Enrichment: Journal of Management, 12 (4) (2022)

Published by: Instiute of Computer Science (IOCS)

Enrichment: Journal of Management

Journal homepage: www.enrichment.iocspublisher.org

Workload Analysis Using the Full Time Equivalent (FTE) Method to Optimizing Labor

Hendra Kurniawan[1], Yulianah[2], Rizkiana Karmelia Shaura[3]

[1,2,3]Universitas Bina Sarana Informatika, Jakarta, Indonesia

ARTICLE INFO

Article history:

Received Sept 11, 2022
Revised Sept 18, 2022
Accepted Oct 9, 2022

Keywords:

Full Time Equivalent
Legal Settlement
Workload Balance

ABSTRACT

The purpose of this study was to determine how the workload of the legal settlement unit and its supporting units and to determine the optimal number of workers at PT Telkom Indonesia (Persero), Tbk. This study uses the Full Time Equivalent (FTE) method, a workload analysis method that measures the length of time for completion of work. Based on the results of research using the FTE method, it is known that there is an imbalance in the workload of 8 units. Where there are 6 units with excessive workloads including the Legal settlement unit, 3 proposed workers are needed, Telkom regional 3 needed 7 proposed workers, Telkom regional 4 needed 4 workers, Telkom regional 5 needed 3 proposed workers, Telkom regional 6 needed 2 workers proposed work, and telkom regional 7 needed 2 proposed workers, while only 2 units had a normal (fit) workload, namely regional telkom 1 and 2. The result is that the total workload on all units can be carried out by 42 workers. And then the workload balance value is greatly increased from the previous 5% to 80%.

Corresponding Author:

Hendra Kurniawan,
Universitas Bina Sarana Informatika,
Jl. Kramat Raya No.98, RW.9, Kota Jakarta Pusat, Daerah Khusus Ibukota Jakarta, 10450, Indonesia
Email: hendra.hku@bsi.ac.id

INTRODUCTION

Human resource planning in a company or organization is an important thing to note, because without quality human resources in terms of quantitative and qualitative terms, the company or organization will not be able to achieve the goals of the company or organization (Almasri, 2016). According to Siagian (2018) that human resource planning is making decisions now about things that will be done in the future. Human resource planning, which is the focus of attention by management in order to better ensure that the organization has the right workforce available to occupy various positions, positions and the right workforce at the right time (Riniwati, 2016).

Humans have an important role in the sustainability of a company, so it is important for companies to focus more on the conditions of their workers in completing the work given by the company (Ardiana et al, 2010) . Each job has a different workload depending on the type of work being done (Saputri et al, 2020) .

Manpower is an important thing in a company. The workforce is managed by one of the departments, namely HR (Abdullah, 2017). Matters related to employment in the company will be managed by the HR department (Elitan, 2002). Companies that always implement every form of

policies related to HR so that employees can work effectively and efficiently, but in reality, this has not been fully realized (Wirawan & Rahardja, 2015; Achmad, 2022). The main reason is that the workload measurement has not been applied to every position in the Legal Settlement Unit, so there is a mismatch between the workload and the number of workers which results in work inefficiency as well as an increase in workload (Hayati & Fitria, 2018).

Based on the results of initial observations, there are similarities in the percentage of productive values in each unit. This happens because the number of activities and work methods carried out in each unit is still the same. The legal settlement unit in 2021 has not yet calculated the workload, so it is necessary to calculate the workload to find out how much workload the legal settlement sub-unit at PT. Telkom Indonesia, Tbk and its supporting sub-units in handling legal cases.

The method used in this study is workload analysis theory because it is suitable for analyzing the workload of the legal settlement sub-unit of PT. Telkom. According to Pranoto & Retnowati (2021) that "workload analysis is an action that aims to determine the amount of time required by employees to complete a job". Workload analysis is very important to calculate exactly how much manpower is needed to complete all tasks in a section or unit in the company (Anida & Prastawa, 2019). In this study, identification of the job activity description of each worker, analyzing the workload for each worker and the number of workforce needs, the Legal Settlement unit section, using the Full Time Equivalent (FTE) method.

