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# UNRAVELING THE MENTAL WORKLOAD OF EMPLOYEES: A CONTEMPORARY APPROACH IN PT WOM FINANCE CAB PAREPARE

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#### **ABSTRACT**

A company's success depends on effective resource management, particularly human resources. Utilizing high-quality employees is crucial for achieving goals, optimizing efficiency, and enhancing performance. However, workloads often cause stress and fatigue, impacting accuracy and job satisfaction. Therefore, measuring mental workload is important, using techniques like the Subjective Workload Assessment Technique (SWAT) to understand employee workload and improve performance. This study focuses on PT. Wom Finance, a vehicle financing company, and its efforts to address workload challenges using SWAT to measure and enhance employee satisfaction. The research reveals that effort (35.78%), stress load (34.29%), and time load (29.94%) are significant factors in the overall workload. Further research is recommended to deepen understanding and develop strategies for reducing workload. By effectively managing employees' mental workload, PT WOM Finance Cab Parepare can create a work environment that promotes satisfaction and well-being, leading to increased productivity and organizational success.

Keywords: Effort, Mental workload, Stress, Subjective Workload Assessment Technique (SWAT), Time.

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# 1. INTRODUCTION

A company thrives when resources are effectively managed, including human resources. They are a key factor in success, distinct from natural resources (Ahmed et al., 2020). Utilizing human resources is vital for accomplishing tasks and playing a strategic role. With high-quality human resources, goals can be achieved, making them crucial for efficiency and performance. Human resources provide services that cannot be stored and are essential for a company's growth (Stević and Brković, 2020). Performance, in terms of quality and quantity, stems from fulfilling responsibilities. Human resources are the determining factor in an organization's success, driving success and enhancing performance in specific areas (Margherita, 2022).

The quality of work is determined by the accuracy of the employees. However, human resources have both strengths and weaknesses. One of their weaknesses is their vulnerability to stress and fatigue, often caused by their workload (Masi et al., 2023). Each worker has different job responsibilities, resulting in varying workloads. Job stress refers to the feeling of pressure experienced by employees, influenced by individual responses and psychology (Alfiah Aras, Safutra and Pawennari, 2023). From an ergonomic perspective, workloads should align with workers' physical and cognitive abilities and limitations (Nino, Claudio and Monfort, 2023). A broader perspective on someone's job can reveal discrepancies between their received compensation and what they should rightfully be

The workload includes skilled tasks with deadlines, requiring physical and mental effort. It affects performance and productivity, putting pressure on employees and causing discomfort (Ahmad et al., 2023). Situational factors such as physical demands and psychological environments distress employees. Workload is crucial for a company's success as it influences motivation and performance (Tortia et al., 2022). performance leads to employee dissatisfaction, which limits their potential and hinders career growth. Job satisfaction is also affected by work-related stress.

Measuring mental workload is crucial for companies to understand employee burden

(Suwarto, Padhil and Sulawesi Selatan, 2019). An excessive workload impairs performance and causes stress (Paramita and Suwandana, 2022). Over-demanding conditions lead to workplace accidents with physical and material losses. Mental load relates to employees' psychological strain. Job-related stress significantly affects performance globally (Zanabazar and Jigjiddorj, 2022). Excessive workload and a poor physical environment cause work stress. Reducing workload and improving the work environment alleviate stress. Ignoring short-term job stress harms employees (Schoger, 2023).

PT. Wom Finance is a vehicle financing company with 167 branches in Indonesia, part of PT Bank Maybank Indonesia Tbk. It strives to provide excellent customer service, compete, and deliver quality products. The company has service, sales/marketing, and collection processes. The Collection & Remedial division ensures timely payments, safeguards assets and negotiates solutions. Meeting payment deadlines is a crucial performance indicator. Mental workload is influenced by job type, work situations, response time, completion time, and individual factors like motivation, skills, fatigue, job satisfaction, and performance tolerance (Malik *et al.*, 2021).

