

Labor Productivity and Its Managerial Implications at XYZ Tea Processing Company, Indonesia

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ABSTRACT

As one of the business units of A-University, XYZ should be managed based on appropriate managerial principles and apply Smart Eco Bioproduction. This study was conducted to understand the workload and managerial implications needed to increase employee productivity. The method used in this study is the census method with distributing a questionnaire. The daily working time at XYZ is 8 hours with a break of 1 hour, with an effective working day of 6 working days, Monday to Saturday, and a total of 321 working days used in this study. The results showed that 94% of occupations had an FTE below one, with the lowest FTE 0.277 and the highest FTE 4.037. It shows that, in general, XYZ has an excess workforce in all fields of position. Reduction of the workforce and or the addition of new activities is expected to increase employee productivity. However, this research needs further research related to the issues such as employee's loyalty and motivation.

Keywords: *employee, FTE, workload.*

1. INTRODUCTION

XYZ is an alias trade mark of a tea company processing in Yogyakarta, Indonesia. In line with the research map of Faculty B, University A, entitled Smart Eco Bioproduction, the existence of XYZ as a business unit owned by State Universities with Legal Entities (PTNBH) should be managed in a smart way so that it can provide benefits not only economically but also socially, academically, and environmentally. XYZ not only aims to collect as much profit as possible but also carries out the mandate of the Tridharma of Higher Education.

For this reason, managerial decisions should be made based on the results of research conducted in an academic setting. XYZ has five business units and one business warehouse located in Samigaluh. Although Samigaluh is lined up as a business warehouse, Samigaluh is also a center for premium tea processing. Samigaluh business warehouse is managed based on a partnership pattern (plasma). Responsible for the socio-economic conditions of the surrounding community.

Employee planning is crucial in human resource management, one of which is planning for the recruitment or termination of employees. The workload becomes a variable that will determine work productivity, job satisfaction, and turnover rate. The condition of excess or shortage of employees is not suitable for the company to achieve its goals. Therefore, it is necessary to formulate the standard amount of time for activities carried out by employees and the workload that an employee must bear.

There are 3 levels to classify the workload, namely workload above normal (overload), normal workload (inload), and workload below normal (underload) [1]. There are several methods that can be used to analyze the objective workload, one of them is Full Time Equivalent (FTE) [2], [3], [4], [5]. Actually, workload is very influential on labor productivity. This can impact management practices in a particular organization [6], [7].

According to Moekijat (1991), the employees' determined the company's success in achieving its goals. Companies must get qualified employees to do a job well.

One of the essential activities in the procurement of employees is the planning of workforce needs. In this study, it is also known that employees at the Ujung-Kamal pedestrian bridge experience work overload. However, some jobs cannot be reduced, while additional employees cannot be done. An example of work that cannot be reduced in the presence of entertainment fillers on the ship, so it is recommended that entertainment be replaced with other entertaining facilities [8].

Research at the MPC Department shows that a reduction in employee numbers is needed because the FTE results show a smaller number when compared to the existing number of existing human resources [9]. Meanwhile, the research results in 2018 at PTPN VIII at the head office found that almost all employees in the plant section experienced work overload except for tea staff. The same level of work may not have the same workload because of the non-standard distribution of tasks between one unit and another [10]. Conducted research on human resource planning was at the Human Resources Development Bureau of Papua Province. Based on this research, it is known that HR planning has a positive effect on employee performance. It means that the better the HR planning, the better the performance is shown by the employee [11]. Research at PT Asialink Holidays in Sanur shows that additional employees are needed because all employees experience work overload with no labor turnover [12].

Based on these studies, it is necessary to know how the condition of the workforce in the Samigaluh Warehouse Unit is. The purpose of this study was to calculate the workload on structural officials, both technical and non-technical, in the tea factory of the Samigaluh unit and formulate managerial implications as a result of the calculation of employee workloads.

2. RESEARCH METHODS

The primary method used in this research is a descriptive method, which is a research method that focuses on a problem at present by collecting data, compiling and analyzing it. The descriptive method is intended for careful measurement of social phenomena [13]. The descriptive method describes the relationship between the phenomena being investigated, test hypotheses and make predictions and implications of a problem to be solved [14].