FTE is one of the methods used in the workload analysis process (Ajitia et al, 2017) . FTE itself is used to measure how much full-time labor will be required to complete the work (Dewi & Alghofari, 2020) . The advantage of this FTE method in increasing company productivity is that it "can optimize the workforce needed by the company" (Hudaningsih & Prayoga , 2019) . So in this study, researchers used the FTE method to evaluate labor needs. FTE is "the number of workers (people) needed to carry out and complete a certain set of activities in a certain period" (Pranoto & Retnowati, 2021).

From this explanation, it can be seen that in planning the number of workers it must be adjusted to the existing workload so as not to result in competition which will have an impact on losses or waste of the company (Mahawati et al, 2021). So this study aims to measure the normal time as a reference for calculating the workload as a basis for calculating the number of workers. It is hoped that by evaluating the standard time and workload, human resource management is better and the workforce can be optimized (Hudaningsih et al, 2019).

Based on the above background and what was obtained at PT Telkom Indonesia (Persero), Tbk, the researcher can give the title to the case study is "Workload Analysis Using the Full Time Equivalent (FTE) Method to Optimizing Manpower in the Legal Settlement Unit and The Supporting Unit is PT Telkom Indonesia (Persero), Tbk". This research is expected to be useful for the development of Economics and Management, especially in the field of Human Resource Management, especially in terms of determining the workload and number of employees that will be used by the company in optimizing the workload of employees. So it is hoped that this research can contribute to academics in developing a theory of human resource management.

RESEARCH METHOD

This research uses descriptive qualitative research method with case study design. According to Sugiyono (2019), qualitative research is a research method that is based on postpositivism or entrepreneurial philosophy which is used to examine the condition of natural objects, where the researcher is the key instrument. The data collection technique is done by triangulation (a combination of observation, interviews and documentation), the data obtained tends to be qualitative data (based on words), the data analysis is inductive or qualitative, and the research results are to understand the meaning, understand the uniqueness, construct phenomena, and find hypotheses. According to Ramdan (2021) descriptive research is a type of research that collects

data in the form of words and is described so that it is easily understood by others. According to Sugiyono (2019), the notion of case study research design in qualitative, namely case study research design in qualitative is one type of qualitative research in which researchers conduct in-depth exploration of a program, event, or activity process, against one person (resource person). or more".

Based on the explanation above, this study aims to describe or describe a situation related to workload analysis using the Full Time Equivalent (FTE) method to optimize the workforce in the unit (legal settlement) and its supporting units at PT.Telkom Indonesia, Tbk. . This study does not test the hypothesis, but only describes and analyzes the data so that it can find the formulation of the workload analysis in the Tegal Settelemt unit using the Full Time Equivalent (FTE) method.

RESULTS AND DISCUSSIONS

Full Time Equivalent (FTE)

Full Time Equivalent (FTE) according to Hudaningsih & Prayoga (2019) "Stating that FTE is one of the methods used in the workload analysis process". FTE itself is used to measure how many full-time employees will be required to complete a job." The workload calculation is based on the total standard time per each unit and the working time per year. Calculation of the workload of workers using standard time data and rating factors per job description of each unit which can be seen: (1) The legal settlement unit gets more workload or Overload where the workforce in this unit is 5 employees with a total FTE value of all activity elements of 7.78210. so that in order for the workforce to be effective and efficient, 3 proposed workers are needed to make it easier to do work in accordance with the needs that exist in the company, because the company has determined the standard workload of its employees. (2) The Telkom regional 1 unit gets a fit or normal workload where the workforce in this unit is 3 workers with a total FTE value of all activity elements of 2.82859 so that the workload at Telkom regional 1 is effective and efficient because has met the company's work standards where the work standard at the company is 1 to 1.28 which is called normal. (3) The Telkom regional 2 unit gets a fit workload where the workforce in this unit is 4 employees with a total FTE value of all activity elements of 4.17063 so that the workload at Telkom regional 2 is effective and efficient because it meets the standards company work where the standard of work at the company is 1 to 1.28 which is called normal. (4) In the Telkom regional 3 unit, the workload is very excessive or very Overload where the workforce in this unit is 2 employees with a total FTE value of all activity elements of 9,30596. so that in order for the workforce to be effective and efficient, a proposed number of workers is needed as many as 7 people because the workload at the regional Telkom is very high so that it can be easy to do work in accordance with the needs that exist in the company, because the company has determined the standard workload its employees. (5) In the Telkom regional 4 unit, the workload is very excessive or veryOverrload where the workforce in this unit is 2 employees with a total FTE value of all elements of activity of 6.223792. so that in order for the workforce to be effective and efficient, it is very necessary to have a proposed number of 4 people because the workload at the regional Telkom is very high so that it can be easy to do work in accordance with the needs that exist in the company, because the company has determined the standard workload its employees. (6) In the Telkom regional 5 unit, the workload is excessive or Overrload where the workforce in this unit is 2 employees with a total FTE value of all elements of activity of 5.3953. so that in order for the workforce to be effective and efficient, a proposed number of workers is needed as many as 3 people because the workload at the regional Telkom is very high so that it can be easy to do work if it is in accordance with the needs that exist in the company, because the company has determined the standard load employee work. (7) In the Telkom regional 6 unit, the workload is very excessive or very Overload where the workforce in this unit is 1 employee with a total FTE value of all elements of activity of 3,22324. So that in order for the workforce to be effective and efficient, it is very necessary to have a proposed number of 2 people because the workload at the regional

