

Employee Needs Planning Based on Workloads Analysis in the Procurement Goods and Services of PT PLN (Persero) Unit Induk Pembangunan Pembangkit Sumatera

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ABSTRACT

Human Resources (HR) are the key to facing the digital economic era. Industry 4.0, which relies on technological developments, requires Indonesia to prepare for the development of reliable resources. PT PLN (Persero) was given the task by the Government to build a power plant of 35,000 MW. To achieve the 35,000 MW project development target, a job contract is needed for the construction of the EPC (Engineering Procurement and Construction) and supporting project work contracts such as supervision consultant contracts, service consultants, procurement of office equipment, office stationery, transportation facilities and others. The efforts of PT PLN (Persero) in order to achieve efficient, effective, transparent and accountable procurement of goods / services can be done through an effective and efficient management of the organization. If the target is to be a large company, a mature organizational strategy is needed so that the target can be achieved. To achieve this strategy, the efficiency and effectiveness of the organization must be maintained. It because inefficiencies and ineffective could lead to a decrease in organizational productivity and threaten the implementation of the objectives of the PT PLN (Persero).

Keywords: *workload, employee needs, effective working hours*

INTRODUCTION

Human Resources (HR) are the key to facing the digital economic era. Industry 4.0, which relies on technological developments, requires Indonesia to prepare for the development of reliable resources. PT PLN (Persero) was given the task by the Government to build a power plant of 35,000 MW. The 35,000 MW program aims to meet the electricity needs of the Indonesian people from Sabang to Merauke.

So that the Electrification Ratio (RE) of 100% Sumatra can be fulfilled by 2023. This will certainly have a significant impact on economic growth outside Java, which previously lacked electricity supply.

To achieve the 35,000 MW project development target, of course a work contract is needed for the construction of the Engineering Procurement and Construction EPC as well as supporting project work contracts such as supervision consultant

contracts, service consultants, procurement of office equipment, office stationery, transportation facilities and others. The efforts of PT PLN (Persero) in order to achieve efficient, effective, transparent and accountable procurement of goods / services can be carried out through an effective and efficient management of the organization. Effective and efficient organizational management can be carried out in all fields including human resource development. DM organization within the scope of PT PLN (Persero) in this case the employee is one of the company's assets that must also be managed properly. An effective and efficient business means that the output produced by each employee meets what is targeted by the organization. Based on the amount of output or work that can be produced by each employee, it can be known how many employees are actually needed by the company to reach the target. This can be done through a workload measurement, so that employees can work optimally according to their abilities.

If the target company is large / high, then a mature organizational strategy is needed so that the target can be achieved. To achieve this strategy the efficiency and effectiveness of the organization must be realized and maintained. This is because inefficiency will cause a decrease in organizational productivity and threaten the implementation of the objectives of the PLN (Persero). This is then the background of the importance of carrying out workload analysis and the number of work requirements for the work environment. Especially for employees of the Procurement of goods / services.

Based on the description above, several problems can be formulated, as follows:

1. What are the main tasks of the procurement planning bureau and the procurement implementing bureau in the PLN Procurement Section UIP KITSUM?
2. What is the description of the use of work time by employees of the procurement planning bureau and procurement executing bureau?

3. What is the number of requirements for the procurement and procurement planning bureau based on the measurement of workload in the Procurement section?

4. What alternative solutions or managerial implications can be offered?

This study focuses on the study of human resource problems, namely regarding the measurement of workload and the number of needs of employees of the procurement department of PT PLN (Persero) UIP KITSUM. The objective of the research is all employees working on the procurement planning bureau and procurement executing bureau. The object of research is the workload generated by employees when completing their work.

LITERATURE REVIEW

Human resource management (HRM) according to Rivai and Sagala (2009), is one of the fields of general management which includes aspects of planning, organizing, implementing and controlling. This process exists in the functions or fields of production, marketing, finance, and staffing. Various experiences and results of research in the field of HR are collected systematically in a human resource management. The term "management" means as a collection of knowledge about how it should manage human resources.

HR planning aims to ensure that the resources needed, both quantity and quality are available when needed. Many companies that have excessive resources cause the burden of the burden to be too heavy and less rapid in responding to changes in the environment. For companies lacking employees will have difficulty completing all jobs on time. The advantages and disadvantages of employees in the company indicate that HR planning has not been implemented properly. HR planning is the basis for decisions in the recruitment, selection and placement of employees (Badriyah, 2015).