Previous research has focused on addressing workload issues using methods such as the Subjective Workload Assessment Technique (SWAT) and other approaches (La Bara et al., 2021). Studies have examined the impact of workload on employee performance, utilizing SWAT to measure mental workload levels as low, moderate, or high (Febrian, Aulia Imran and Syahrullah, 2021). Additionally, alternative methods have been explored to better understand and mitigate the effects of workload on employee well-being and productivity (Lapai, Lahay and Rauf, 2020).

To address workload challenges, companies need to proactively assess employee workload levels. The Subjective Workload Assessment Technique (SWAT) categorizes mental workload into low, moderate, and high levels using formal measurement theories like the conioint measurement theory. SWAT evaluates time load, mental effort load, and psychological stress load (Pratiwi, Pawennari and Afiah, 2022). Implementing SWAT helps companies identify workload areas needing attention, optimize performance, enhance job satisfaction, and mitigate the negative impact of excessive workload on employee well-being.

### 2. METHODS

This study utilized the Subjective Workload Assessment Technique (SWAT), originally developed by Gary Reid from Armstrong Laboratory in Ohio, USA, to assess the physical and mental workload experienced by individuals. SWAT methodically identified three factors associated with mental workload: time load, effort load, and psychological stress load. This method employed a simple and direct subjective assessment to quantify the workload of workers' activities. The SWAT approach depicted the work system as a multidimensional model, categorizing each factor into low, moderate, and high levels. The implementation of SWAT involved two stages: scale development and event scoring. During scale development, participants were requested to rank 27 cards representing various workload combinations based on their perception of workload levels.

The event scoring phase entailed evaluating activities or events using a rating system of low, moderate, and high (ranging from 1 to 3) for each of the three dimensions: time load (T), mental effort load (E), and psychological stress load (S). Scale development aimed to train individuals to accurately perceive their workload, while event scoring involved comparing participants' SWAT ratings for each variable (T, E, and S) with the card ranking results obtained from the SWAT program on a computer, thereby determining the workload score for each combination. The workload intervals were defined as follows: low mental workload (0-40), moderate mental workload (41-60), and high mental workload (61-100) as parameters of success for each dimension.

### 3. FINDINGS AND DISCUSSION

# 3.1. Results of the sorting of SWAT cards

Based on the collected data from the distribution of SWAT cards among employees working in the company, with a focus on employees who have a significant influence on mental workload within the organization, the scoring results are presented in Table 1 and Table 2 below.

Table 1. SWAT card sorting

No -	111	112	113	121	122	123	131	132	133	211	212	213	221	222
	N	В	W	F	J	С	χ	S	М	U	G	Z	٧	Q
1	1	8	18	6	12	24	17	21	26	11	7	16	10	14
2	1	9	11	2	10	17	14	22	4	21	8	5	12	6
3	1	3	8	2	5	12	7	11	17	4	9	13	6	14
4	1	10	18	6	2	4	17	11	26	3	7	15	13	16
5	1	3	9	2	5	12	8	11	18	4	6	14	7	17
6	1	3	5	2	6	12	7	11	20	4	9	14	8	15
7	1	4	9	3	5	16	10	13	22	2	6	17	8	7
8	1	4	9	2	10	11	8	13	18	5	3	12	7	6
9	1	8	18	3	12	15	7	11	16	4	5	13	10	14

Table 2. SWAT card sorting (continued)

No	223	231	232	233	311	312	313	321	322	323	331	332	333
INO	22	K	E	R	Н	Р	D	γ	Α	0	L	T	1
1	19	4	15	23	5	2	25	9	13	22	3	20	27
2	20	16	24	18	23	13	3	7	15	26	19	25	27
3	16	15	22	23	10	19	21	18	24	26	20	25	27
4	19	21	24	23	14	9	5	12	8	22	20	25	27
5	21	13	19	23	10	16	25	15	22	26	20	24	27
6	19	13	18	21	10	16	24	17	25	26	22	23	27
7	19	12	20	25	11	14	23	15	18	26	21	24	27
8	19	14	22	26	15	20	21	16	23	25	17	24	27
9	17	21	24	23	2	19	22	9	25	26	6	20	27

Based on the scoring results obtained from the sorting of the 27 SWAT cards in Tables 1 and 2 above, it can be observed that the lowest values for each employee's selection are attributed to card N with the code 111, while the highest values for card selection are associated with letter I with the code 333. These findings indicate that individuals' choices vary in terms of the workload they experience while working for the company.

