Restructuring Job Design Using Job Analysis to Balance Workload and Enhance Productivity

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Abstract. One logistics company in Indonesia has experienced a drastic increase of 60% in the demand for imported goods from 2018 to 2022. This upward trend is expected to continue. The admin staff, leader, and supervisor of the Export-Import Department feel the direct impact and are experiencing a higher workload leading to a growing number of outstanding billings to clients. Efforts to address the outstanding billing have been made by utilizing overtime, but this approach has proven ineffective when outstanding billing does not significantly decrease. To address this issue, productivity analysis using work sampling is necessary to determine if the workload is being utilized effectively. Additionally, workload analysis using Workload Analysis should be conducted to understand the magnitude and categories of workload experienced by the admin staff, leader, and supervisor. This research shows that the supervisor has a normal workload with productivity that can still be increased by approximately 3%. Field admin staff has an underload workload with productivity that can still be increased by approximately 5.3%. The leader and billing admin staff have an overload workload with optimal productivity. Based on the results of the two methods, the number of workers in each job role is currently optimal, namely 1. To reduce the workload of the leader and billing admin staff, a job design restructuring recommendation is needed to implement by transferring monitor PIC Field activity from leader to supervisor and updating tracking shipment activity from billing admin staff to field admin staff.

Keywords: Work Sampling, Workload Analysis, Job Analysis.

1 Introduction

The rise in both imports and exports in Indonesia has a significant impact on the country's economic growth and foreign exchange, leading entrepreneurs in Indonesia to actively pursue business opportunities in the logistics and transportation sector (Central Logistics Agency, 2023). In this context, logistics companies play a crucial role as providers of export and import delivery services, especially in remote regions of Indonesia. To efficiently operate such companies, rely on various departments, one of which is the Export-Import Department (Exim), acting as the frontline for logistics services. The

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success of the company largely depends on the productivity and skills of the staff working in this department. However, the employees are facing an increasing workload year after year, primarily due to the growing demand for imported goods. This situation can affect their work productivity [1].

Fig. 1. Graph of Total Requests for Imported Goods at Logistics Company, 2018-2022

In 2022, there will be a significant surge of approximately 60% compared to 2018 (see Fig. 1). This notable increase in workload, coupled with the rising number of import requests, has led to a corresponding rise in outstanding billing to clients.

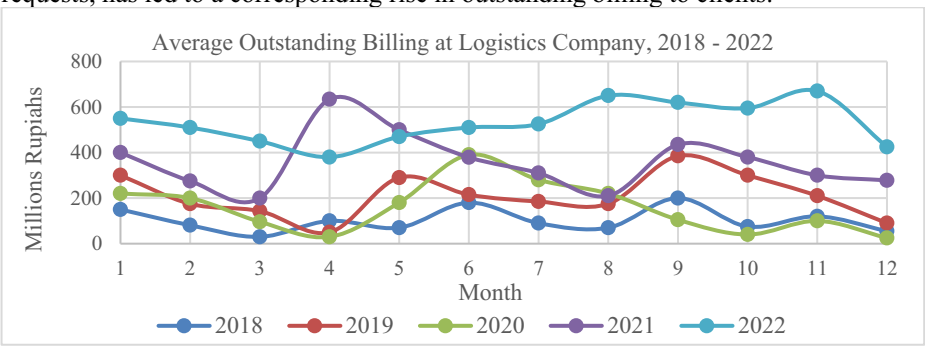

Fig. 2. Graph of Average Outstanding Billing at Logistics Company, 2018-2022

The issue of outstanding billing, which was a recurring monthly occurrence, could still be effectively managed by utilizing overtime opportunities provided by the company management. Each time there was an increase in outstanding billing, it was balanced by a decrease due to the extra work hours put in by the employees. However, in 2022, despite the workers putting in overtime, outstanding billing did not show a significant reduction (see Fig. 2). This might be attributed to the adjusted overtime limit in compliance with Labor Law No. 13 of 2003 concerning Manpower, which permits a maximum of 3 hours of overtime per day and 16 hours per week.