In the descriptive method, the data was analyzed individually by using descriptive analysis. Researchers suggest that descriptive research with an analytical approach will analyze the data further descriptively to determine the comparative relationship between variables [15]. The research was conducted at XYZ Warehouse Samigaluh throughout October 2020. The types of data used include primary data and secondary data. Primary data was obtained from respondents,

through direct census and interview in the field. There were 18 respondents. Secondary data were collected from various agencies related to the research. Data were collected in two ways, namely observation and interviews. The observation technique is a way of collecting data by direct observation in the field. The interview technique is a way of collecting data by asking directly to the respondent by using a tool in the form of a list of questions (questionnaires), which makes it easier to obtain information that is directed and by the nature and purpose of the study. The research method is demonstrated by following these steps:

1. Inventory each type of work performed by each employee for one full year.
2. Calculate the standard time for the work done. Standard time is found using the formula:

$$\frac{\text{Normal time}}{1 - \text{percent delay}} \quad (1)$$

3. Counting the number of available human resources.
4. Calculation of active working days for an entire year.
5. Calculating Full Time Equivalent (FTE) with the formula:

$$\frac{\text{The volume of activity during the year is based on standard time (minutes)}}{\text{time available for a whole year (minutes)}} \quad (2)$$

The evaluation criteria for FTE:

- 0-0.99 : underload
- 1-1.28 : fit or normal
- >1.28 : overload

3. RESULT AND DISCUSSION

3.1. Profile of XYZ Warehouse Samigaluh

XYZ Warehouse Samigaluh is one of the business units owned by XYZ as a private company engaged in Plantation, Trade, Industry and Consulting, which is managed by University A. The business warehouse or Samigaluh Business Unit is located in Pagerharjo Village, Samigaluh District, Kulon Progo Regency, Yogyakarta. The Samigaluh Business Unit is the only tea factory in the Menoreh hills with approximately 46 hectares of partner farmers. The Samigaluh business unit is divided into two business units, the tea unit and the cocoa unit. This study explicitly identifies the workload of the tea garden unit.

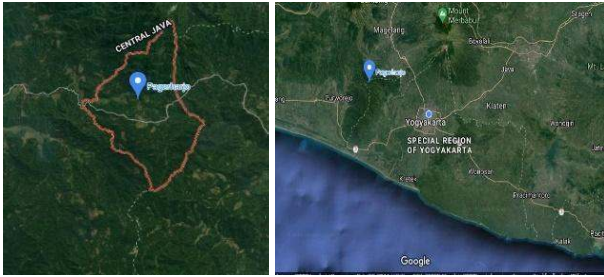


Figure 1. Map Location of Pagerharjo Village, Samigaluh District.

XYZ tea products are exported to several foreign countries. Some of the problems faced by XYZ based on observations in the field are:

3.1.1. Low productivity of plasma tea gardens.

The relationship between nucleus estates and plasma estates should be a reciprocal relationship where the nucleus estates guide smallholders in plasma plantations. In this case, the relationship between the Samigaluh Warehouse Business Unit and plasma farmers needs improvement. The coaching function needs to be intensified so that the productivity of plasma farmers' plantations is expected to increase.

3.1.2. Small capacity of tea processing machine.

Small engine capacity is suspected to be one of the causes of less than optimal factory productivity. For example, on a milling machine, the milling machine only has a capacity of 5 kilograms, so that the milling cannot be completed at one time.

3.1.3. Workers who are suspected of being underloaded

The employees of the Samigaluh business unit consist of permanent employees and cash employees. What is meant by permanent employees are employees who are paid regularly and monthly and the number of permanent employees is ten people. Meanwhile, cash employees are paid according to the number of days entered with a wage of IDR 70.000,00 per day. Cash employees as many as eight people. The tea factory in one day processes 300 kg of tea raw materials. With the existing machine capacity, it is suspected that the number of employees is too many, so there is a lot of time left.

3.2. Respondent Profile

Respondents in this study amounted to 18 people, ten permanent employees and eight contract employees with wages in several days. The daily entry fee is IDR 70.000,00. The table shows the distribution of employees in the Samigaluh business unit.

