WORKLOAD ANALYSIS ON CV.SASWCO PERDANA

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Abstract-The research aimed to find out how the workload can be evenly distributed in CV.Saswco Perdana, so employees have clear job analysis. The methodology used is Workload Analysis. Primary data is collected by questionnaires and workload form that distributed to 12 employee and interview the management. There are several job positions are overload and under load. Overall, the most employees understand their job analysis and know their standard workload. Suggestions for CV.Saswco Perdana are company should review the job description for employee of each position and reduce some overload job to under load job.

Keywords: Workload, Job Description, Human Resources Management, Workload Analysis
Category: Human Resources Management, Human Resources Planning, Work System, Workload Analysis

Introduction

In the age of globalization business in Indonesia have been grow up. Company gives special treatment for increasing their efficiency and productivity to achieve the business goal. In generally, companies have the same goals to achieve high revenue. Human resources are the main role and the important element for help company increasing efficiency and productivity to achieve the demand of customers and company performance. To achieve the goals, company needs effective management systems that will support the way company operations in the future and level of workload given to the employees.

Human resources management concern with how people are managing within organizations, focusing in policies and systems (Collings, 2009). Human resources should be organizing to balancing employee needs and organization capabilities. The balance is keys of company to develop their productivity. Human resources planning help company to creating the balance. Human resources management can help ensure that company gets the right result through people. Job analysis is the way of company goals. Job analysis is the way of company goals. Workload analysis is a process that conducted logic, systematic, and continuous to know the number and quality of employee needed. The analysis of employee needed done in order to clarify the job of employee. So, they can show their contribution to achieve the organization's mission or goals (Kep.Men.PAN No: KEP/75/M.PAN/7/2004).

Human resources should be organizing to balancing employee needs and organization capabilities. The balance is keys of company to develop their productivity. Human resources planning help company to creating the balance. Human resources planning are the process that conducted systematically to prepare the human resources availability that competent and have a good quality in their field, and also have a good competitiveness that match with the company's goals (Edison, 2010).

Literature Review

Human Resource Management
Human Resources Management is the process of acquiring, training, appraising and compensating employees, and attending to their labor relations, health and safety, and fairness concern (Dessler G. , 2006). Human Resources concern with how people are manage within organizations, focusing in policies and systems (Collings, 2009). According to Armstrong (2009) in Waiganjo (2012) strategic human resource management (HRM) emphasizes the need for the HR plans and strategies to be formulated within the context of overall organizational strategies and objectives and to be responsive to the changing nature of the organization's external environment.

Human Resource Planning
According to Veithzal (2009) human resources planning are the first step in preparing competent human resources according to their field of work so that efficiency and effectiveness can be realized and the company's goals can be achieved. One of the classic definitions of planning: planning is basically a decision now about the things that will be implemented in the future. Human resources planning thus have focused attention on the specific steps taken by the management in order to ensure the availability of the right to occupy various positions, positions and the right job at the right time. This is done in order to achieve the goals and objectives that have been and will be set.

The advantage of human resources planning according to Veithzal (2006):
- Strategy integration between demand and the number of existing staff
- Used human resources with effective
- Competition of human resources and the target of company in the future.
- Saving cost in recruitment new employee
- Expand of human resources management information appropriate with human resources activity and organization units.
- Demand in large quantities in the local labor market will fulfill.
- Coordination of programs available human resources and needs.

Job Analysis
Job analysis is the procedure for determining the duties and skill requirement of a job and the kind of person who should be hired for it (Dessler, 2006). Job analysis produces information used for writing job specifications and job descriptions. According to Dessler (2006), job description is a list of a job's duties, responsibilities, reporting relationships, working conditions, and supervisory responsibilities. Job description is one product of a job analysis. Job analysis and descriptions are vital because it helps to support several human resource management activities such as recruitment and selection processes, compensation, training, and performance appraisals. The core of a job description is outlining the tasks, duties and responsibilities of a position, often in a bullet point format and order of importance. It communicates the education, professional experience and skills required or at least preferred of candidates. Job descriptions also may articulate the physical demands of a job and working.

Job specification is a list of a job's "human requirement," those us, the requisite education, skills, personality, and so on- job specification is another product of a job analysis. According to (Coutler, 2007), job specification is a statement of minimum qualification that person must possess to perform a given job successfully. Job specification is a statement of employee characteristics and qualifications required for satisfactory performance of defined duties and tasks comprising a specific job or function. Job specification is derived from job analysis. That is, the requisite education, skills, personality, and so on another product of a job analysis.

