ANALYSIS OF EMPLOYEE WORKING LOAD IN BINA MANDIRI GORONTALO UNIVERSITY USING FULL TIME EQUIVALENT METHOD

Nur Naningsih Daud[1)], William I.S Mooduto[2)], and Djamila Podungge[3)]
[1,2,3)] Universitas Bina Mandiri Gorontalo
E-mail: daudnaningsih@gmail.com

ABSTRACT

This study aims to determine the workload of each employee at Bina Mandiri University Gorontalo.

This research uses descriptive research. Respondents of this study were 38 people who were employees of the Bina Mandiri Gorontalo Campus. Data analysis used Full Time Equivalent (FTE).

The results showed that the workload of Bina Mandiri University Gorontalo employees using the FTE method, of the 38 employees there were 30 employees who had normal workloads, 8 employees had underloaded workloads, and no employees had overloaded workloads.

Keywords: analysis, employee workload, *Full Time Equivalent* (FTE)

INTRODUCTION

The workload charged to employees can occur in three conditions. First, the workload is up to standard. Second, the workload is too high (over capacity). Third, the workload is too low (under capacity). Workloads that are too heavy or light will result in work inefficiency. A workload that is too light means that there is an excess of labor. This excess causes the organization to pay more employees with the same productivity, resulting in cost inefficiency. Conversely, if there is a shortage of workers or a large number of jobs with a small number of employees, it can cause physical and psychological fatigue for employees. Finally, employees become unproductive because they are too tired [5].

Furthermore, excessive workload can be interpreted as a workload that is too much work, less time available, and the absence of system support consumes reserves of resources and the impact on decreasing the quality of work [5].

The Full Time Equivalent method is a method that is widely used in the analysis of employee workloads in a company or agency. Full Time Equivalent (FTE) is a workload analysis method which is carried out by comparing the work completion time and the available work time effectively. The measurement of the FTE value is carried out by calculating the workload of all employees in one work unit for a certain period [11].

From the results of preliminary observations made by researchers so far in the Bina Mandiri University Gorontalo environment, researchers see that most of the employees at the Bina Mandiri University Gorontalo, most of the employees who work as staff also work as educators, the workload that is not appropriate for each employee is known can affect the work results of each employee so that it will affect the progress of a university. Where it is known that Bina Mandiri University Gorontalo is a university that was recently formed. So it takes employees with good work effectiveness to achieve the vision, mission and goals of Bina Mandiri University Gorontalo. Based on the results of preliminary observations by researchers regarding the number of employees at Bina Mandiri University to date, there are 62 people. The following is a description of the number of employees in the Bina Mandiri University Gorotalo environment:

Table 1. The Number of Employees at FEB

№	Position	Number of employees
1	Dean	1
2	Vice Dean	2
3	Head of study program	3
4	Administration	1
5	Service	2
6	Lecturer	13
7	CCLC	2
8	Cs	4

Table 2. Recap of The Number of Employees at FSTIK UBMG

№	Position	Number of employees
1	Dean	1
2	Vice Dean	3
3	Head of study program	4
4	Lecturer	12
5	Administration	1
6	Service	1

Based on the results of preliminary observations, the researcher is interested in conducting research on the analysis of workloads on employees of Bina Mandiri University Gorontalo through High, Medium and Low workloads using the Full Time Equivalent method.

RESEARCH METHODS

This type of research is a descriptive study that will present the results of the workload of employees at Bina Mandiri University, Gorontalo. Descriptive research is research that aims to explain or describe an event, condition, object whether people, or everything related to variables that can use either numbers or words [6].

Descriptive research does not only cover the problem of collecting and arranging data, but also includes analysis and interpretation of the meaning of the data. Therefore, descriptive research may take the form of comparative research, which is a study that compares one phenomenon or symptom with other phenomena or symptoms, or in the form of a quantitative study by setting standards, assessing, classifying, and the relationship between the position of one element and the element. other.

There are times when researchers classify and research phenomena by setting a standard or a certain norm so that many experts call this descriptive method the name normative survey or normative survey.

With this descriptive method, the position or status of the event or factor is also investigated and sees the relationship between one factor and another. Therefore, descriptive methods are also called status studies or status studies.

The approach in this research is a quantitative approach, because this research is presented with numbers. Quantitative research is a research approach that is often required to use numbers, starting from data collection, interpretation of the data, and the appearance of the results. The quantitative research approach focuses its attention on symptoms that have certain characteristics that vary in human life, which are called variables [3]. The nature of the relationship between variables is analyzed using an objective theory. Because the study objective of quantitative research is symptoms, while the symptoms that exist in human life are not limited and are not limited to possible variations and hierarchies. Quantitative research focuses on variables, even before the research is conducted, the variables to be studied are studied.