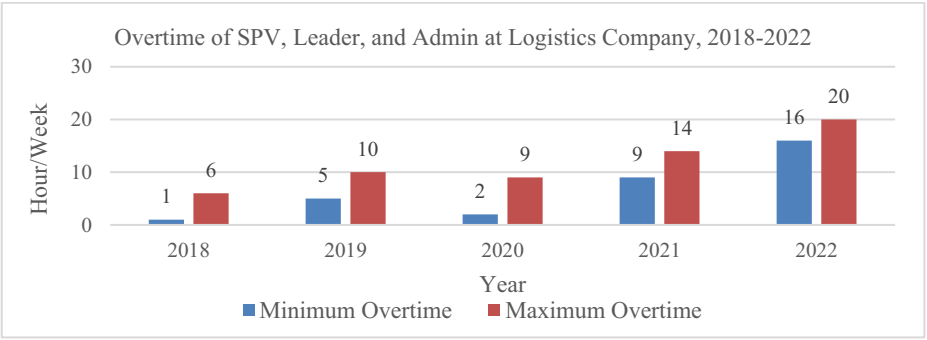

Fig. 3. Graph of Overtime for SPV, Leader, and Admins at Logistics Company, 2018-2022

Between 2018 and 2021, workers' overtime hours remained within the limits set by the Labor Law, and as mentioned earlier, this allowed the resolution of outstanding billing monthly. However, in 2022, to reduce the outstanding billing further, workers exceeded the overtime limits specified by the Labor Law. Despite these efforts, it can be concluded that in 2022, relying on overtime will no longer be effective in handling the substantial number of outstanding bills, which corresponds to the increasing volume of import requests (see Fig. 3).

Working overtime can result in reduced productivity as employees experience fatigue more rapidly, leading to diminished focus at work and an increased likelihood of falling sick. Consequently, errors in writing customer names on invoices have occurred several times. Adding to the challenge is the limited number of employees available, with only one staff occupying each role, such as supervisor, leader, field admin, billing admin, and expeditor admin. According to Junaidi's research [2], the productivity achieved during overtime hours is only about half of the productivity achieved during regular working hours.

Considering the above background, it is essential to evaluate by analyzing the workload of the individuals involved to ascertain if there are any imbalances in their tasks. The method of workload analysis proves useful in gauging the workload magnitude and considering the performance ratings of the respondents [3]. In addition, Inegbedion [4] emphasizes the importance of ensuring a person's workload is well-balanced with their abilities and knowledge, thereby rendering it a more effective approach to implement.

To analyze the workload effectively, conducting a productivity analysis using work sampling is necessary for billing admin staff, field admin staff, expeditor admin staff, leader, and supervisor. This analysis serves as input for workload evaluation and helps determine if the workload is being utilized for productive or non-productive tasks. This approach considers the non-repetitive nature of work activities, unclear cycles, no need for an expert observer, and minimal disruption to respondents during observations, making it a highly effective method to employ [5]. Additionally, job analysis was carried out in this study to address any signs of an imbalanced workload.

2 Literature Review

2.1 Workload Analysis

This approach is tailored to the job descriptions provided to employees, aiming to assess whether the given job descriptions are adequate, overly burdensome, or too light [3]. According to the Regulation of the Minister of Administrative Reform and Bureaucratic Reform of the Republic of Indonesia Number 1 of 2020, which outlines the Guidelines for Workload Analysis, Workload Analysis is a systematic management technique used to gather information about an organization's work effectiveness and efficiency based on work volume. Employing this method enables a company to make decisions regarding workforce allocation or size and to identify the abilities and skills of its employees [8]. Below is a workload analysis calculation based on worker productivity [3].

$$WLA = (\%P \times PR) \times (1 + Allowance) \quad (1)$$

%P = Average percentage of productive activities from work sampling results
PR = Performance Rating

Performance rating using Westinghouse consists of skills, effort, working conditions, and consistency factors (see Table. 1).