Workload

Workload as "the perceived relationship between the amount of mental processing capability or resources and the amount required by the task" (Hart, 1988). According to Robbins, 1996 in Shah, 2011 Workload refers to the intensity of job assignments. It is a source of mental stress for employees. Stress is an active state of mind in which human being faces both an opportunity and constraint. According to Badan Kepegawaian Negara (2001), workload is the average frequency of each type of job in a given time period. Estimating the workload of each organizational unit can be done by calculation or based on experience. Based on PAN (2004) workload is the main aspect for calculating employee formation. The calculation based on productive working time of employee. Workload is number of job target or result of target which to achieve on average types of job.

Workload Analysis

According to Dasgupta (2013) Workload analysis is a methodology to determine the time, effort and resources necessary to carry out the product department's operations, resulting in identifying the organization's actual needs of human resources both in terms of quality, and develop these resources to achieve the goals and strategies that the organization wants to achieve in the various work sites. The workload is analyzed by evaluating the current human resources structure, and then the organization's actual needs of human resources can identified in order to implement the process necessary to provide a particular service. Workload analysis is a process that conducted logic, systematic, and continuous to know the number and quality of employee needed. The analysis of employee needed done in order to clarify the job of employee, so, they can shows their contribution to achieve the organization's mission or the program that have been set (Kep.Men.PAN No: KEP/75/M.PAN/7/2004).

Workload Analysis Assessment

According Rodahl (1989) assessment of physical work load can be carried by two objective methods, namely the direct assessment method by measuring the energy expended by oxygen intake during work, and indirect measurement method, by calculating the pulse rate for employees working. According to Grandjean (1988), an approach to determine how much a large workload is to calculate the working pulse, oxygen consumption, pulmonary ventilation capacity and core body temperature.
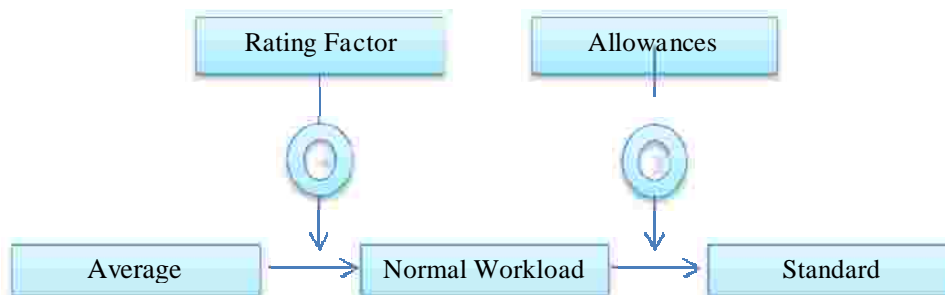
Workload Calculation Step

Figure 1 Workload Calculation Step

igure 1 show the steps of workload calculation according to Sutalaksana et al. (2006). The steps of calculation can desribe in below:

a. Average Workload

The average workload is the total average of work finished. The average workload number obtained from the comparison between total working used per day and total working time available per day (Render et al.2009).

The formula of average workload is:

$$Ws = \frac{\sum X_i}{N}$$

b. Normal Workload

Normal workload proposed to gets the working time ideal for employee. The normal workload gets from the average workload should be multiplied by rating factor (Render et al.2009).

$$W_n = W_s \times P$$

c. Standard Workload

After calculating the average workload and standard workload, allowances are given time to relieve fatigue and obstacles that cannot be avoided given with regard to the circumstances and conditions that must be solved (Wignjosoebroto, 2008). Standard workload can calculate:

$$W_b = W_n (1 + I)$$

The standard workload gets from normal workload multiplied by allowance plus one. Which I am allowances that given to employee to finish their work beside normal standard.

d. Rating Factor

Rating factor form is the assessment of employee that viewed by skill level and effort level. Rating factor is result from the performance assessment form that filled out by the top management from CV. Saswco Perdana that is CEO.

e. Allowances

After calculating the average workload, workload standards, so the normal workload can be known. One of important things that add to standard workload is allowances. According to Sutalaksana et al. (2006) allowances to determine the amount of allowances for three things are personal needs, eliminating the sense of fatigue and unavoidable obstacles.

