The Analysis of Employee Quantity Needs in PT Best Logistic Service Indonesia

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Abstract- Building an organization or institution, both public and private institutions, in addition to the necessary funds also mature strategy when developing human resources. Thus, organizations or institutions will be a body that tactical and efficient. HR planning is an important element in the development strategy of the institution. The availability of qualified human resources in the right quantities is absolutely necessary in every institution. The exact number of employees who can be known through the analysis of the workload and workforce needs. Workload becomes important to note because the institution is fundamental to the identification of how well an employee doing the job. The exact numbers of employees who will assist institutions to further improve its effectiveness. Through systematic HR planning program can be estimated that the number and type of labor required. One method to measure the employee needs to see the work load is a Work Indicator of Staffing Need (WISN) method, even this method has been standardized by the United Nations (UN) through the World Health Organization (WHO).

Index Terms- employee quantity, human resource, organization, WISN, work load

I. INTRODUCTION

PT. Best Logistic Service Indonesia (PT. BLSI) is a foreign company in the field of logistics service providers, which is one part of a group of companies Honda Logistics Inc. In conducting its business PT BLSI become a vendor of PT Honda Precision Parts Manufacturing (PT HPPM) engaged in manufacturing critical components to the automotive brand Honda located in the city of Karachi Indoteisei. In this case PT BLSI is party to three of PT HPPM the entire activity depends on the needs of the customer, namely PT HPPM.

Availability of third-party human resources tailored to the needs of logistics control department PT HPPM by receiving, supply, packaging, and prepare shipping. For the availability of human resources at PT BLSI must be the concern of the leadership of the Department of Logistic Control PT HPPM as the first party since the activity will determine the logistics costs, effectiveness, and efficiency of the Department of Logistic Control PT HPPM. One important effort should be made Manager Logistic is planning HR needs appropriately in accordance with the functions of each area ofwork, parts and logistical needs PT HPPM. In the implementation of production activities and operations require appropriate human resources in terms of executive employees and line managers to help meet the goals of the organization. That requires the proper management of human resources management in terms of effective and efficient, in order to improve the competitiveness and value of the company.

From observations made, when this happens the problem of determining the labor force in a third party. In the recruitment activities of PT BLSI determine for themselves the needs of employees and treat the contract system on a new employee, so that in addition to the number of employees becomes excessive, job rotation is very often the case resulted in many problems and the value of the bill for operating costs of PT BLSI PT HPPM be great.

In detail, the purpose of this study was (1). Analyzing the availability of manpower at PT BLSI. (2) To analyze the labor needs PT BLSI. (3) To analyze the amount of labor that is effective and efficient for PT BLSI. To determine and analyze the amount of labor, the method used is Work Indicator of Staffing Needs (WISN) preceded by work sampling, time and motion study, daily log, and job description.

II.   IDENTIFY, RESEARCH AND COLLECT IDEA

This study is limited to the formulation of the strategy is based on a case study on PT BLSI involving the top management of the company as an internal party. The study was conducted at PT BSLI, which is located at the headquarters of Karawang. Selection PT BLSI done by intentionally of course based on the formulation of the problem. The consideration is the availability of data and willingness of the management company to study its strategic assessment. Data were collected in May 2016 until July, 2016.