Based on the methods used, quantitative research can be classified as follows:

1. Quantitative Experimental Research Experiment as a study in which at least one independent variable is called an experimental variable is deliberately manipulated by the researcher [4]. Meanwhile, Subna and Sudrajat stated that experimental research (Experimental Research) is research that sees and examines the existence of consequences after the subject is subjected to treatment aims to see the causal relationship. Type of experimental research based on the research location:
   a. Laboratory Eksperiments,
   b. Field Experiments.

   Based on the level of precision achieved, experimental research consists of:
   a. Pra Eksperimen,
   b. Quasi-experiments,
   c. *True-Experiments.*
2. Expost Facto Quantitative Research Another term for this research is post-activity research, some call it comparative casual research. Comparative causal research or post facto research is research in which the researcher attempts to determine the causes or reasons for the existence of differences in behavior or status in groups of individuals and the researcher attempts to identify the main factors that cause these differences [4]. Exposing facto research is research that studies facts that already exist / have occurred using experimental designs.
3. Correlational Quantitative Research Correlational research describes a general approach to research that focuses on estimating covariates among naturally occurring variables [4]. Meanwhile, Nana Sudjan and Ibrahim in their book entitled "Educational Research and Assessment", said that correlation research studies the relationship between two or more variables, namely the extent to which the variables in one variable are related to variations in other variables. From these two opinions, it can be concluded that correlational research is a study that involves the act of collecting data in order to determine whether there is a relationship and the level of relationship between two or more variables.

The time of this research was conducted for 2 months starting from September to November 2020. Location This research was conducted at Bina Mandiri University Gorontalo which is located on Jl. Prof. Dr. Aloei Saboe No. 173, Wongkaditi Village, Gorontalo City. The author chose Bina Mandiri Gorontalo University, because the writer found a problem that was quite interesting if he examined it more deeply at the same time related to the title being observed at this time.

Workload is a number of work targets or target results that must be achieved in a certain time unit. Workload is the main aspect that forms the basis for calculating employee formation, in this case the workload can be measured using the Full

Time Equivalent (FTE) method. Full Time Equivalent is a method by measuring the length of time to complete a job and then this time is converted into an index of the FTE value.

The population is a generalization area consisting of objects / subjects that have certain characteristic qualities that are determined by the researcher to study and then the conclusion is drawn, the population in this study are 62 employees at the Bina Mandiri University Campus, Gorontalo [8].

The sample is a study of a small portion of certain elements of a population or population that becomes a resource or as a representative of a population [8]. This sampling must be done in such a way that the sample can truly represent (Representative) and can describe the actual population. The sample used was 62 people as the population. If the population is less than 100, all members of the population are sampled. Saturated sampling or another term for census is that all members of the population are sampled [10].

Research instruments are tools used in the method of data collection by researchers to analyze the results of research carried out in the next research step. In principle, the research instrument has dependence on the required data, therefore each study chooses a different research instrument from one another. The research instrument is a test that has the characteristics of measuring informants with a number of questions and statements in the study, which can be done by making an outline of the research objectives [7].

The data collection method is the most important step in research, because the main purpose of research is to get data [10]. Data collection can be done in various settings, various sources, and in various ways in order to obtain the data and information needed, the authors use data collection as follows:

1. Secondary Data, Data obtained from literature and reading books that are closely related to the object of research through: library research (Library Research). Through studies to obtain information from books that match the research title. This literature research is carried out through documentation studies, namely by looking at the literature and writing materials as input in research.
2. Primary Data
   a. Interview, the interview is used as a data collection technique when the researcher conducts a preliminary study to find a problem that must be researched and also if the researcher wants to find out more about the respondents and the number of respondents is small / small. Interviews can be conducted in a structured manner (the researcher already knows exactly what information will be obtained) or unstructured (the researcher does not use interview guidelines that have been arranged systematically and completely as data collectors) and can be carried out directly (face to face) or indirectly. directly (via media such *as telephone).*

   b. *Kuesioner,* the questionnaire is a data collection technique which is carried out by giving a set of questions or written statements to the respondent to answer. And it is an efficient data collection technique if the researcher knows exactly what variables to measure and knows what is expected from the respondent. A questionnaire is also suitable if the number of respondents is large enough and spread over a large area.

c. Observation, Observation is a data collection technique that has specific characteristics when compared to other techniques, namely interviews and questionnaires. Because observation is not always with human objects but also with other natural objects. Observation is a complex process, a process composed of various biological and psychological processes [9]. Two of the most important are the processes of observation and memory.