Methodology

Data Collection

Data collections include primary and secondary data. Secondary data, from CV Saswco Perdana researcher collected the data about job analysis, employee number and company profile from the literature and any written documents. The primary data is collected by questionnaire and form, interview and observations. Interview, researcher will ask some questions to some employees in order to know what their job analysis, the workload from their perspective. The interview will be done with one until four of employee in CV Saswco Perdana. The primary data collected through the questionnaire, form filling and observation. The questionnaire distributed to 12 employees. The questionnaire is useful as a method of data collection, especially to know the demographic of respondent consist on gender, age, education background, job position and working experience. The types of questionnaire are likert scale and consist of 15 questions about job analysis and workload.

Data Processing

In this step, the researcher should process the data which had been collected in data collection. The questionnaire is closed question in questionnaire (Likert), there are already data coding which is grade 1,2,3,4,5 which mean from 1 is very disagree until 5 is very agree statement. The result from workload form, rating factor and allowance form will calculate using Ms. Excel with formula based on Sutalaksana et al. (2006) and Kep.Men.PAN No: KEP/75/M.PAN/7/2004. The job description from workload form will categorize into 4 categories that is daily, weekly, monthly, semester and yearly.

Total time of each categorize should convert to minute and convert to hours, so can get the activities per day. The calculation can be seen in the figure 2.

$$Daily = \frac{Total\ of\ working\ time\ daily\ in\ minute}{60\ minutes}$$

$$Weekly = \frac{Total\ of\ working\ time\ weekly\ in\ minute}{60\ minutes \times 5\ days}$$

$$Monthly = \frac{Total\ of\ working\ time\ monthly\ in\ minute}{60\ minutes \times 22\ days}$$

$$Semester = \frac{Total\ of\ working\ time\ semester\ in\ minute}{60\ minutes \times 22\ days \times 6\ month}$$

$$Yearly = \frac{Total\ of\ working\ time\ yearly\ in\ minute}{60\ minutes \times 22\ days \times 12\ month}$$

Figure 2 Activities Per day Calculation

Data Analysis

a. Workload Calculation and Analysis

Workload is an important thing to calculate the employee needed in company. Based on it, the company knows that the existing number of employee is efficient or inefficient and known the workload evenly distributed or not. Working hours in Indonesia is 8 hours and overtime is 7 hours per day and 40 hours per week for a six-hour working day in a week, or 8 hours per day and 40 hours per week to five working days in a week. The job analysis of employee CV.Saswco Perdana is not included overtime and the time if the employee has overtime will be analysis with the workload calculation. After collected data from the workload form, rating factor and allowances form. The workload calculation based on workload analysis will be described in table 1.

Table 1 Workload Analysis

Job Descriptions	Working time	Frequency	Total of Working time	Job Category
Purchasing Cotton	60 minute	2x	120 minute	Weekly
Purchasing Polyester	60 minute	2x	120 minute	Weekly
Purchasing equipment	180 minute	1x	180 minute	Weekly
Controlling raw materials	120 minute	2x	240 minute	Monthly
Distribution	120 minute	2x	120 minute	Weekly
ALLOWANCE			RATING FACTOR	
Factor	Observations Result		Skill Level	Effort level
Manpower	0		100	100
Work Attitude	2			
Labor Movement	0			
Eyestrain	3			
Temperature	0		WORKING TIME	
Atmospheric	0		Working Time Per day	8 hours
Environmental Conditions	0		Overtime	0

Table 1 Workload Analysis (continued)

Personal Needs	2		Total Working Time	8 hours
Total Allowances	7%			

Table 2 Workload Calculation

	Daily	Weekly	Monthly	Semester	Yearly
Total Time of Each Category (minute)	0	540	240	0	0
Activities per day (hour)	0.00	1.80	0.09	0.00	0.00
Total Time Needed per day (hour)					1.98
Skill Level	100	100	1	Allowances	
Effort Level	100	100	1	Male	7%
Rating factor			1	Female	8%
Total working time per day (Used)				119	Minutes
Total working time per day (Available)				480	Minutes
Average Workload (BKs)				0.248	
Rating factor				1.00	
Normal Workload (BKn)				0.248	
Allowances				0.07	
Standard Workload (BKb)				0.265	Under load
Number of employee needed (Recommendation)				0	Person