2.1 Frame Works

Picture 1 Research Frame Works
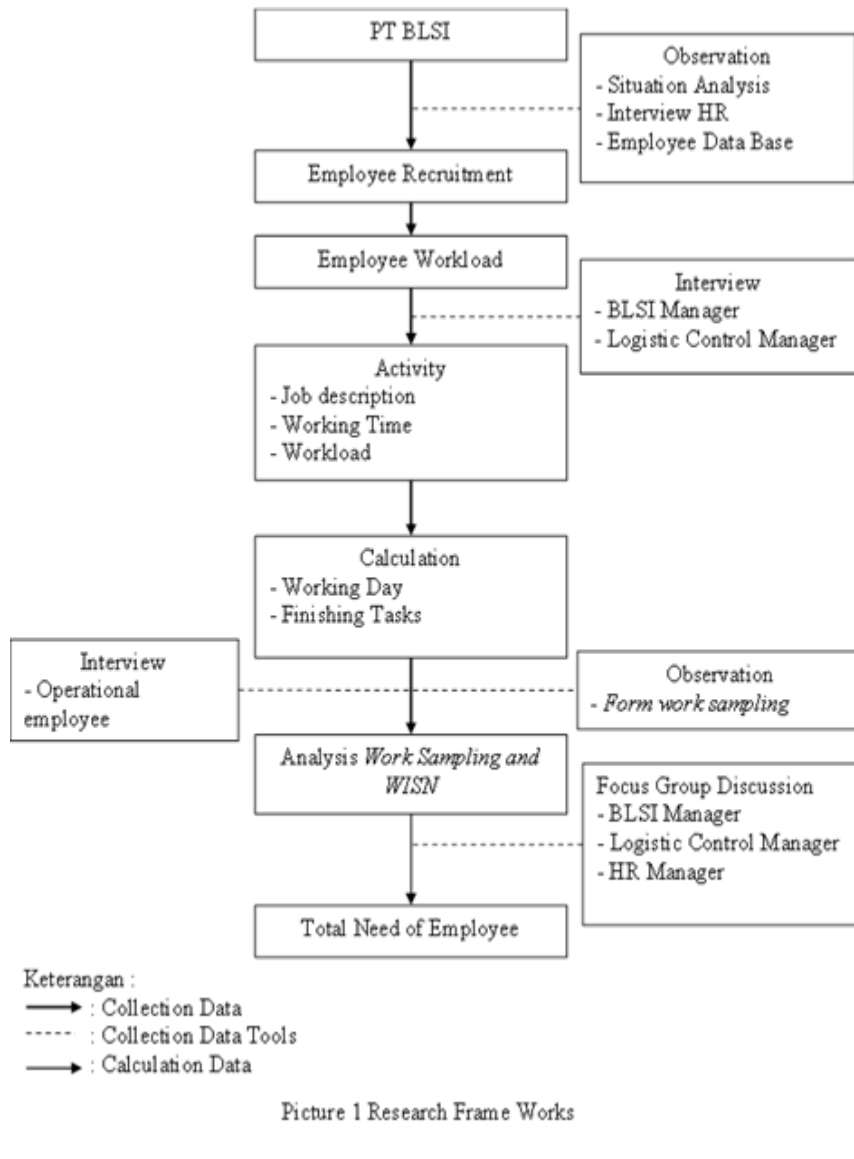
The experiment was conducted on: (1) Focus on needs analysis based on the workload of employees at PT HPPM a third party (PT BLSI), Karawang, West Java, which consists of several office staff, and operators. (2) The work area is used as research material is a logistic area where this area is the doorway and spearheads the flow of goods from PT HPPM consisting of Material Service and Export area. (3) The study was conducted with two design studies; the design of qualitative and quantitative studies (4) Qualitative study design was applied using the Workload Indicator of Staffing Need (WISN), observation, interviews, focus group discussion and review documents. (5) Quantitative study design was applied by using a calculation of working time by observing the cycle time is the best. A measurement tools used is interview, study guidance document, and the process table (form work sampling) to take note of the activities carried out and implementation time employees. (6) Prepare estimates and recommendations based on the Employee Needs tasks and job function, job title, and position levels.

Methods of collecting primary data on employee obtained through methods WISN work sampling approach, is observation and

recording of employee activities conducted during working hours, with a distance of observation time every ten minutes. Activity observed in studies using work sampling is grouped by category of production activities, unproductive and personal.
The primary data collection capability in the form of standard average completion time and the quantity of the load from the main tasks of work. The data collection for the purpose of identifying the main tasks to be performed by the method of work combined interviews and observations. The types and sources of data used can be seen in the following table:

Table 1 the Types and Resources Data

No	Type Data	Resource Data
A	Data Primer	
	- Questioner - In Deep Interview - Observation	*Sample*Responden all operational unit at PT BLSI
B	Data Sekunder	
	1. Vision Mission and organization structure 2. Employee Data (workload, Total Labor, *job description*) 3. Thesis/book/literature	1. Company Document 2. Literature review 3. Library and internet

The population in this study was employees of PT BLSI holds a position as an operator. Selection of sample size conducted with non-probability sampling method in which each member of the population has the same chances to be elected as members of the sample. The sampling technique was by purposive sampling where samples were taken based on availability and ease to get it.