Based on the discussions and literature review regarding the perceived mental workload among employees, the indicators identified in this study are as follows: the influence of weekly targets set by the company, pressure from team leaders, inter-worker communication, delivery of service points to customers, monthly closing targets and tracking of goods, and additional tasks.

# 3.2. Results of determining the values on the SWAT scale

In determining the scale values for the 27 SWAT cards filled out by the employees in the

company, the data from the card sorting in the previous step was used, and calculations were performed with the assistance of the DOSBox 0.74 application to facilitate the determination of the final values. The final results of the 27 SWAT scale values obtained using the DOSBox 0.74 application are presented in Table 3 below.

Table 3. Final Values of the SWAT Scale

	Workload Combination										
No	Card	Time	Effort	Stress	Rescaled						
		(T)	(E),	(S)							
1	N	1	1	1	0						
2	В	1	1	2	17.6						
3 4	W	1	1	3	34.3						
	F	1	2		17.7						
5	J	1	2	2	35.4						
6	C	1	2	3	52						
7	X	1	3	1	35.8						
8	S	1	2 2 3 3 3	2	53.4						
9	M	1	3	3	70.1						
10	U	2		1	15						
11	G	2	1	2	32.7						
12	Z	2	1	3	49.3						
13	V	2 2	2	1	32.8						
14	Q	2		2	50.4						
15	ZZ	2	2 2 3 3 3	3	67.1						
16	K	2	3	1	50.8						
17	Е	2	3	2	68.5						
18	R	2	3	3	85.1						
19	Н	3	1	1	29.9						
20	P	3	1	2	47.6						
21	D	3	1		64.2						
22	Y	3	2	3	47.7						
23	A	3	2	2	5.3						
24	О	3	2	3	82						
25	L	3	3	1	65.7						
26	Т	2 2 2 2 2 3 3 3 3 3 3 3 3	2 2 3 3	2	83.4						
27	I	3	3	3	100						

Based on the results of the SWAT scale assessment in Table 3 above, it can be observed that when a consistent evaluation is applied to the selection of strategy cards, choosing strategy 111 would result in a scale value of 0, whereas selecting strategy card 333 would yield a score of 100. The choices made by employees in the company are adjusted based on their individual circumstances and preferences.

# 3.3. The results of the employees' event scoring

The next step was using the scaling solution table to alter the workload combination values once the respondents finished the event scoring questionnaire; this will be covered in more detail in the data processing section. The subject's performance is deemed ideal if the conversion value between the SWAT scale and the SWAT rating is less than 40. However, the subject's performance is regarded as moderately burdened if the SWAT scale rating is between 41 and 60. A significant workload burden is indicated by a SWAT scale rating of 61 to 100 for the subject. The event scores that the respondents submitted are shown in the following table.

Table 4. Results of assigning weight to event scoring for Employee 1

Mental	_	WA]	_	SWAT	Workload
Workload	T	Е	S	Rescale	Categories
Influence of weekly targets set by the company	3	3	2	83.4	High
Pressure from team leaders	2	2	3	32.8	Low
Inter-worker communication	1	1	1	0	Low
Delivery of Service Points to customers	2	3	1	50.8	Moderate
Monthly closing targets and tracking of goods	2	3	3	85.1	High
Additional tasks	1	1	1	0	Low

Based on the weighting results for Employee 1 in Table 4 above, it can be observed that there are three indicators categorized as low, two indicators categorized as high, and one indicator categorized as moderate.

Table 5. Results of assigning weight to event scoring for Employee 2

scoring for Employee 2										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	2	2	1	32.8	Low					
Pressure from team leaders	2	2	2	50.4	Moderate					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	2	2	1	32.8	Low					
Monthly closing targets and tracking of goods	1	3	3	70.1	High					
Additional tasks	1	1	1	0	Low					

Based on the weighting results for Employee 2 in Table 5 above, it can be observed that there are four indicators categorized as low, one indicator categorized as high, and one indicator categorized as moderate.