Table 1. Performance Rating using Westinghouse

Skill			Effort			Condition			Consistency		
+0.15	A1	Super skill	+0.13	A1	Excessive	+0.06	A	Ideal	+0.04	A	Ideal
+0.13	A2		+0.12	A2		+0.04	B	Excellent	+0.03	B	Excellent
+0.11	B1	Excellent	+0.10	B1	Excellent	+0.02	C	Good	+0.01	C	Good
+0.08	B2		+0.08	B2		0.00	D	Average	0.00	D	Average
+0.06	C1	Good	+0.05	C1	Good	-0.03	E	Fair	-0.02	E	Fair
+0.03	C2		+0.02	C2		-0.07	F	Poor	-0.04	F	Poor
0.00	D	Average	0.00	D	Average						
-0.05	E1		-0.04	E1							
-0.10	E2	Fair	-0.08	E2	Fair						
-0.16	F1		-0.12	F1							
-0.22	F2	Poor	-0.17	F2	Poor						

Source: Kiras, Toklu, and Adali (2021)

Allowance refers to extra time intentionally provided to workers to accommodate their basic human needs (see Table. 2).

Table 2. Allowances based on ILO Standards

Allowance	Men (%)	Women (%)
Personal Needs	5	7
Basic Fatigue	4	4
Light Conditions		
Slightly Below Recommended	0	0
Well Below	2	2
Quite Inadequate	5	5
Air Conditions		
Well Ventilated	0	0
Badly Ventilated	5	5
Work Close to the Furnace	5	15
Visual Strain		
Fairly Fine Work	0	0
Fine	2	2
Very Fine	5	5
Aural Strain		
Continuous	0	0
Intermittent, Loud	2	2
Intermittent, Very Loud	5	5
High-Pitched, Loud	5	5
Mental Strain		
Fairly Complex Process	1	1
Complex	4	4
Very Complex	8	8
Monotony: Mental		
Low	0	0
Medium	1	1
High	4	4
Monotony: Physical		
Rather Tedious	0	0
Tedious	2	1
Very Tedious	5	2

Source: Hanjani and Singgih (2019)

Table 3. An Example of Workload Calculation

Workload Calculation of Operator				
%Productive	%Performance Rating (PR)	%Allowance	Calculation	Category
98% = 0.98	1.35	24% = 0.24	(0.98 x1.35) (1+0.24) = 1.64	*Overload*

%allowance and %performance rating set by an expert or in this research a manager (see Table. 3). The results of the workload calculation will be converted into the workload classification category according to Setiawan [3] as follows:

1. WLA < 1.0, underload (workload is still lacking)
2. WLA = 1.0 to 1.3, normal (workload is still sufficient or appropriate)
3. WLA > 1.3, overload (workload is too large)

2.2 Workload Analysis

Work sampling is a technique used to measure direct work time, particularly for tasks that are performed on unpredictable days or frequently mixed with other activities. This method involves observing several individuals through discrete and random observations, without the need for lengthy observation periods, making it more efficient and cost-effective. Based on the principles of probability, observations using this method do not have to be restricted to regular work hours but can be conducted occasionally during work hours at random or varying intervals.

To apply the work sampling method, it is essential to adhere to the following principles [3]:

1. The minimum number of observations should be 384 to ensure a more accurate representation of reality. Increasing the number of observations brings the measurement closer to real-world conditions.
2. Recordings during observations must be done promptly, capturing what is seen for the first time without any hesitation.
3. Avoid double recording, ensuring that no worker is recorded more than once at the same time.
4. All observations made by the respondents must be thoroughly recorded, regardless of the circumstances.
5. Each respondent or worker should have an equal opportunity to have their data collected.

The procedure for implementing the work sampling method includes the following steps:

1. Selection of workers and identifying the specific elements of work to be observed.
2. Creating work sampling tables or observation forms for data recording purposes.
3. Conduct pre-work sampling by making initial observations to estimate the required number of observations during the actual work sampling process.
4. Testing the uniformity of data, wherein data falling within the control limits (UCL & LCL) is considered uniform, while data outside these limits is considered non-uniform. In the case of non-uniform data, observations from that day are excluded, as they do not stem from the same causal system.

$$\text{UCL} = \bar{p} + 3\sqrt{\frac{\bar{p}\,(1-\bar{p})}{n}} \tag{2}$$

$$\text{LCL} = \bar{p} - 3\sqrt{\frac{\bar{p}\,(1-\bar{p})}{n}} \tag{3}$$

5. Test the adequacy of data. Data is considered adequate if the number of samples (n') is less than or equal to the required number of samples (n), allowing the productivity measurement to proceed. On the contrary, if the data is insufficient, additional observations are conducted by incorporating them into the existing pre-work sampling observations until enough data is obtained.