Workload is a situation where workers are faced with a task that must be

completed at a certain time. Workload can be seen from activities or activities carried out by staff at work time, both direct, indirect and other activities such as personal activities and unproductive activities. The effort to calculate the workload on the work unit can be done by summing all workloads and then dividing it by the work capacity of each person in each unit of time (Ilyas, 2001).

The conceptual framework is a conceptual model that shows a logical relationship between factors / variables that have been identified to analyze research problems. In other words, the theoretical framework explains the pattern of relationships between all factors / variables that are related or explained in the theoretical basis. The pattern of relationships between variables in the theoretical framework is generally displayed in a schematic model (Sinulingga 2017).

Human resource planning is a decision about the future of a company that contains predictions of the number and quality of human resources needed to operate the business plan. This prediction means setting decisions about the human resources that will be employed to carry out a business program, which has a huge effect on the company's success or failure (Nawawi, 2015). The right HR planning will produce work efficiency and effectiveness so that it can increase organizational productivity. The purpose of the institution can be achieved if organizational productivity is increasing.

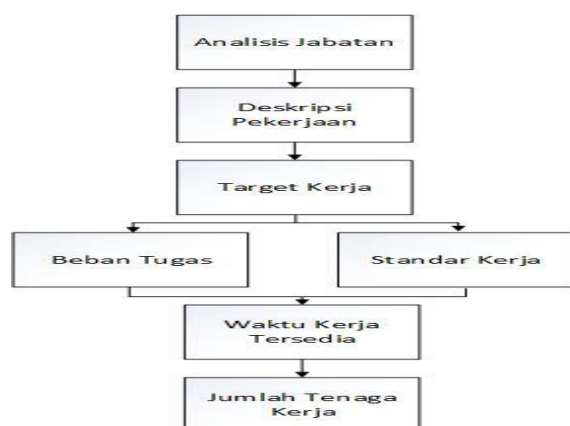


Figure 1 : Conceptual Frame

MATERIALS & METHODS

This study uses quantitative and qualitative data. Quantitative data, for example in the form of numbers of use of work time, effective work time, average time of completion of a main task (average ability standard) and quantity or main task load for a year, while qualitative data in the form of information about the main tasks of the planning section. The types and sources of data collected in this study are primary data and secondary data. Primary data is obtained directly through observation activities of activities carried out by employees during work time and results of interview activities. Secondary data was obtained from the HR Division of PT PLN (Persero) UIP KITSUM and Organizational Management Application (AMOR) regarding the description of the main tasks and workloads, as well as books and literature related to research. The population in this study were employees at PT PLN (Persero) UIP KITSUM working in the Procurement section. The sample in this study was taken from all the main activities or main tasks carried out by employees who work in the procurement section consisting of procurement and implementation planners during working hours. The sampling method for procurement is done by Non-Probability Sampling or Non-Random Sample. The type of sampling used is saturated sampling, which is included in the type of Non-Probability Sampling.

RESULT AND DISCUSSION

Observations about the use of work time are done by the work sampling method. Observations were carried out for two consecutive days according to the hours of work in the Procurement section of the procurement planning bureau and procurement implementing bureau. The observation of the use of productive, unproductive and personal work time with a five-day work sampling method for the procurement department's supervisor can be seen in the table.

Table 2 : Average percentage of use of employee time

Employee	Persentase (%)			Total Persentase	Bureau
	Productive	Non Productive	Personal		
AA	70.86%	10.29%	18.86%	100%	Rendan
RA	73.71%	8.00%	18.29%	100%	Rendan
PN	74.86%	6.86%	18.29%	100%	Rendan
HS	74.29%	13.71%	12.00%	100%	Lakdan
RS	72.00%	9.71%	18.29%	100%	Lakdan
MS	70.86%	17.14%	12.00%	100%	Lakdan
BP	80.00%	9.71%	10.29%	100%	Lakdan
SN	78.86%	5.14%	16.00%	100%	Lakdan
Rata-rata	73.80%	10.78%	15.43%	100%	Lakdan

Based on Table 2, it can be seen for types of productive activities, the amount of time usage of each employee in the procurement department ranges from 70.86 percent to 80 percent. The amount of time spent by employees for unproductive activities ranged from 5.14 percent to 17.14 percent and for personal activities ranging from 10.29 percent to 18.86 percent.

