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## WORKLOAD ANALYSIS IN DETERMINING THE NUMBER OF FRONTLINER EMPLOYEES AT BANK X

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### Abstract

*This study aims to analyze the workload of frontliner employees at Bank X and determine the optimal number of employees to enhance operational efficiency. The methods employed include work sampling and full-time equivalent (FTE). The results indicate that productive activities in the frontliner division accounted for 77.80%, non-productive activities 11.59%, and personal activities 10.61%. FTE analysis revealed that 2 employees had normal workloads, while 4 others experienced overload. Based on these findings, additional employees are required to balance workloads, bringing the ideal total workforce to 12 employees. This study provides essential recommendations for optimizing human resource planning at Bank*

*Keywords: Workload, Employee Requirements, Work Sampling, Full-Time Equivalent (FTE).*

### INTRODUCTION

The success of a company in achieving its vision and mission is highly dependent on the quality of its human resources (HR). HR plays a vital role in designing, implementing, and evaluating company programs and strategies. As competition in the business world becomes increasingly fierce, companies are required to work effectively and efficiently and ensure optimal performance from all their employees. One way to achieve optimal performance is to manage employee workloads appropriately. An unbalanced workload, whether too heavy or too light, can cause inefficiencies that lead to decreased company productivity (Hasibuan, 2015; Gibson, Ivancevich, & Donnelly, 2019). Bank X is a financial institution that serves the needs of the community in the Lubuk Pakam area. In its operations, the frontliner division, consisting of tellers and customer service, has an important role as the frontline in serving customers. However, data shows that the overtime ratio in this division is quite high, namely 45.67 hours/person for tellers and 46 hours/person for customer service in a one-month period (August 2024). This high overtime ratio indicates an imbalance in the workload, which has the potential to cause overwork, fatigue, and operational inefficiency.

According to previous research, workload analysis can help companies identify ideal workforce needs to support operations. For example, a study by Rida et al. (2023) found that employee productivity and workload at PT Indofood Medan were uneven, requiring workforce redistribution. Another study by Faraisha & Nurketamanda (2023) on the People Department of PT Agriculture Construction also showed the importance of workload analysis to determine the optimal number of workers. Based on this phenomenon, this study aims to analyze the workload of frontline employees at Bank X using the Work Sampling and Full-Time Equivalent (FTE) methods. This study is expected to provide a clear picture of the ideal employee needs to support bank operations effectively and efficiently.

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This study uses a descriptive-quantitative approach to analyze the workload of frontline employees at Bank X. The methods used include Work Sampling and Full-Time Equivalent (FTE), which allows the evaluation of effective working time and employee needs based on actual workload. The location of this study is Bank X, located in Deli Serdang Regency, North Sumatra. The data used in this study consists of primary data obtained through direct observation of frontline employee activities during bank operating hours and interviews with related parties. While secondary data is obtained from internal company documents, such as overtime reports, work schedules, and employee job descriptions. The research procedure is carried out by observing employee activities to collect data on productive, unproductive, and personal working time. The analysis is carried out using the Work Sampling method to determine the proportion of working time spent on various types of activities, as well as the Full-Time Equivalent (FTE) method to calculate employee needs by comparing the total task completion time to the effective working time available. With this approach, the study is expected to provide appropriate recommendations for balancing the workload in the frontline division of Bank X.

**RESULTS AND DISCUSSION**

The results of this study identify the workload of employees in the frontline division of Bank X, including customer service and tellers. This study aims to determine the need for additional manpower to balance the workload based on Work Sampling and Full-Time Equivalent (FTE) analysis.

**Frontliner Division Overview**

The frontliner division at Bank X consists of two main parts, namely customer service and teller. Based on its main duties, customer service is responsible for customer service related to account opening, customer information management, and handling complaints, while teller is responsible for financial transactions such as deposits, withdrawals, and fund transfers. The number of employees in this division consists of three customer service and three tellers. During the observation period, customer service handled an average of 200 customer interactions per day, including opening new accounts, managing complaints, and handing over ATM cards. On the other hand, tellers handled high-volume financial transactions, with an average of 300 daily transactions, including cash deposits, cash withdrawals, and transfers between accounts.

**Work Sampling Observation Results**

Observations on employee activities were conducted for eight and a half working hours each day with an observation interval of every two minutes. The following are the results of observations on productive, unproductive, and personal activities:

**Table 1. Results of Observations of Frontliner Division Working Hours**

Category	Customer Service (%)	Teller (%)	Average (%)
Productive Activities	77.80	75.33	76.57
Unproductive Activities	11.59	12.50	12.05
Personal Activities	10.61	12.17	11.39

From these results, productive activities dominate employee working time with an average of 76.57%, although there is still time allocated for unproductive and personal activities. This is in accordance with the work efficiency standards according to Law No. 13 of 2003, which recommends productive working time of 70%. Unproductive activities in this division include informal discussions between employees and the use of time for repetitive administrative activities, while personal activities include lunch breaks and other personal needs.



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## Determining Employee Needs

To determine the need for additional employees, a task-by-job approach is used. Total task time is divided by effective working time per employee. Based on the calculation results, the frontline division needs an additional one customer service and five tellers to optimize operations. The addition of employees to the teller division is more urgent because of the high ratio of workload to their effective working capacity.