$$S = k\sqrt{\frac{p(1-p)}{n}} \tag{4}$$

$$n = \frac{k^2(1-p)}{s^2\,p} \tag{5}$$

The value of k depends on the following level of confidence [6]:
CL = 68% - 94%, K = 1
CL = 95% - 98%, K = 2
CL = 99% - 100%, K = 3

6. Calculate %productive and %non-productive activities from the results of work sampling.

$$\%\text{Productive} = \frac{\sum \text{Productive Activities}}{\text{Total Observations}}\ x\ 100\% \tag{6}$$

$$\%\text{Non} - \text{productive} = \frac{\sum \text{Non-Productive Activities}}{\text{Total Observations}}\ x\ 100\% \tag{7}$$

2.3 Job Analysis

According to Dessler [7], Job analysis is a process that involves identifying employee responsibilities based on their attributes through various methods such as interviews, questionnaires, observations, and diary logs. This analysis results in the formulation of job descriptions and job specifications, which outline the suitable qualifications and characteristics required for individuals to be employed in the job position. The job analysis steps are as follows:

1. Identification of work activities related to the job and activities description.
2. Identification of the consequences, if not carrying out work activities, and the impact if negligence occurs.
3. Identification of important functions related to special tools and media needed to support the implementation of work activities.
4. Identification of preparedness factors related to working conditions and to whom the work activity will relate directly.
5. Identification of employee competencies needed for the job along with the level of importance and individual assessment of it. Where it relates to job specifications consisting of education, experience, knowledge, and skills of workers.
6. Identification of job specifications related to the characteristics of workers with the level of importance and individual assessment of it. Where it relates to the character that workers must have in facing challenges in the implementation of work activities.
7. Identification of suitability between work activities, machines, and other suitability indicators with worker capacity. Where at this stage job design restructuring can be carried out, namely the transfer or exchange of job roles and job descriptions if there is a discrepancy in them.

3 Methods

The research was conducted by collecting job descriptions, observed activities, performance ratings, and allowances for each job role through manager interviews at the Logistics Company's Export-Import (Exim) Department. The results of collecting job description and work activities data are used to analyze worker productivity by work sampling through 400 direct observations of each job role (100 observations per day per job role). The %productive from work sampling results, performance ratings, and allowances is used as input in workload analysis to determine the optimal amount for each job role.

Manager interviews and questionnaires for each job role related to tools, work machines, working conditions, relationships, consequences, and impacts as well as job specifications data are carried out for job analysis after workload analysis results are obtained. Job analysis is used to identify suitability between work activities and the abilities or skills of each job role. This suitability will be used to determine work activities that can be transferred from other job roles that have an overloaded workload to increase productivity and even out the workload.

4 Results and Discussions

4.1 Work Sampling and Workload Analysis

In this study, the results of work sampling showed that the productive activities of supervisor and admin staff could still be improved, it's because the % of non-productive exceeds the %allowance set by the manager. The gap between the % non-productive of a supervisor during observation and % allowance is 3%, while the gap between the % non-productive for field admin staff during observation and %allowance is 5.3% (see Table. 4 and Table. 5).

Table 4. Activities of Each Job Role

Job Role	Job Description	Activities
Supervisor	Monitoring shipment	Update tracking shipment
		Recap outstanding settlement
		Recap outstanding shipment
		Monitor PIC Field
	Coordination with the commercial, shipping company, and PIB operator	Communicate with the commercial, shipping company, PIB Operator
Leader	Compile prefinance	Provide an estimated operating budget
	Monitoring shipment	Determine PIC Field
		Update and recap the progress shipment
		Update and recap the progress settlement
	Coordination with the commercial, shipping company, and PIB operator	Communicate with the commercial, shipping company, PIB Operator