Telkom is high. employee workload. (8) The Telkom regional 7 unit gets more workload or Overload where the workforce in this unit is 2 employees with a total FTE value of all activity elements of 4.11275. so that in order for the workforce to be effective and efficient, 2 proposed workers are needed because the workload at the regional Telkom is high, therefore it can be easy to do work in accordance with the needs that exist in the company, because the company has determined the standard workload of its employees.

Normal Time and Standard Time Measurement

The activities of the manager of a unit consist of several jobs, the first of which are presenting work program documents, reaching documents, guaranteeing mitigation plan documents, ensuring documents for reviewing engagement drafts, ensuring legal opinion documents, and representing the company in mediation/negotiation efforts. Off 1-3 activities are to ensure that the document has been reviewed on the engagement draft, to represent the company in mediation/negotiation efforts, to represent the company in the trial of company legal cases, and to ensure the company's documents. Activities in each task consist of several units, the first is the legal settlement unit, there are 5 where there are managers and officers, Telkom Regional 1 (Sumatra) consists of 3 workers including managers and officers, Telkom Regional 2 (Jakarta & Banten) consists of of 4 workers including managers and officers, Telkom Regional 3 (West Java) Consists of 2 workers including managers and officers, Telkom Regional 4 (Central Java and DIY) which consists of 2 workers including managers and officers, Telkom Regional 5 (East Java, Bali, NTB, and NTT) which consists of 2 workers including managers and officers, Telkom Regional 6 (Kalimantan) which consists of 1 workforce including managers and officers, and the last Telkom Regional 7 (Sulawesi, Maluku and Papua) which consists of 2 workers, including managers and officers assigned to handle legal cases at the Telkom Indonesia company with different activities.

Normal time is the time for completion of work completed by workers in reasonable conditions with average abilities (Rachman, 2013; Suwanto et al., 2022). After getting the normal time, then calculate the standard time where the standard time is the time required by normal workers to complete the work done in the best work system. In this study, all data used in data processing on the previous page were obtained from direct observations by researchers such as the jobdesk of each unit, the cycle time of each activity element and from each unit, the rating factor of each unit then research on the units, allowances or allowances for each unit, then the data is tested for data adequacy and data uniformity tests. The results of the calculation of the data adequacy test in which all data are declared sufficient. Similarly, to test the adequacy of data on each other unit that the data is sufficient to represent the system. The cycle time taken by the researcher, all data has entered the upper control limit and lower control limit. To test the uniformity of the data, each element/ work unit is carried out.

After the observation data is sufficient and uniform, the next step is to determine the rating factor of each unit in carrying out work activities to find normal time in work process activities. Normal time as input for calculating workload using the Full Time Equivalent method, normal time is used because in the FTE method there is a calculation for the effective time in doing work (allowance).

Workload Analysis Using the Full Time Equivalent (FTE) Method

The workload calculation method with full time equivalent is a method where the time used to complete various jobs is compared to the available effective working time. FTE aims to simplify work measurement by converting workload hours to the number of people needed to complete a specific job. The implications of the FTE value being divided into 3 types are between values 0 – 0.99, it is considered underload or the workload is still lacking, between values 1 – 1.28 is considered normal (fit), while if the FTE index value is above < 1.28, it is considered underload. . For the calculation of the workload using the FTE method, the result is that in the Telkom Regional

Unit 2 the total workload is normal (fit) from 1.28, namely for 4 workers with a workload of 4.17 which is included in the very normal category. There is an overload in each unit because the process is quite long and the workload is not evenly distributed in each unit in each job. Legal settlement units, Telkom Regional 1, Telkom Regional 3, Telkom Regional 4, Telkom Regional 5, Telkom Regional 6, and Telkom Regional 7 the result of their workload is overload, namely <1.28.