Table 1. Employee Profile of Samigaluh Warehouse Unit

Components (Year)	Lowest (year)	Highest (year)	Average (year)
Age	30	62	48
Education	6	16	11
Length of work	7	34	23

Source: Primary data processed, 2020

Based on the table, it is known that the average age of employees in the Samigaluh business unit is 48 years, which is still in the productive age range. The oldest age of the employee is 62 years. This age is still in the productive age range but has entered retirement age. The average education is 11 years, which means that at least the employees of the Samigaluh business unit have completed nine years of education. With this junior high school level education, employees are expected to carry out technical activities. The thing that stands out from the characteristics of employees is the length of work in the Samigaluh Business Unit, with an average of 23 years. More than enough time to show employee loyalty to the company.

Responding to problems regarding employment, an analysis of the workload calculation was carried out using the standard time and Full-Time Equivalent (FTE) methods. The FTE value is calculated and compared with the number of factual workers in the calculation year for each type of activity. In this study, the calculation year covers the working period from October 2019 to October 2020. The daily working time at XYZ is 8 hours with a break of 1 hour. Effective working days are six working days, Monday to Saturday. The total working days during October 2019-October 2020 were 321 working days.

Table 2. Full-Time Equivalent (FTE) Employees of the Samigaluh Business Warehouse Unit

No	Occupation title	Total Activity Time (Minutes)	Total Available Time (Minutes)	Number of Factual Employees	FTE (load per person)
1	Head of Warehouse Production Unit Samigaluh	103,680	134,820	1	0.769
2	Head of Processing	67,356	134,820	1	0.500
3	Finance Officer	67,320	134,820	1	0.499
4	Head of Administration or Public Administration	37,320	134,820	1	0.277
5	Tea Production Administration	105,360	134,820	1	0.781
6	Administration and Tea Packaging	544,320	134,820	1	4.037
7	Physical Cash Book Holders and in Logistics Warehouse	105,300	134,820	1	0.781
8	Mechanical Engineering and Tea Processing	228,480	134,820	2	1.695
9	Security	278,640	134,820	4	2.067
10	Mechanical Technician	98,640	134,820	1	0.732
11	Driver	98,640	134,820	2	0.732
12	Processing Section	129,024	134,820	4	0.957
13	Field Officer	115,200	134,820	2	0.854
14	Processing and Analysis Section Tea Buds	66,720	134,820	1	0.495
15	Processing and Analysis section Tea Buds	93,600	134,820	1	0.694

Source: Primary data processed, 2020

Based on table 2, most employees experience an underload condition indicated by an FTE value below 1. The administrative and tea packaging positions have an FTE index of 4.037. This shows that the actual need for employees is four people, but the current factual employee is only one person. This means that the employee is currently in an overload condition. The positions of technicians for machinery and tea processing are insufficient, where the need for employees is two and factual employees are two people. In the security department, the actual need for employees is only two people according to the FTE score (2,067), but the current number of employees is 4. The number of employees is too many. The same applies to the positions of drivers, processing departments, and field officers. Based on the employee's workload perspective, half of the respondents stated that the work in the Samigaluh Business Unit was in a very light to light status.

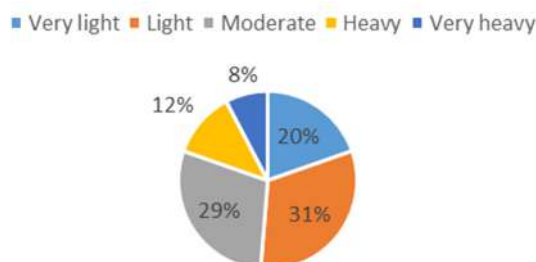


Figure 2 Workload Perspective by Employees.

Supporting the results from the previous table, where most types of positions in the Samigaluh Business Unit are under load and still relatively light. It is necessary to redistribute work to employees. Reducing employees for certain divisions and moving them to other divisions that need them can be a solution in managerial implications. However, the transfer of employees must take into account the capabilities of the employee. Some training may be needed in this case, to increase the working capacity of the employees.

4. CONCLUSION

94% type of position in the Business Unit Samigaluh are in underload conditions with employees in FTE levels between 0.5 to 0.8. One of the positions, namely the administration and packaging of tea, is overloaded with three additional employees. The employee's perspective on workload shows that 51% of employees think that the types of activities in the Samigaluh Business Unit are in the very light to light category.

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