III. STUDIES AND FINDINGS

Data processing, carried out two stages, the first examination of the data has been obtained on the observation sheet work sampling. Examination of the terms of the completeness, if there are errors or inconsistencies in the observational data. The activities are grouped by category of productive activities, unproductive and each individual then calculated the amount. Furthermore, the data derived from observation sheet was transferred into the computer for processing. The second step, enter data regarding the ability of the average standard completion time of the main tasks of work for a year in the formula for calculating labor requirements based on workload. The calculation process will be supported by Microsoft Excel.

a. Setting a working time

The working time in question is effective working time, which means that working time is effectively used to work for one year. Effective working time consists of effective working days and working hours effectively. Effective working days are the number of days in the calendar minus holidays and leave. The following detailed calculation:

Effective working day = (A - (B + C + D))......................... (1)

Information:

A = Total day in a year, B = Total Saturday and Sunday in a year, C = Total holiday in a year, D = Total Annual Leave

Holidays can be a national holiday and a regional day off, therefore for each area calculate your own holiday. Effective working hours is the number of formal working hours reduced by lost work time because they do not work (allowance) such as waste water, unwind, meal breaks, and so on.

b. Setting finishing completion Job

Task completion time is the product of the amount of loads standard basic tasks with the ability of the average completion time of the task. Task completion time calculation formula is shown in Table 2. The product of the burden of the task to standard time averaging capabilities completion of tasks performed per basic tasks. The result of the multiplication of all the main tasks that exist then summed, resulting in a total time of completion of the task.

Table 2 Time Calculation Finishing Job

No	Description of The Main Tasks	BT	SKR	WPT (BTxSKR)
1				
2				

Ext.

∑WPT

Description: BT = Total workload in a certain time, SKR = Standard Capability average task completion time, WPT = Completion Time of Tasks

c. Calculations the needs of employee

Needs of employees could be calculated if the specified task is done. The formula for computing the number of employees needs is:

$$KP = \frac{\sum WPT}{\sum WKE} \, x1orang$$

Description: KP (Employee Needs), WKE (Effective working time), (Completion time tasks)

WISN is method can be used for all units, the calculation is more real because base on a real job. From the data analysis may propose additional labor / put power based on competence. This method is also obtained from WISN ratio, the smaller the ratio WISN it will be increasingly heavy workload in comparison with power availability. The downside of this method include requiring service standards for each category of workers, require job descriptions are detailed, requiring a standard time to carry out tasks and require the data (attendance, number of visits, the quantity of activity) in previous years so it's hard when will count labor requirements for the new unit. This method can be used to calculate the level of the institution.

The method of calculating HR needs based on workload (WISN) is a method of calculation HR needs based on real work load carried by each category of human resources in each work unit. The advantages of this method are easy to operate, easy to use, technically easy to implement, a comprehensive and realistic. The calculation step SDM based WISN includes 5 steps: (1) Establish working time available (2) Establish working units and categories of HR (3) Develop a standard workload (4) Developing standard clearances (5) Calculation of energy per unit workWISN (Workload Indicator Staffing Needs).

Based on these data is then performed calculations to determine the time available with the following formula:

Available Working Time = {A – (B+C+D+E)} X F

Description:

A = Working Day   D = National Holiday

B = Annual Leave   E = Absent

C = Education and Training   F = Working hour

IV. CONCLUSION

Currently the formation of employees based on six areas studied had a formation that does not agree with the calculated optimum needs of employees based on the method WISN. Based on Table 21, it can be seen that the admin and operator control material as a whole had excess staff of about seven people, and operator safety QC and development experience as well excess of 5 people. As for shipping operators experiencing a shortage of 7 people, and then staging operator experiencing a shortage of 14 people. As for the carrier supply shortage packing 19 people and experiencing a shortage of 15 people. Research conducted on six areas of work PT BLSI PT HPPM to perform the method WISN get the average result indicating that there is a shortage and excess employees in this case. If the company does not recruit in the near future rotation some operators may provide for the optimum current.