Cause and Effect Analysis

To analyze why this can happen, researchers use fishbone diagrams to analyze the causes of things or factors that result in irregular work patterns or lack of manpower.

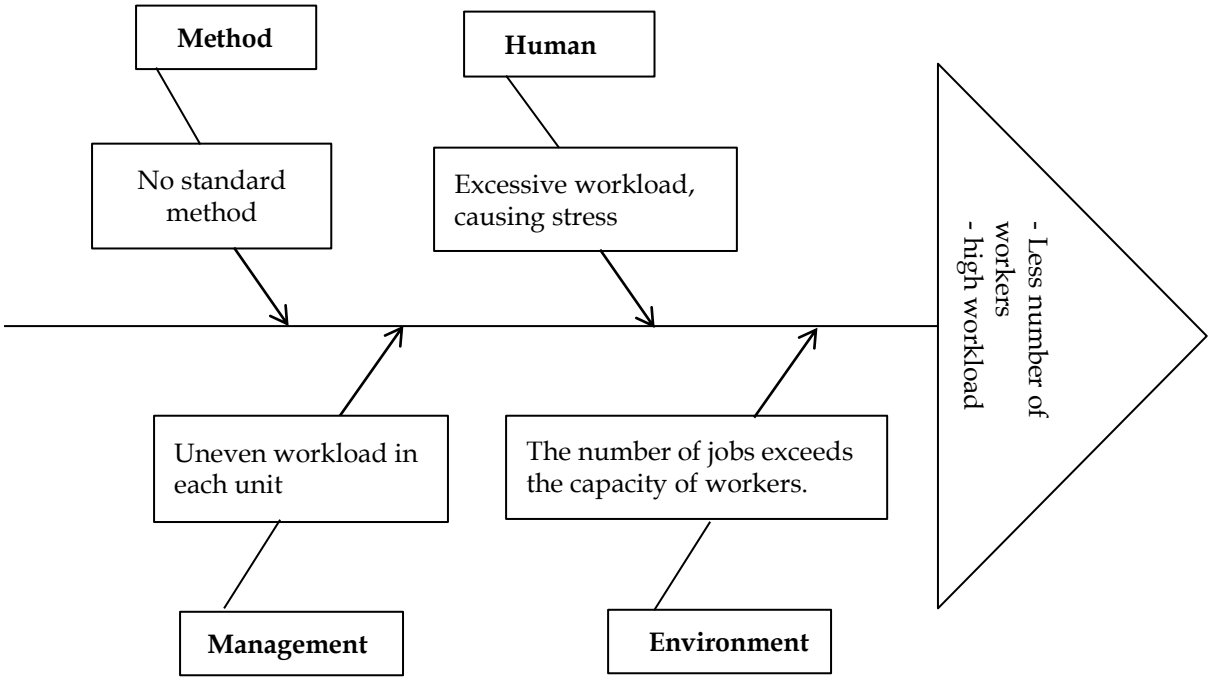

Figure 1. Cause and Effect Diagram of Legal Settlement Unit

To analyze why this can happen, researchers use fishbone diagrams to analyze the causes and effects of an excessive number of workers and non-optimal production results. For this stage, the problem of handling company cases is too long and is done repeatedly, resulting in a heavy workload.

To deal with the excessive workload related to legal case workers in solving problems during the trial, it is necessary to have more workers to take turns in handling cases until they are completed. For humans or the workforce themselves, they are still very excessive in doing their work so that it will result in stress because of the many jobs obtained.

For the management itself, the management has not done the standard time in the process of adjusting the workload. So that the calculation is only from the suitability of the existing work, resulting in an uneven workload. For the problem of work environment problems in each unit the number of workers doing work that is not their responsibility.