Billing admin	Transfer payment of operational costs	Accept operational costs from PID Field
		Transfer payment of operational costs to the shipping company
	Monitoring shipment	Update tracking shipment
	Invoicing	Settlement of invoice
		Prepare invoicing documents
		Submit invoicing documents to finance
		Submit invoicing documents to the distribution
Field admin	Prepare supporting documents for taking DO	Create supporting documents DO
		Upload supporting documents DO
	Prepare supporting documents for withdrawing the container	Print EIR
		Submit EIR to traffic
	Monitoring shipment	Update tracking shipment
	Invoicing	Prepare invoicing documents
		Submit invoicing documents to the distribution
Expeditor admin	Accept new shipment document	Check and sign the new document
		Input new shipment document in the database
		Handover new shipment document to PIB Operator
	Monitoring shipment	Update tracking shipment
	Invoicing	Prepare invoicing documents
		Submit invoicing documents to the distribution
	Archive files	Collect documents to be archived

Table 5. Comparison of %Productive, %Non-Productive, and %Allowance

Job Role	Productive (%)	Non-Productive (%)	Allowance (%)	Gap between allowance & non-productive (%)
Supervisor	81	19	16	-3
Leader	89.4	10.6	20	9.4
Billing admin staff	91.6	8.4	17	8.6
Field admin staff	77.7	22.3	17	-5.3
Expeditor admin staff	88	12	17	5

The productivity of field admin staff and supervisor can still be increased because the %non-productive result exceeds the %allowance (see Table. 5). Where %non-productive can be used by workers to meet human needs just like the %allowance set by the manager [11]. The results of the workload calculation from the %productive, %performance rating, and %allowance for each job role are identified to determine their workload category (see Table. 6).

Table 6. The Workload of Each Job Role

Job Role	Productive	Performance Rating	Allowance	WLA	Category	Current Number of employees
Supervisor	0.810	1.33	0.16	1.250	Normal	1
Leader	0.894	1.32	0.17	1.381	Overload	1
Billing admin staff	0.916	1.28	0.20	1.407	Overload	1
Field admin staff	0.777	1.09	0.17	0.991	Underload	1
Expeditor admin staff	0.880	1.25	0.17	1.287	Normal	1

Because the workload of the supervisor, expeditor admin staff, and field admin staff is still normal and underloaded, the number of workers for each of the three job roles is optimal, namely 1 [8] (see Table. 6).

As for the leader who is overloaded with 0.081 of workload, if one person is added to reduce workload, each worker will be in the underload category with a workload of 0.691 (1.381 of workload/2 leaders) and lack of workload of 0.31 to reach the normal workload so that the optimal number of the leader is still 1 person. Likewise with the billing admin staff, if one person is added to reduce workload, each worker will be in the underload category with a workload of 0.704 (1.407 of workload/2 billing admin staffs) and lack of workload of 0.296 to reach the normal workload so that the optimal number of billing admin staff is still 1 person [8]. From this optimal number of employees, it is necessary to transfer or reduce the workload using job analysis to even out the workload.

4.2 Work Sampling and Workload Analysis

Job analysis is carried out through a comparison of the job descriptions that each job role must have from the results of manager interviews with the results of the job description questionnaire for each job role. This comparison is used to identify the suitability between work activities and the demands of the circumstances in them with the work capacity of workers [9] (see Table. 7 until Table. 11).

Table 7. Job Analysis of Supervisor

Job Analysis			
Results of Manager Interviews			**Results of Supervisor Questionnaire**
Objectives: Coordinate and supervise the team, make internal decisions, and report to the manager			
Educational	Minimum undergraduate student		Undergraduate student
Knowledge	Logistic, shipping, dan customs clearance as evidenced by Customs Service Management Entrepreneurs (PPJK) certificate		Logistic, shipping, and customs clearance with Customs Service Management Entrepreneurs (PPJK) certificate
Work Experiences	Minimum 5 years in the logistics field as an expeditor, PIC Field, and PIB Operator		8 years in the logistics field as: a. PIB Operator for 2 years b. PIC Field for 5 years c. Expeditor for 1 year
Skills	**Importance level**	**Category**	**Category**

Able to operate a computer	Important	High	High
Ms. office (min. Excel & Word)	Quite important	Fair	Fair
Communication	Important	High	High
Negotiation	Important	High	High
Leadership	Important	High	High
Problem Solving	Important	High	High
Critical thinking	Important	High	High
Time management	Important	High	High
Characteristics	**Importance level**	**Category**	**Category**
Wise	Important	High	Fair
Open to criticism and suggestions	Important	High	High
Firm	Important	High	High
Communicative	Important	High	High
Adaptive	Important	Fair	Fair
Flexible	Important	High	High
Trusted	Important	High	High

The educational, knowledge, experience, and skills capacities of a supervisor must have been by the demands of the job, and are even overqualified in terms of supervisor experience. The supervisor must improve Ms. Office's skills through training to further support the execution of activities. More adaptive characteristics must also be improved because they are important for the supervisor (see Table. 7). The results of the job analysis are by the normal SPV workload (1,250), but with productivity (81%) that can still be increased (-3%).