Table 21 Calculation of Employee needs base on WISN Method

No.	Category SDM	Total Shift	Available	Optimum Needs (per-shift)	Total Section	Total Optimum Needs	Over Minus
1	*Admin & Material Control*	1	14	7	1	7	(+) 7 orang
2	*Safety QC & Development*	1	11	6	1	6	(+) 5 orang

3	*shipping*	3	20	9	1	27	(-) 7 orang
4	*Staging*	3	122	9	4	108	(+) 14 orang
5	*Supply*	3	62	9	3	81	(-) 19 orang
6	*Packing*	3	69	7	4	84	(-) 15 orang

Ratio Labor PT BLSI

From the results of counting the amount of energy that should be 7 to admin operator and material control, 6 to operator safety QC and development, 27 shipping operator, 108 operator staging, 81 to supply operators, and 84 people for packing operator. While the current state of the workforce today, namely, 14 for admin and material control, 11 people to safety QC and development, 20 people for the operator of shipping, 122 for operator staging, 62 for operator supply, and 69 people for the operator packing.

Table 22 Ratio Calculation of Employee Needs base on WISN Method

No.	Category SDM	Available	Total Optimum Needs	Over Minus	Ratio WISN
1	*Admin & Material Control*	14	7	(+) 7 orang	2,00
2	*Safety QC & Development*	11	6	(+) 5 orang	1,83
3	*shipping*	20	27	(-) 7 orang	0,74
4	*Staging*	122	108	(+) 14 orang	1,13
5	*Supply*	62	81	(-) 19 orang	0,77
6	*Packing*	69	84	(-) 15 orang	0,82

Comparison between the labors provided by labor optimum operator can know the ratio of 2.00 admin and material control, operator safety and development QC 1.83, 0.74 shipping operator, operator staging 1.13, 0.77 supply operators, and the operator packing 0.82. In the book User Manual WISN (WHO 2010) explained that if the power ratio value is one, meaning that the number of personnel in accordance with the demands of the workload (the amount is sufficient), while the value ratio of less than one indicates that the amount of labor is not in accordance with the workload (shortages labor). The smaller ratio is greater the workload. Based on this indicates that the amount of labor for the operator admin & material control, safety QC & development, and not in accordance with the staging operator workload is too light because the workload is smaller than the number of employees. While the shipping operators, supply, and the packing is not in accordance with the workload as the workload is greater than the number of employees available.

Implication Managerial

This research is expected to have implications for the companies to pay attention to the workload and the optimum number of employees who have to give maximum results in line with targets set by the company. This is because this study gives an overview and results that excessive workloads or less and the number of employees who are not optimum can affect the outcome of the work. The following managerial implications that can be input to the admin area and material control, safety QC and development, shipping, staging, supply, and packing achieve maximum results.

1. The number of employees in the admin area and material control is still a little bit due to the condition where the first PT HPPM have a production CVT, MCVT, ATM, 4WD, and BELT phenomenon occurs due to over production, the model did CVT start

production and begin to decrease due to ATM at the end of 2017 will be discontinued so that the resulting excess employees in these areas. Excess employees resulted in a loss of time in that area. It is strongly opposed to the policy of PT HPPM that values efficiency in every area. However it is very beneficial for the PT BLSI and be detrimental to the PT HPPM, therefore, the need for reduction of employees in the area, and the excess can be directed employee gets more demanding. If employees in these areas are still a contract employee, it can be reduced while still wait until the employee contract runs out. This condition will continue to run until the contract runs out on the status of contract employees. This can be done by them and work efficiency will be achieved when the number of employees is in accordance with the needs of the workload that exists today.

2. Activity is on safety area QC and development is still felt to be too much, especially in the area oflogistic BLSI because these activities can be done by 6 people. Seen from the high idle time on the field because the system is running in this area is already more neat and better than ever before. Skill up is done in this area was considered quite successful because the area is pretty much doing routine activities, so that more experienced employees in the area, the more the employee is able to be faster in completing the job.

3. He made zero overtime policy to minimize non efficient job so we encourage employees to complete the work in accordance with a predetermined target or a target refers to the production plan.

4. Need for reduction of employees in the admin area and material control, quality safety and development, as well as the staging with the number of 26 people. In employee attrition is not necessarily immediately decided to dismissal of employees, but with the condition of the large number of permanent employees, then this condition must be adjusted by means of a mutation treatment to areas that have excess employees.

5. In the area of supply, packing, and shipping it should be done immediately because of the addition of the load of work that are arguably high plus another abnormal conditions occur so it needs to pursue reach production targets. The addition of the three areas amounted to 41 people.

6. In addition to the reduction and additional personnel for the future need for changes to the layout whose function is as a deduction from the cycle time in each work area.

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