The data analysis technique uses the Full Time Equivalent method with the following steps:

1. Determine the work unit and its energy category.
2. Determine the available work time for one year. The data needed to determine working time in a year are: working days, annual leave, education and training, national holidays, absenteeism and working time.
3. Preparing Allowance Standards, the purpose of compiling this data is to determine employee allowances which include types of activities and time requirements in completing an activity that is not related to the main activity. Activities that are not directly related include resting, praying or going to the toilet and several other activities.
4. Establish workload standards Workload standards are the volume of workload felt by employees in completing their work (average time).

Calculating the need for manpower per work unit. At this stage the researcher tries to obtain the number and categories of employees who work in accordance with the workload.

RESEARCH RESULT

To calculate workload, it requires institutional work time. Below is the number of days that will be used in calculating the workload of employees as shown in Table 3.

Table 3. Number of Work Days and Institutional Holidays in 2019

Calculation	Amount	Unit
1 Day	9	Hours
1 Week	6	Day
1 Month	26	Day
1 Year	365	Day
Holiday		
Public Holidays	20	Day
Sunday Off	52	Day
Institutional Policy Holidays	7	Day
Total Holidays	**79**	**Day**

Based on table 3 above, the calculation of national holidays, weekends, institutional policy holidays that have been done above, the working hours in one year are obtained as follows:

Table 4. Calculation of Working Effective Hours

Calculation	Amount	Unit
Weekdays 2019	286	Day
Working Hours Per Year	2574	Hours
Effectiveness of Work	89	%
Total Effective Working Hours Per Year	2288	Hours

Based on table 4.3, it is known that the effective hours of employees working in one year are 2574 hours / year. In fact, employees often resume work after a break is not according to the hour so that the work effectiveness time is 89% (1-hour break or 11%). The total work effectiveness is obtained from the reduction in the allowance value, namely 100% - 11% = 89%. After doing the calculation, the effective working hours are only 2288 hours / year.

Furthermore, the employee workload calculation will be carried out using the Full Time Equivalent method. The workload calculation is based on the total employee working time per year, allowance time and effective working hours. Dewi and Satrya (2012) refer to the workload analysis guidelines issued by the State Personnel Agency in 2010, revealing the implications of the FTE value divided into 3 types, namely overload, normal, and underload, with the following criteria

a) > score 1,28 = overload,
b) 1 -1,28 = normal
c) 0 - 0,99 = underload or workload

Calculation of the workload of the Bina Mandiri Gorontalo campus employees using the formula.

$$FTE = \frac{\text{Total Working HoursYear + Allowance (Loose Time/Rest)}}{\text{Effective Working Time Per Year}}$$

The results of the calculation of the workload value using the FTE of Bina Mandiri University Gorontalo employees can be seen in table 4.4 below

Table 5. Calculation of Employee

№	Respondents (Employees)	Work Unit	FTE value	Description
1	Employee 1	Human Resource Development Center	1,20	Normal
2	Employee 2	FSTIK	1,18	Normal
3	Employee 3	FSTIK	1,19	Normal
4	Employee 4	FSTIK	1,11	Normal
5	Employee 5	FSTIK	1,18	Normal
6	Employee 6	FSTIK	1,16	Normal
7	Employee 7	Ka Lab FSTIK	1,20	Normal
8	Employee 8	FSTIK	1,16	Normal
9	Employee 9	FSTIK	1,15	Normal
10	Employee 10	General Administration Bureau	1,20	Normal
11	Employee 11	Feb	1,18	Normal
12	Employee 12	Feb	1,08	Normal
13	Employee 13	Feb	1,18	Normal
14	Employee 14	Feb	1,20	Normal
15	Employee 15	CCLC	0,24	Underload
16	Employee 16	CCLC	1,17	Normal
17	Employee 17	CCLC	0,72	Underload
18	Employee 18	Feb	1,18	Normal
19	Employee 19	Feb	1,08	Normal
20	Employee 20	FSTIK	0,87	Underload
21	Employee 21	Feb	0,76	Underload
22	Employee 22	FSTIK	0,70	Underload
23	Employee 23	FSTIK	1,18	Normal
24	Employee 24	FSTIK	1,15	Normal
25	Employee 25	FSTIK	0,80	Underload
26	Employee 26	Bureau of Academic and Student Administration	0,49	Underload
27	Employee 27	LPPM	0,24	Underload
28	Employee 28	Feb	1,17	Normal
29	Employee 29	Quality Assurance Agency	1,20	Normal
30	Employee 30	Feb	1,20	Normal
31	Employee 31	Feb	1,20	Normal
32	Employee 32	Feb	1,15	Normal
33	Employee 33	Feb	1,14	Normal
34	Employee 34	Feb	1,18	Normal
35	Employee 35	Feb	1,19	Normal
36	Employee 36	Feb	1,14	Normal
37	Employee 37	Feb	1,17	Normal
38	Employee 38	Feb	1,20	Normal