From the research and analysis that has been done, the researcher needs to recommend the right Human Resources (HR) strategy by considering the activities for the workers who are charged with, among others: (a) Giving rewards to employees who have good and satisfying performance to increase work motivation. (b) Giving workload to employees on their responsibilities. (c) Conducting workload analysis every year so that the workload at PT. Telkom Indonesia workload evenly.

Workload Balance Graph

Table 1. Prefix Number of Units

Sub Unit	FTE value	Normal FTE
Legal settlement unit	7.78	1.28
Telkom Regional 1	2.82	1.28
Telkom Regional 2	4.17	1.28
Telkom Regional 3	9.30	1.28
Sub Unit	FTE value	Normal FTE
Telkom Regional 4	6.22	1.28
Telkom Regional 5	5.39	1.28
Telkom Regional 6	3.22	1.28
Telkom Regional 7	4.11	1.28
	43.01	

In table 1 is the result of the overall workload of all units, the results of the workload being uneven in all units, the results of which are almost entirely not the workload units are classified as overload, which means that they work inefficiently because they are too heavy and there is 1 normal unit (Fit), namely in the Telkom unit. Regional 1 and 2. To calculate the workload balance of each unit. Line efficiency which is the ratio of the total working time divided by the cycle times the number of work or the number of work efficiency divided by the number of work.

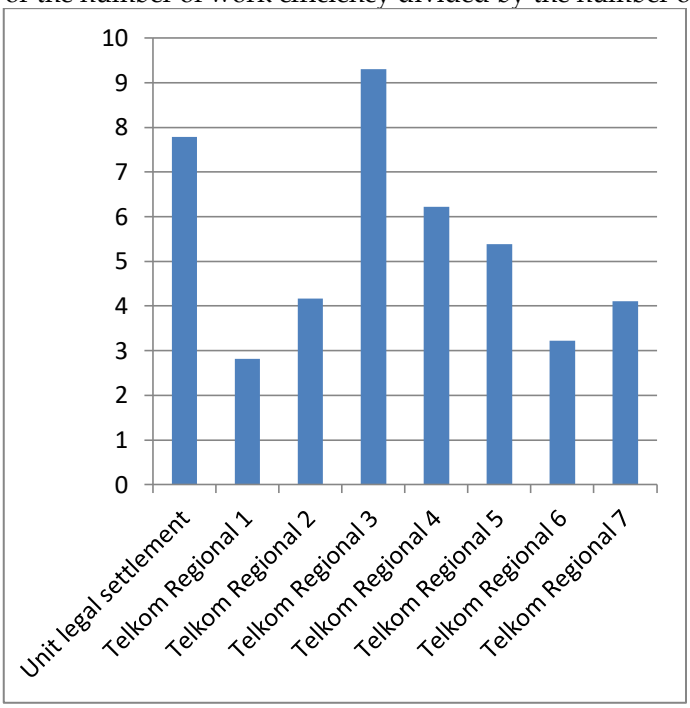

Figure 2. Workload Prefix

In Figure 4.3 the graph of the prefix workload balance in all units and the balance result is 5% which is obtained from the calculation of the total value of FTE / (FTEnormal * number of units).

Proposed Workload Balance Chart

Table 2. FTE Score Results Overall Proposal

Sub Unit	FTE value	proposed workforce	Normal FTE
Legal settlement unit	0.97	8	1.28
Telkom Regional 1	0.94	3	1.28

Sub Unit	FTE value	proposed workforce	Normal FTE
Telkom Regional 2	1.04	4	1.28
Telkom Regional 3	1.03	9	1.28
Telkom Regional 4	1.03	6	1.28
Telkom Regional 5	1.07	5	1.28
Telkom Regional 6	1.07	3	1.28
Telkom Regional 7	1.02	4	1.28
Amount	8.17	42	

In table 2 for the legal settlement unit where there are already 5 employees and 3 additional employees are proposed with a workload of 0.97 for each workforce, for Telkom regional 1 and 2 it is normal with FTE values of 0.94 and 1.04, for Telkom regional 3 where there are already 2 employees and it is highly recommended to add 7 additional employees with a workload of 1.03 for each workforce, Telkom regional 4 already has 2 employees and it is highly recommended to add 4 proposed employees with a workload of 1.03 for each workforce, Telkom Regional 5 there are already 2 employees and it is highly recommended to add 3 proposed employees with a workload of 1.07, Telkom regional 6 only has 1 employee and it is highly recommended to add 2 proposed employees with a workload of 1.07, and for Telkopm regional 7 there are already 2 employees and it is also proposed to add 2 more employees with an FTE value of 1.02.