Table 8. Job Analysis of Leader

Job Analysis			
Results of Manager Interviews			**Results of the Leader Questionnaire**
Objectives: Manage and determine PIC Field, direct and coordinate admin staff, and report to the supervisor			
Educational	Minimum undergraduate student		Undergraduate student
Knowledge	Logistics, shipping, mathematics		Logistics, shipping, mathematics, accounting
Work Experiences	Minimum 5 years in the logistics field as an expeditor, PIC Field, and billing admin		8 years in the logistics field as: a. Finance for 2 years b. Billing admin for 4 years c. Expeditor for 2 years
Skills	**Importance level**	**Category**	**Category**
Able to operate a computer	Important	High	High
Ms. office (min. Excel & Word)	Quite important	Fair	Fair
Communication	Important	High	High
Counting speed	Quite important	High	High
Write neatly	Important	High	High
Leadership	Quite important	Fair	Fair

Delegate tasks	Important	High	Fair
Convey information clearly	Important	High	High
Characteristics	**Importance level**	**Category**	**Category**
Righteous	Important	High	High
Good listener	Important	High	High
Firm	Quite important	Fair	Fair
Communicative	Important	High	High
Adaptive	Important	High	High
flexible	Important	High	High
Motivator	Important	High	Fair

The educational and knowledge capacities of a leader are by the job demands that must be faced for the job role of a leader. However, in terms of experience, the leader does not have experience in a PIC Field which is needed for work activities, namely, determining and monitoring the PIC Field. In addition, the leader must improve Ms. Office and leadership skills through training. Assertive characteristics also must be improved to further support the execution of activities (see Table. 8). The results of the job analysis were not following the leader's overloaded workload (1,381) and optimal productivity (89.4%) so it was necessary to reduce work activities through the transfer of PIC Field Monitor activities to SPVs who had experience as PIC Fields by increasing the KPI (Key Performance Indicators).

Table 9. Job Analysis of Billing Admin Staff

Job Analysis			
Results of Manager Interviews			**Results of Billing Admin Questionnaire**
Objectives: Support PIC Field related to payment of operational costs, settlement, dan billing to customers			
Educational	Minimum undergraduate student		Undergraduate student
Knowledge	Logistics, shipping, mathematics		Logistics, shipping, mathematics
Work Experiences	Minimum 3 years in the logistics field as an expeditor and billing admin		5 years in the logistics field as: a. Expeditor for 2 years b. Billing admin 3 years
Skills	**Importance level**	**Category**	**Category**
Able to operate a computer	Important	High	High
Ms. office (min. Excel & Word)	Important	High	High
Time management	Important	Fair	High
Counting speed	Important	Fair	Fair
Write neatly	Important	High	High
Document control	Quite important	Fair	Fair
Administration	Important	High	High
Characteristics	**Importance level**	**Category**	**Category**

Thorough and detailed	Important	High	High
Not procrastinating	Important	High	High
Honest	Important	High	High
Initiative	Important	High	High
Adaptive	Important	High	High

The educational, knowledge, experience, and characteristics capacities of admin billing are by the demands of the job that must be faced for the job role of admin billing, there are even overqualified in terms of experience. The billing admin must improve time management, calculating speed, and document control through training because it is important for their job roles and to further support the execution of activities (see Table. 9). Job analysis results are not by the admin billing workload which is overloaded (1,407) and productivity (91.6%) is optimal (8.6%), so it is necessary to reduce work activities through diverting update tracking shipment activities to field admin with underloaded workloads by increasing the KPI (Key Performance Indicators).