The use of time for productive activities as seen, which was carried out for the highest 5 days was carried out by BP and SN who were in the procurement implementing bureau which was 80 percent (384 minutes) per day and 78.86 percent (379 minutes) per day, while the most low is carried out by MS and AA who are also in the procurement planning bureau and procurement executing bureau that is equal to 70.86 percent or 340 minutes per day. Based on the results of observations, the use of time for productive activities between planning schools and the implementation bureau is not much different, only a difference of 1.82 percent. This happens because there are employees of the procurement planning bureau that carry out personal matters during working hours so that it falls into the category of unproductive activities which affects the average productive time usage of the procurement planning bureau. It is different from what happened in the procurement implementing bureau, because the work in the bureau is quite dense so that the focus is on the workplace to solve basic tasks.

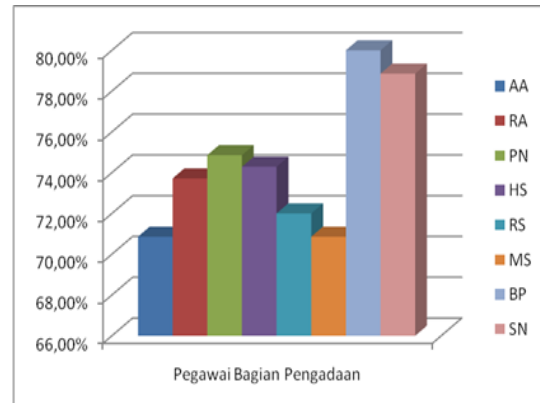


Figure 2 : Productive work time usage diagram

When viewed as a whole, the average use of productive time by employees in the procurement department is around 80 percent. Ilyas (2004) states that a person's productive productive time reaches 80 percent. Referring to the statement, it can be concluded that the procurement planning bureau employees and the procurement procurement bureau under study were estimated to be 73.80 percent, not yet approaching the optimal percentage in using productive work time, even though it was only less than 6.2 percent.

Based on the average percentage of time usage for each type of activity, it can be seen that the average percentage of time usage for this type of productive activity is 73.80 percent, the percentage value for unproductive activities is 10.78 percent. The optimal productive time is 80 percent. Based on this, it can be concluded that the average procurement staff worked on unproductive activities of 6.2 percent which should be used for productive activities. This can be increased a little more so that the average use of productive time is at least

80 percent, according to the standards of use of productive time.

In accordance with attendance for May-July 2018, most of the procurement staff do work beyond the hours that should or can be said overtime with an average return from work at 18.11 until 18.26 WIB.

Table 3 : Summary of the number of needs of the Procurement Officer

No	Bureau	Employee Needs (Persons)	Integration
1	Procurement Planne	1.99	2
2	Procurement Implementers	6.94	7

The number of employees of the procurement planning bureau based on the job description is 1.99 people. Even though rounding will eventually be carried out, the difference in the number of employee requirements can show how the workload is illustrated in each administrative unit.

The number of staff requirements for the procurement planning bureau is 2 people. This is calculated based on a description of the main tasks in the procurement planning bureau in 2018. In 2018 the procurement planning bureau was tasked with completing 47 packages of documents consisting of qualification documents and Work Plans and Terms (RKS) for Construction work (< 1 M), consultants and Other Work as many as 44 packages while qualification documents and Work Plans and Conditions (RKS) for Construction work (> 1 M) are 3 packages. The preparation of the List of Selected Providers (DPT), which is a time-consuming process, has 3 Qualification Documents. To complete the entire description of the main tasks, the planning bureau requires 2 employees based on the calculation of the completion time of the year.

The number of employee needs for procurement executing bureau is 7 people which is calculated based on the description of the main tasks in the procurement implementing bureau in 2018. In 2018 this procurement executing bureau got the task to complete 74 document packages both

with direct procurement method, direct appointment, appointment of DPT or auction. The process of implementing the procurement explanation (Aanwijzing) was carried out in the city of Medan or outside the city of Medan, so that when the site visit was carried out the time needed to be increased if carried out outside the city of Medan. Amount (Aanwijzing) carried out outside the city of Medan based on interviews was as many as 37 packages out of 74 existing packages. To complete the entire description of the main tasks, the procurement executing bureau needed 7 employees based on the calculation of the completion time of the year.

The number of employee needs in the procurement executing bureau is much higher than the procurement planning bureau, this is because the more and more complex workloads are carried out by the procurement implementing bureau. This can be illustrated in the Table regarding the description of the main tasks of the procurement implementing bureau.

The number of employees currently in the procurement section and the number of employees needed can be seen in the table below.