Table 6. Results of assigning weight to event scoring for Employee 3

scoring for Employee 3										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	3	3	3	100	High					
Pressure from team leaders	2	2	2	50.4	Moderate					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	3	3	2	83.4	High					
Monthly closing targets and tracking of goods	1	2	3	52	Moderate					
Additional tasks	1	1	1	0	Low					

Based on the weighting results for Employee 3 in Table 6 above, it can be observed that there are two indicators categorized as low, two indicators categorized as moderate, and two indicators categorized as high.

Table 7. Results of assigning weight to event scoring for Employee 4

scoring for Employee 4										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	2	2	2	50.4	Moderate					
Pressure from team leaders	1	2	2	35.4	Low					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	3	2	2	65.3	High					
Monthly closing targets and tracking of goods	1	3	2	53.4	Moderate					
Additional tasks	1	1	1	0	Low					

Based on the weighting results for Employee 4 in Table 7 above, it can be observed that there are three indicators categorized as low, two

indicators categorized as moderate, and one indicator categorized as high.

Table 8. Results of assigning weight to event scoring for Employee 5

scoring for Employee 3										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	3	2	2	65.3	High					
Pressure from team leaders	2	2	2	50.4	Moderate					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	3	3	2	83.4	High					
Monthly closing targets and tracking of goods	3	3	3	100	High					
Additional tasks	1	1	1	0	Low					

Based on the weighting results for Employee 5 in Table 8 above, it can be observed that there are two indicators categorized as low, one indicator categorized as moderate, and three indicators categorized as high.

Table 9. Results of assigning weight to event scoring for Employee 6

scoring for Employee 6										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	3	3	3	100	High					
Pressure from team leaders	2	2	3	67.1	Moderate					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	3	3	2	83.4	High					
Monthly closing targets and tracking of goods	2	3	3	85.1	High					
Additional tasks	1	1	1	0	Low					

Based on the weighting results for Employee 6 in Table 9 above, it can be observed that there are two indicators categorized as low, one indicator categorized as moderate, and three indicators categorized as high.

Table 10. Results of assigning weight to event scoring for Employee 7

Mental		WA'		SWAT	Workload
Workload	T	Е	S	Rescale	Categories
Influence of					
weekly targets	2	2	2	50.4	Moderate
set by the	_	_	_	50.1	Moderate
company					
Pressure from	2	2	1	32.8	Low
team leaders		_	•	32.0	Eo II
Inter-worker	1	1	1	0	Low
communication	1	1	1	O	Low
Delivery of					
Service Points	2	2	1	32.8	Low
to customers					
Monthly					
closing targets	2	3	3	85.1	High
and tracking of		3	3	65.1	riigii
goods					
Additional	1	1	1	0	Low
tasks	1	1	1	U	LOW

Based on the weighting results for Employee 7 in Table 10 above, it can be observed that there are four indicators categorized as low, one indicator categorized as moderate, and one indicator categorized as high.

Table 11. Results of assigning weight to event scoring for Employee 8

Mental		WA'		SWAT	Workload
Workload	T	Е	S	Rescale	Categories
Influence of weekly targets set by the company	2	2	1	32.8	Low
Pressure from team leaders	2	2	2	50.4	Moderate
Inter-worker communication	1	1	1	0	Low
Delivery of Service Points to customers	3	3	1	83.4	High
Monthly closing targets and tracking of goods	2	3	2	68.5	High
Additional tasks	1	1	1	0	Low

Based on the weighting results for Employee 8 in Table 11 above, it can be observed that there are three indicators categorized as low, one indicator categorized as moderate, and two indicators categorized as high.

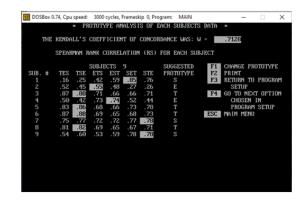
Table 12. Results of assigning weight to event scoring for Employee 9

scoring for Employee >										
Mental	S	WA7	Γ	SWAT	Workload					
Workload	T	Е	S	Rescale	Categories					
Influence of weekly targets set by the company	2	2	1	32.8	Low					
Pressure from team leaders	2	2	3	67.1	High					
Inter-worker communication	1	1	1	0	Low					
Delivery of Service Points to customers	2	2	1	32.8	Low					
Monthly closing targets and tracking of goods	1	3	2	53.4	Moderate					
Additional tasks	2	2	2	50.4	Moderate					

Based on the weighting results for Employee 9 in Table 12 above, it can be observed that there are three indicators categorized as low, two indicators categorized as moderate, and one indicator categorized as high.