Based on the calculation on Table 4.2, the job description categories for production staff is weekly and monthly and the activities per day is 1.80 hour per weekly and 0.09 hour per monthly. The result of activities day get from calculation formula in figure 4.1. The total time needed is 1.98 hours per day to carry out its work. The amount of time used is convert to minutes that is 119 minutes. The amount of time used after in convert will be compared with the amount of work time provided that is 480 minutes. After that, it will be known to Average Workload is 0.248 (119/480=0.248). Rating Factor used to determine the normal workload. Rating Factor of production staff gets from evaluation by CEO with 100 for skill level and 100 for effort level. So, can get that rating factor for production staff is 1 ((100+100)/2=1). The result of Average Workload is multiplied by Factor Rating then it will be know the Normal Workload is 0.248. Standard Workload will be known by multiplying the normal workload with allowance plus one. Allowance figures obtained from observations by researcher, allowances for production staff is 7%, so the workload standard is 0.265 (0.248*(1+0.7) =0.265). Productions staff not have overtime. From the result can be concluded that employees requires to work the task is 1 person. Compared with the existing number of employee for the position equal with number of employee needed based on workload calculation. The workload of production staff is under load, because the standard workload lowest than 1. Company should add more jobs for this job position.

b. Employee Perception to Job Analysis and Workload

After data processed, there were came out the result of questionnaire and workload calculation. The result of questionnaire is based on employee perceptions to job analysis and workload. The result can be seen in figure 3 and figure 4.
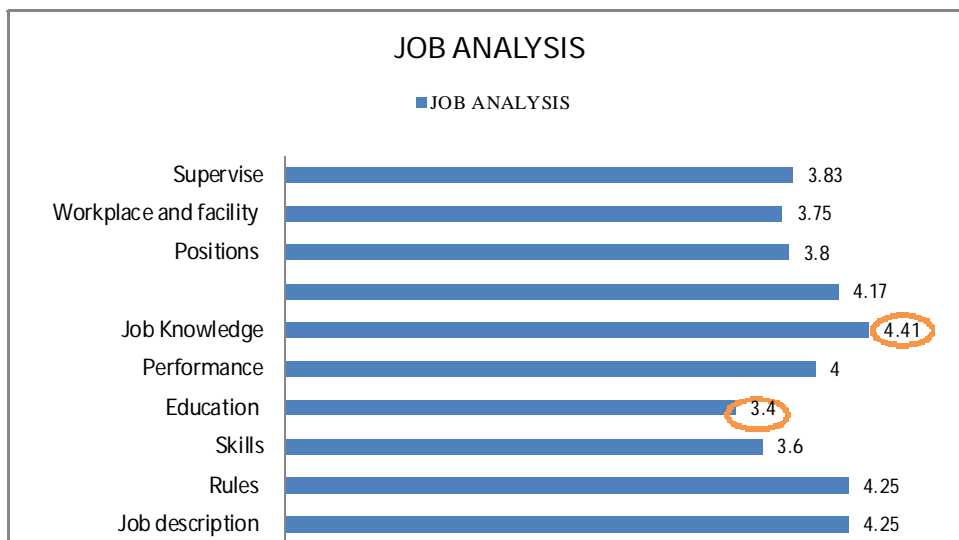

Figure 3 Employee Perceptions to Job Analysis

Figure 3 shown the highest place is Job Knowledge with 4.41 out 5. It means that employee of CV.Saswco Perdana has understanding their job analysis. The other variable shows relativity acceptable score. The lowest place is Education with 3.4 out 5. Although the variable is lowest place the score is relativity acceptable. It means that employee have related education with their job.
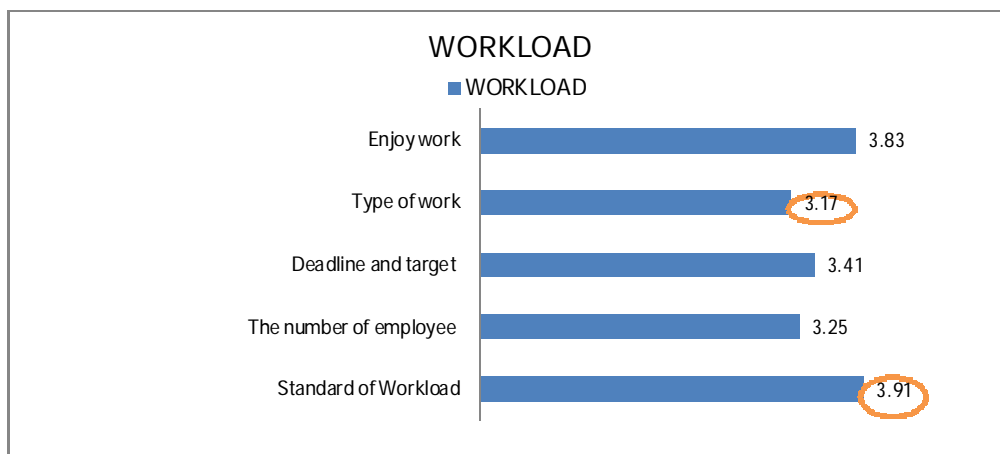