Source: Processed data (2020)

From table 5 above, it can be seen that the results of the calculation of the workload of Bina Mandiri University Gorontalo employees using the FTE method, of the 38 employees there are 30 employees who have a normal workload, 8 employees have an underload workload, and no employee has an overloaded workload.

DISCUSSION

The workload calculation method with the Ful Ttime Equivalent (FTE) is a method where the time used to complete various jobs is compared to the available effective work time. FTE aims to simplify work measurement by changing the hours of workload to the number of people required to complete a particular job [1]. The implication of the FTE value is divided into 3 types, namely overload, normal, and underload [2]. Based on the workload analysis guidelines issued by the state civil service agency in 2010, the total value of the FTE index above 1.28 is considered overload, between 1 and 1.28 is considered normal, whereas if the FTE index value is between 0 and 0.99 it is considered underload or insufficient workload.

For workload calculations using the FTE method on the Bina Mandiri Gorontalo campus, the result is 30 employees have normal workloads with FTE values between 1 and 1.28, 8 employees have underloaded workloads with the FTE index value between 0 up to 0.99, and no employee has an overloaded workload.

The condition of 8 employees with the FTE index value is between 0 to 0.99 because 3 temporary employees carry out an advanced study period, namely 15 CCLC work units, 17 CCLC work units and 27 LPPM work units, while 5 other employees are in a transitional period (becoming an employee at the Bina Mandiri Gorontalo Campus in the current month of 2019), namely employees of 20 FSTIK work units, 21 FEB work units, 22 FSTIK work units, 25 FSTIK work units and 26 FSTIK work units. and student affairs.

CONCLUSION

The results of calculating the workload of the Bina Mandiri Gorontalo Campus Foundation employees using the FTE method are as follows:

1. 30 employees have a normal workload with FTE values between 1 and 1.28
2. 8 employees have an underload workload with the FTE index value ranging from 0 to 0.99
3. No employee has an overloaded workload.

REFERENCES

[1] Adwiyah, W. & Sukmawati, A. (2013). Analysis of Human Resources Work-load in Lettuce Vegetable Commodity Production Activities (Case Study: CV. Spirit Wira Utama). Organizational Management, IV(2), pp.

[2] Adianto, G. K. K. & E. (2014). Measu-rement of Employee Productivity with the Full Time Equivalent (FTE) Met-hod PT. Astra International Tbk Astra Motor Division Placement of Jakarta Honda Center. JIEMS, 4(1), pp.

[3] Arikunto, S. (2006). Quantitative Re-search Method. Jakarta: Earth Literacy.

[4] Emzir. (2015). Educational Research Methodology: Quantitative and Quali-tative. Jakarta: Rajawali Press.

[5] Mashudi, I. (2021). Dampak Komitmen dan Budaya Mutu terhadap Kinerja Guru. Ideas Publishing.

[6] Novera, W. (2010). Analysis of Work-load and Employee Needs of Academic Administration and Student Affairs. Bogor Agricultural Industry.

[7] Punaji (2010). Educational Research and Development Methods.

[8] Sukmadinata, (2010). Research instru-ment.

[9] Sugiyono. (2010). Quantitativ Research Methods, Qualitative and R & D. Second Edition. Bandung: Alfabeta.

[10] Sugiyono, Research methodology (2012)., https://repository.uksw.edu/bitstream/123456789/18232/3/T1_272014016_BAB%20III.pdf

[11] Sugiyono, (2013). Quantitative Research Methods, Qualitative and R & D, Bandung: Alfabeta.

[12] Wardanis, D. T. (2018). Analysis of the Workload of Medical Record Personnel at Surabaya Surgical Hospital using the FTE Method. Indonesian Journal of Health Administration.