# 3.4. The results of a prototype measurement

The calculated results of the prototype for all employees who participated as respondents in the study can be observed in Figure 1 below.



Based on the determination of the prototype by combining the workload from three variables, namely Time, Effort, and Stress, using the DOSBox 0.74 application, it can be observed that the percentage of workload that has the most influence on employees' activities is as follows:

Time Dimension = 29.94% Effort Dimension = 35.78% Stress Dimension = 34.29%

### 3.4. Discussion using the SWAT method

Based on the calculations conducted through scoring, evaluation of weight results, and determination of the prototype by comparing all indicators across the three workload variables in the company, the research results indicate that the Effort dimension contributes significantly to the workload. The Stress dimension factor also has a considerable impact on the workload. On the other hand, the Time dimension factor has the least influence on the workload.

A low mental workload does not necessarily guarantee the absence of errors in job performance. This is because when employees perceive a lower workload, they may become easily bored. Consequently, this boredom can lead to employees being less attentive to their job descriptions as they become accustomed to their tasks. In the billing process, there are instances where certain targets are not achieved due to a lack of sufficient staff members to carry out the work. Additionally, the vast coverage area and considerable travel distances for bill collection contribute to employee stress and a shortage of work time. Measuring the distance traveled and the number of customer accounts is essential to determining the required number of employees and the duration of work necessary to achieve job targets at a normal work pace and under favorable physical and mental conditions.

The findings of the study above lead to the conclusion that the perceived workload by employees is primarily the mental workload or effort load. After analyzing the processed data, the author proposes the following improvements:

a. Proposal for Boosting Work Enthusiasm: In this study, some employees showed a lack of motivation initially, appearing happy but later experiencing a decline in enthusiasm and energy when starting their tasks. The company can implement programs such as rewards and training to enhance employee motivation (Kang, Hsiao and Ni, 2022). Monthly rewards can significantly uplift work enthusiasm, while training sessions can improve employees' skills and knowledge, ensuring they are well-equipped to achieve targets.

- b. Territory Allocation System for Billing Areas: It is crucial to consider travel distance and the number of accounts handled when dividing territories. This ensures that employees can visit all customers effectively (Sheth, Jain and Ambika, 2020).
- c. Increase in Workforce: Adding more employees is essential to reducing the perceived workload for employees. This can be achieved by recruiting new staff or reallocating some employees from different departments (Hongal and Kinange, 2020). For example, administrative staff can provide full phone support, while marketing personnel can also engage in bill collection from younger installment customers. However, it should be noted that recruiting new employees may incur additional costs for the company.

### 4. CONCLUSION AND SUGGESTION

The results and discussion using the Subjective Workload Assessment Technique (SWAT) method in the Collection and Remedial division involving 9 employees revealed that the Effort dimension had a significant influence of 35.78%, followed by Stress at 34.29%, and Time at 29.94%. Factors such as work enthusiasm, territory allocation for billing areas, and the number of employees were found to have a significant impact on workload. To address low mental workload, it is crucial to enhance employee motivation through reward programs and training sessions. Monthly rewards serve as effective incentives, while training improves employees' skills and knowledge. Territory allocation should consider travel distance and the number of customer accounts to ensure effective assignments and customer visits. Increasing the workforce is also important in reducing workload. Recruitment or employee reallocation from other departments can be considered, with careful consideration of potential additional costs. conclusion, addressing enthusiasm, optimizing territory allocation, and increasing the workforce are vital steps to alleviate workload, enhance work effectiveness, and boost employee satisfaction. Further research recommended is deepen understanding and develop strategies workload reduction. By effectively managing employees' mental workload, PT WOM Finance Cab Parepare can foster a work environment that promotes satisfaction and well-being, ultimately leading to increased productivity and organizational success.

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