All proposals are highly expected so that the workload in each unit becomes effective and efficient as well as evenly distributed in work and can get a normal (fit) FTE value.

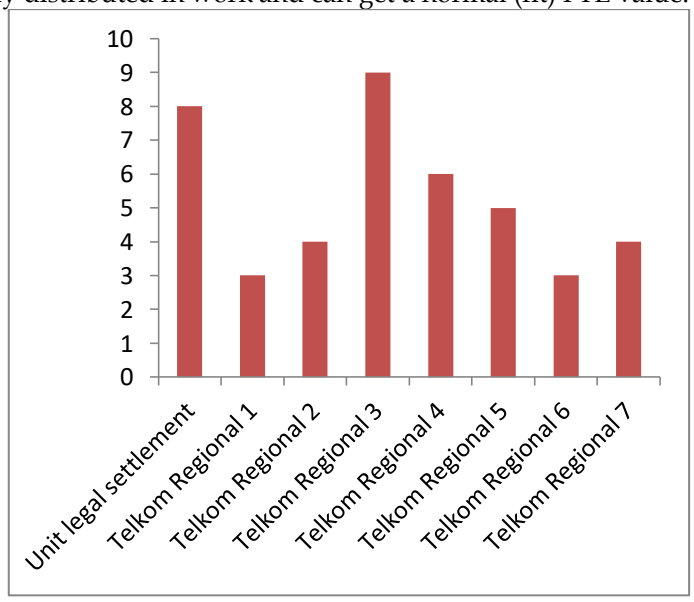

Figure 3. Proposed FTE Balance Chart

In Figure 3 the workload balance graph of all proposals in all units and the balance result is 80% obtained from the calculation of the total value of FTE/ (FTEnormal * Number of units). Based on the calculations, it can be seen that there is an increase in the FTE balance value before and after the proposal. It is known that the FTE value before the proposal was 5% and after the proposal it greatly increased to 80%. This means that there is an increase in the FTE balance value by 75%.

CONCLUSION

Based on the research that has been done on the legal settlement unit and its supporting units, it can be concluded that the workload received by each unit of each job is for the normal category (fit) for Telkom regional 1 and regional Telkom 2, namely for Telkom regional 1 with a total of 3 the workforce the workload is 2.82 and for Telkom regional 2 with a total of 4 workers the workload is 4.14. For other units the workload is classified as underload, for the legal settlement unit there are 5 workers, the workload for the legal settlement unit is 7.78, for Telkom Regional 3 there are 2 workers, the workload for Telkom regional 3 is 9.30, for Telkom regional 4 there are 2 workers. Telkom Regional 4 workload is 6.22, Telkom Regional 5 has 2 workers, Telkom Regional 5 has 5.39, Telkom Regional 6 has 1 workforce, Telkom Regional 6 has 3.22, and Telkom Regional 7 has 2 workloads work is 4.11.

Based on the results of the FTE calculation, it is known that the workload of 8 units is still not balanced. Where there are 6 operators with excessive workload, while only 2 units have a normal workload (fit). After making improvements by balancing the workload of other units that are excessive by adding the proposed workforce. The result is that the total workload on all units can be carried out by 42 workers. And then the workload balance value is greatly increased from the previous 5% to 80%.

ACKNOWLEDGEMENTS

We received financial support for the implementation of this study. We thank the parties of the academic market, professional editors, and colleagues who have actively helped us.

References

Abdullah, H. (2017). Peranan manajemen sumberdaya manusia dalam organisasi. Warta Dharmawangsa, (51).

Achmad, W. (2022). Implementation of the Joint Business Group (KUBE) Program in Poverty Alleviation in Sumedang District. Jurnal Ekonomi, 11(02), 1036-1042.

Ajitia, N., Ghantar, M., & Prasetya, A. (2017). Efektivitas Manpower Planning Dengan Menggunakan Metode Analisis Beban Kerja (Work Load Analysis) Berdasarkan Pendekatan Full TIME Equivalent (Studi Pada Divisi Pengembangan Karir, Organisasi, Dan Kompetensi Di PT. Pupuk Kalimantan Timur Tbk. Bontang, Ka (Doctoral dissertation, Brawijaya University).