Table 4 : Comparison of the number of employee needs with the actual number of employees

No	Bureau	Number of Employee Needs	Actual Amount of Employee
1	Procurement Planner	2	2
2	Procurement Implementers	7	4

Based on the results of the comparison of the number of employees needed for the real or actual number of employees, it can be seen that there is one of the bureaus in the procurement department experiencing a shortage of employees.

The number of staff requirements for the procurement planning bureau is the same as the actual number. This is due to the details of the task of the planning bureau that has been detailed and the length of time the completion has been in accordance with the actual so that only two people are needed to do the work of the

procurement planning bureau. This can be proven by the number of procurement planners' bureau requirements in the procurement section before rounding up 1.99, which is almost close to the number of employees needed by 2 people.

Results Calculation of employee needs based on the workload of the procurement department is the basis for human resource planning at PT PLN UIP KITSUM. HR planning is the first step in preparing competent human resources according to their fields so that work efficiency and effectiveness can be realized and corporate goals can be achieved

DISCUSSION AND CONCLUSION

Based on the results of interviews and observations to employees in the procurement department (procurement planning bureau and procurement executing bureau) obtained the main tasks and elements of the main task. The main tasks of the procurement planning agency obtained from this study are in more detail in accordance with the actual work performed by the employee. The use of work time carried out for each main task and element of the main task is more specific and measurable.

Based on observations it is known that employees who work in the procurement of goods / services work five days a week from Monday to Friday with an effective working time of 226 working days a year. The working hours of employees per day are from 08.00 until 16:30 on Mondays-Thursdays and 08.00-17.00 on Fridays, with a total working hours of a week of 40 hours.

Based on the average percentage of use of work time by procurement staff, it can be concluded that the average employee uses as much as 73.80 percent of their productive time to work on activities related to basic tasks. This shows that the use of work time for productive activities is more than 70 percent, which indicates that the use of working time for procurement staff is still productive (> 70 percent). If it is added 6.2

percent, then the use of work time becomes optimum (80 percent).

The use of unproductive work time is 10.78 percent. As for the types of personal activities, the average employee spends as much as 15.43 percent (rounded up to 16 percent) or 1 hour 14 minutes per day for personal activities. These results are still within the limits specified in KEP / 75 / M.PAN / 7/2004 which is equal to 30 percent of work hours lost for personal needs such as food, rest, prayer and so on. Effective Business Hours after deducting an allowance of 16 percent, which is 6.72 hours / day. Based on the Decree of the Minister of Administrative Reform Number: KEP / 75 / M.PAN / 7/2004 concerning Guidelines for Calculation of Employee Needs based on Workload, effective working hours a day after deducting an allowance of 30 percent are 5.6 hours / day, so that working hours are effective 6.72 hours / day can be said to be very productive for the Procurement Section staff.

The number of staff requirements for procurement planning bureaus is based on workload, which is 2 people. While the number of employees for procurement executing bureau is based on workload, which is 7 people. According to the results of the comparison of the number of employees' needs for the actual or actual amount in each bureau, it can be seen that the procurement planning bureau has a number of employees in accordance with the workload calculation of 2 people, but the procurement implementing bureau has a shortage of employees the workload is 7 people, currently there are only 4 people. Factors that influence the magnitude of the procurement workload are the large number of contract document packages that are the main output of the procurement of goods / services, the difficulty of completing HPE or HPS, and the implementation of procurement explanations (Aanwijzing) that are carried out outside the city. These things result in the time needed for a particular main task affecting the size of the workload.

RECOMMENDATIONS

Based on the result of research, discussion, and conclusions the suggestions that can be given are as follows :

- a. PT PLN (Persero) UIP KITSUM should review the workload analysis in the procurement section. Things that need to be reviewed, for example regarding the description of the main tasks of the procurement executing bureau. Labor requirements can be calculated after the job analysis is carried out. Estimated procurement plans each year affect the number of employees who must be placed in that section, so that the workload of each employee does not over capacity.
- b. Conduct training for employees to increase capacity and knowledge in accordance with the description of the work being done.
- c. The lack of a number of workers should be overcome, for example by doing work methods that make time more effective and efficient, reducing unproductive time to be productive. If this has been done but is still over capacity, the addition of employees is a solution that must be done.
- d. Comparative study to the procurement department in another unit regarding the work of procuring goods / services to provide an overview while comparing the implementation steps of the work and the time needed to complete the work.

For further research, it is recommended to examine how to make workload standards for jobs in other fields or parts of PT PLN (Persero) UIP KITSUM.

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