### 1. Setting Working Hours

Based on Law No. 13 of 2003 concerning Manpower, effective working hours can be interpreted as official working hours minus lost working time due to not working (allowance) outside of work such as going to the toilet, taking a break, praying, and taking a lunch break. The average allowance is around 15% of formal working hours.

$$\begin{aligned} \text{One working day} &= 8.5 \text{ working hours} - 1 \text{ hour (break)} \\ &= 7.5 \text{ hours} \end{aligned}$$

$$\text{Effective time in one day} = 85\% \times 7.5 \text{ hours} = 6.4 \text{ hours}$$

$$\begin{aligned} \text{Productive time in one year} &= 279 \text{ days} \times 6.4 \text{ hours} \\ &= 1,785.6 \text{ hours} \approx 1,785 \text{ hours or} \\ &107.136 \text{ minute} \end{aligned}$$

### 2. Arranging Task Completion Time

In determining the total workload or output (BT) of all work units, a sample of workload is used which is calculated for a year and the average capability standard for completing work (SKR) in completing work in a unit of time. Task completion time (WPT) is measured in years.

Based on the results of the analysis calculations, it was found that the need for employees for customer service and tellers was 11.74 employees or rounded up to 12 employees, where the largest addition was in the teller section which is the busiest section and serves more customers compared to the customer service section.

### 3. Calculation of Number of Employees Needed

$$\text{Kebutuhan Karyawan} = \frac{\sum WPT}{\sum WKE} \times 1 \text{ orang}$$

**Table 2 Number of Employees Needed**

No.	Field	Employee Needs	Rounding
1.	Frontliner	11.74	12
<b>Total</b>			<b>12</b>

Based on the calculations in the table above, it was found that the needs of the frontliner division of Bank X for customer service are 3.85 employees or rounded up to 4 employees and tellers are 7.89 employees or rounded up to 8 employees. At this time, for customer service and tellers there are only 3 employees each, which means that additional employees are needed for customer service of 1 employee and 5 tellers.

## Full-Time Equivalent (FTE) Calculation

The FTE method is used to calculate employee needs based on effective working time and task completion time. The calculation is done by comparing the total task time with effective working time.

**Table 3. Results of Frontliner Division FTE Calculation**

Employee	Task Completion Time (hours/year)	Effective Working Time (hours/year)	FTE	Information
Customer Service 1	1,992.83	1,785	1.12	Normal
Customer	2,743.28	1,785	1.54	Overload

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Service 2				
Customer Service 3	2,134.17	1,785	1.19	Normal
Teller 1	4,714.27	1,785	2.64	Overload
Teller 2	4,621.37	1,785	2.59	Overload
Teller 3	4,757.20	1,785	2.67	Overload

The analysis results show that customer service 2 and all tellers are overloaded, indicating the need for additional employees. The average FTE for tellers reached 2.63, indicating that the workload was almost three times the normal capacity.

**Comparison of Employee Needs to Actual Conditions**

Based on the results of the discussion in the previous section, it can be concluded that the number of employees in the frontline division in actual conditions is not enough so that overload occurs. The following is an explanation in the table below

**Table 4. Number of Employees Needed and Actual Number of Employees**

No.	Field	Employee Needs	Actual Number of Employees	The Gap	Information
1.	Frontliner	12	6	-6	Not enough
	<b>Total</b>	<b>12</b>	<b>6</b>	<b>-6</b>	<b>Not enough</b>

Based on the information in the table above, it was found that the actual number of employees in the frontliner division is 6 employees. Meanwhile, with the workload, 12 employees are needed for the division so that Bank X can add 6 more employees to make the workload in the division normal.

**CONCLUSION**

Based on the findings of this study, it can be concluded that first, the calculation of employee working hours is done by calculating effective working days and working hours carried out by employees. From this calculation, it is known that there are 279 effective working days and a total of 1785 effective working hours. The working days calculated effectively are from Monday to Friday, with effective working hours starting at 08.00 WIB to 16.30 WIB. Second, to measure the use of time, the work sampling method was used which resulted in the finding that productive activities in the frontliner division were recorded at 77.80%, while activities that were classified as unproductive reached 11.59%, and personal activities contributed 10.61% of the total time used.

Third, the analysis of the number of employees needed using the FTE (Full-Time Equivalent) method shows that the frontliner division needs around 11.74 employees, rounded up to 12 employees, to ensure operations run effectively and efficiently according to needs. However, this is certainly not popular for companies where if additional employees are added it will take a long time for the recruitment and training process and will also increase the company's operational costs so that Bank X can allocate a more even workload by involving several employees in the back office to reduce the workload in the customer service and teller sections. Furthermore, Bank X can also maximize the Mobile Banking application to reduce the workload of frontline employees. Thus, the results of this study provide a clear picture of the allocation of working time, productivity levels, and the number of employees needed in the frontline division.



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## REFERENCES

- Auliyufliha, F., & dkk. (2019). *Metode Work Sampling untuk Analisis Beban Kerja*. Jurnal Teknik Industri.
- Budiasa, I. (2021). *Pengelolaan Beban Kerja dalam Organisasi*. Jakarta: Erlangga.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (2019). *Organizations: Behavior, Structure, Processes*. New York: McGraw-Hill.
- Hasibuan, M. S. (2019). *Manajemen Sumberdaya Manusia*. Jakarta: PT Bumi Aksara.
- Mahawati, P., & dkk. (2021). *Full-Time Equivalent Analysis on Workforce Planning*. Human Resource Journal.
- Rida, R., & dkk. (2023). Analisis Beban Kerja dan Jumlah Pekerja di Bagian Gudang Spare Part Pada PT. Indofood Medan. *Jurnal Manajemen Rekayasa dan Inovasi Bisnis Vol. 2 No. 1*, 81-90.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Wignjosoebroto, S. (2015). *Pengukuran Beban Kerja dan Analisis Produktivitas*. Surabaya: Guna Widya.