Table 10. Job Analysis of Field Admin Staff

Job Analysis			
Results of Manager Interviews			**Results of Field Admin Questionnaire**
Objectives: Support PIC Field related to preparing container retrieval documents, tracking the shipment, dan billing to customers.			
Educational	Minimum undergraduate student		Undergraduate student
Knowledge	Various fields		Construction, logistics, and shipping
Work Experiences	Minimum 0-2 years in various fields, especially logistics or as a staff with the job description of the monitor and preparing documents.		a. 1 year in the construction field as a project control b. 1 year in the logistics field as a PIC Field
Skills	**Importance level**	**Category**	**Category**
Able to operate a computer	Important	High	High
Ms. office (min. Excel & Word)	Important	Fair	Fair
Time management	Important	High	High
Write neatly	Quite important	Fair	Fair
Administration	Important	High	High
Document control	Quite important	Fair	High
Characteristics	**Importance level**	**Category**	**Category**
Thorough and detailed	Important	Fair	High
Not procrastinating	Important	High	High
Curiosity	Important	High	High
Adaptive	Important	High	High
Initiative	Important	High	High

The educational, knowledge, and experience capacities of field admin staff is following the job demands that must be faced by the field admin job role. The field admin must increase Ms. Office and document control through training as well as careful and detailed characteristics because this is important for their job roles (see Table. 10). The results of the job analysis are not following the field admin's workload which is overloaded (0.991) and productivity (77.7%) is not optimal (-5.3%), so it is necessary to add work activities as previously explained along with stricter KPI (Key Performance Indicators).

Table 11. Job Analysis of Expeditor Admin Staff

Job Analysis			
Results of Manager Interviews			**Results of Expeditor Admin Questionnaire**
Objectives: Support PIB Operator related to checking and receiving new import documents, archive documents, tracking shipments, and billing to customers			
Educational	Minimum undergraduate student		Undergraduate student
Knowledge	Various fields, especially logistics		Construction, logistics, shipping
Work Experiences	Minimal 3 years in various fields, especially logistics as expeditor admin or as a staff with the job description of the monitor and preparing documents.		a. 2 years in the construction field as a project admin & control b. 2 years in the logistics field as an expeditor admin
Skills	**Importance level**	**Category**	**Category**
Able to operate a computer	Important	High	High
Ms. office (min. Excel & Word)	Important	High	High
Time management	Important	High	High
Document control	Important	High	High
Administration	Important	High	High
Write neatly	Quite Important	Fair	Fair
Characteristics	**Importance level**	**Category**	**Category**
Thorough and detailed	Important	High	Fair
Not procrastinating	Important	High	High
Curiosity	Important	High	High
Adaptive	Important	High	High
Initiative	Important	High	High

The educational, knowledge, experience, skill, and characteristic capacities of the expeditor admin are following the job demands that must be faced by the job role of expeditor admin, there are even overqualified in terms of expeditor admin experience (see Table. 11). The results of the job analysis correspond to the expeditor's workload, which is in the normal category (88%) and optimal productivity (5%).

According to the job analysis results, produced the job design restructuring recommendation that can eliminate the need for companies to add new workers, which means companies must pay for recruitment and training [9]. In addition, the company must

rearrange KPIs based on the work activities of each job role that has been changed [8]. The preparation of KPIs is adjusted to the abilities and capacities of each worker. Socialization of changes along with setting KPIs for each activity for each job role needs to be conveyed clearly to avoid misunderstandings in applying changes. Each worker himself must also quickly adapt to change. The possibility of these changes is not the right solution to overcoming outstanding billing problems, which is something that needs to be prepared by the company.

5 Conclusions

The productivity of field admin staff and a supervisor can still be increased. Coupled with the workload of field admin staff who are still underloaded. To Increase the productivity of a supervisor and the workload of field admin staff is needed the job design restructuring recommendation by transferring work activities from the leader and billing admin staff who have an overloaded workload. The activity transferred from the leader to the supervisor is the activity of monitoring the pic field because according to the job analysis results, the leader has no experience in a PIC Field. While the activity that was transferred from the billing admin staff to the field admin staff was the update tracking shipment because this activity was not in line with the objectives of admin billing admin staff according to the job analysis results. The supervisor and expeditor admin staff have a normal workload. The expeditor admin staff also has optimal productivity because %non-productive results do not exceed the %allowance.

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