Almasri, M. N. (2016). Manajemen Sumber Daya Manusia: Imlementasi Dalam Pendidikan Islam. Kutubkhanah, 19(2), 133-151.

Anisa, H. N., & Prastawa, H. (2019). Analisis beban kerja pegawai dengan metode full time equivalent (FTE)(studi kasus pada PT. PLN (persero) distribusi jateng dan DIY). Industrial Engineering Online Journal, 7(4).

Ardiana, I. D. K. R., Brahmayanti, I. A., & Subaedi, S. (2010). Kompetensi SDM UKM dan pengaruhnya terhadap kinerja UKM di Surabaya. Jurnal manajemen dan Kewirausahaan, 12(1), 42-55.

Dewi, W. C., & Alghofari, A. K. (2020). Analisis Beban Kerja dengan Metode Full Time Equivalent (FTE) untuk Menentukan Kebutuhan Operator Proses Pengemasan Kosmetik PT. XYZ. IENACO (Industrial Engineering National Conference) 8 2020.

Diniaty, D. (2015). Analisis Beban Kerja dengan Menggunakan Metode Work Sampling. Jurnal Teknik Industri: Jurnal Hasil Penelitian dan Karya Ilmiah dalam Bidang Teknik Industri, 1(2), 60-69.

Ellitan, L. (2002). Praktik-praktik pengelolaan sumber daya manusia dan keunggulan kompetitif berkelanjutan. Jurnal manajemen dan Kewirausahaan, 4(2), 65-76.

Hayati, I., & Fitria, S. (2018). Pengaruh Burnout Terhadap Kinerja Karyawan Pada Bmt El-Munawar Medan. Intiqad: Jurnal Agama Dan Pendidikan Islam, 10(1), 50-65.

Hudaningsih, N., & Prayoga, R. (2019). Analisis Kebutuhan Karyawan Dengan Menggunakan Metode Full Time Equivalent (FTE) Pada Departemen Produksi Produksi Pt. Borsya Cipta Communica. Jurnal TAMBORA, 3(2), 98–106.

Hudaningsih, N., Mashabai, I., & Prayoga, R. (2019). Analisa Pengukuran Beban Kerja dengan Metode Stopwatch Time Study dan FTE di UD. Prasetya Rangga. Tekinfo: Jurnal Ilmiah Teknik Industri dan Informasi, 8(1), 50-63.

Mahawati, E., Yuniwati, I., Ferinia, R., Rahayu, P. P., Fani, T., Sari, A. P., ... & Bahri, S. (2021). Analisis Beban Kerja Dan Produktivitas Kerja. Yayasan Kita Menulis.

Pranoto, L. H., & Retnowati. (2021). Analisis Beban Kerja (L. Hardian Pranoto & Retnowati (eds.); 3rd ed., p. 138).

Rachman, T. (2013). Penggunaan metode work sampling untuk menghitung waktu baku dan kapasitas produksi karungan soap chip di PT. SA. Jurnal Inovisi, 9(1), 48-60.

Ramdhan, M. (2021). Metode Penelitian. Cipta Media Nusantara.

Riniwati, H. (2016). Manajemen Sumberdaya Manusia: Aktivitas Utama dan Pengembangan SDM. Universitas Brawijaya Press.

Saputri, P., Hidayati, T., & Lestari, D. (2020). Pengaruh Job Insecurity Terhadap Stres Kerja, Kinerja dan Turnover Intention Karyawan. Jurnal Bisnis Dan Manajemen, 235-259.

Siagian, S. (2018). Manajemen Sumber Daya Manusia (26th ed., p. 377). PT Bumi Aksara.

Sugiyono. (2019). metode penelitian kuantitatif dan kualitatif dan R & D (Bandung (ed.); 2nd ed.). alfabeta.

Suwanto, S., Sunarsi, D., & Achmad, W. (2022). Effect of Transformational Leadership, Servant Leadershi, and Digital Transformation on MSMEs Performance and Work Innovation Capabilities. Central European Management Journal, 30(4), 751-762.

Wirawan, F., & Rahardja, E. (2015). Pengaruh Gaya Kepemimpinan dan Motivasi Kerja Terhadap Kinerja Karyawan (Studi pada PT. Warna Alam Indonesia) (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).