement unit at the end of the project so as to improve the performance of both parties. The keys to successful provider engagement early in the process are timing of engagement, risk distribution, competence of the project leader, appropriate compensation, qualification of the contract and trust.

Monitoring and measurement systems need to be improved to support organizations to comply with applicable laws, meet accounting and reporting obligations, and achieve strategic objectives, which include protecting resources, misuse, and damage. Supervision of the procurement unit can be done through performance measurement using the Performance Measurement and Management (PMM) method. Meanwhile, the supervision of the procurement process or project can be carried out using the Project Evaluation Review Technique (PERT) and the Critical Path Method (CPM). This method can help users to find out how long the project can take to complete, what the risks are, what critical activities can slow down the project, whether the project is on time, faster, or slower, whether the project should be accelerated, and how to complete the project so that minimum costs are achieved.

Integration with other sections should be enhanced through interaction and collaboration of the procurement function with other functions. Lack of integration will reduce the overall competitive level of the company. The procurement unit will focus on cost reduction, on the other hand, the marketing and research and development departments will focus on product innovation and quality improvement. Misunderstanding above can lead to errors in choosing a provider. Increased integration within the department will lead to higher procurement and company performance [17]. Some other recommendations that need to be done are describing the procurement process to other parts, applying standardization, finding out developments in procurement, training for personil, and detailing targets.

5 CONCLUSION

The conclusions obtained from the research is the general procurement unit of RSDK has carried out its functions well when viewed from the applicable government regulations. However, there are still many activities that have not been formally documented in a technical manual or standard procedure.

Based on the measurement results using the Supply Management Maturity Model, the procurement unit of RSDK is on stage 2. Overall, this stage shows that procurement unit has implemented the latest procurement techniques. But the procurement strategy is not aligned or integrated with the organization strategy. Other characteristics at this level are performance based on efficiency and price reduction. There is a relationship between the procurement unit and the user. Top management at this level is likewise aware of the value of procurement and its ability to increase revenues.

There are 2 (two) characteristics that have reached stage 3, namely the organizational structure of purchasing and process organization. There are 3 (three) characteristics that are at stage 2, namely human resources and leadership, procurement planning, and procurement controlling. The characteristic with the best value is the procurement organizational structure. The characteristic with the smallest value is procurement control.

Recommendations that should be applied to improve procurement maturity is to analyze supply markets and product life cycles, consolidated procurement and procurement processes information systems, innovate on procurement, implement contract management practices, improve supplier relationships, improve monitoring and measurement systems, improve integration with other sections. Other recommendations such as describing the procurement process to other parts, applying standardization, finding out developments in procurement, training for personil between sections, and detailing targets.

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