Figure 4 Employee Perceptions to Job Analysis

Figure 4 shown the highest place is standard workload with 3.91 out 5. It means that employee of CV.Saswco Perdana has workload is related with their standard workload. The other variable shows relativity acceptable score. The lowest place is type of work employee with 3.17 out 5. The score of variable is relativity acceptable score. It means employees are doing the same job every day.

c.   Implications Managerial
        a.   Workload Distribution on CV.Saswco Perdana
The workload distribution on CV.Saswo Perdana based on workload calculation Sutalaksana et al. (2006) can be seen in the table 4.25.

Table 3 Standard Workload of CV.Saswco Perdana

Job Position	Standard Workload	Workload
Production Staff of T-shirt	0.265	Under load
Coordination Design T-shirt	1.436	Overload
Quality Control and Sample T-shirt	1.082	Overload
General Staff T-shirt	0.846	Under load
Director of Production T-shirt	0.510	Under load
Marketing of T-shirt	0.962	Under load
Finance of T-shirt	1.307	Overload
Chairwoman of Shirt	1.970	Overload
Finance Administration and Marketing of Shirt	1.100	Overload
Director of Production and Sample of Shirt	1.177	Overload
Finance and Marketing of Baby Wear	1.354	Overload
Director of Production of Baby Wear	1.012	Overload
Total of Standard Workload	13.021	

Based on the table 4.5 shown, in several jobs have overload and under load. Workload in CV.Saswco Perdana is not distributed evenly. The highest workload there are in Coordinator Design of T-shirt are 1.436, Finance of T-shirt are 1.307, Chairwoman of Shirt are 1.970, Finance and Administration Shirt are 1.100, Director of Production of Shirt are 1.177 and Finance and Administration of Baby wear are 1.354. While, the lowest workload are in Production staff is 0.265, General Staff is 0.846 and Director of Production T-shirt is 0.510 and Marketing of T-shirt is 0.962. The total of standard workload for all workload in CV.Saswco Perdana is 13.021 hour in one year.

        b.   Workload Allocation on CV.Saswco Perdana

Table 4 Workload Analysis Result of All Positions

Job Position	Actual	Recommendation
Production Staff of T-shirt	1	1
Coordination Design T-shirt	1	2
Quality Control and Sample T-shirt	1	1
General Staff T-shirt	1	1
Director of Production T-shirt	1	1
Marketing of T-shirt	1	1
Finance of T-shirt	1	2
Chairwoman of Shirt	1	2
Finance Administration and Marketing of Shirt	1	2
Director of Production and Sample of Shirt	1	2
Finance and Marketing of Baby Wear	1	2
Director of Production of Baby Wear	1	1

Table 3 shown about the workload allocation on CV.Saswco Perdana. The job positions have overloaded is Coordinator Design, Finance of T-shirt, Chairwoman of Shirt, Finance Administration of Shirt, Director Production and Sample, and Finance of Baby wear. Workload allocations the employees that needed by CV.Saswco Perdana Management are 4 persons. There is recommendation to put 1 or more people in several positions. It is because in several positions is very high overload and needed more people to carry out the task. For Chairwoman it would be better if the workloads for the positions are reduced and delegate to finance and operation. To director of production cannot able to hire because the job need 1 person to handle it. It means company should increasing the salary and benefit as reward because their doing excess workload. In several positions has under load workload company should their jobs or task to increasing performance.

Conclusion and Recommendation

Conclusion

1. Based on the workload calculation, CV.Saswco Perdana has problem in the workload. In several job positions has overload and under load. The job position has overload is 6 position that is Coordinator Design of T-shirt, Finance of T-shirt, Chairwoman of Shirt , Finance and Administration of Shirt, Director of Production and Sample of Shirt, and Finance Administration of Baby Wear. While the job position has under load is 4 positions that is Production Staff of T-shirt, General Staff, Director of Production T-shirt, and Marketing of T-shirt.

2. The position has overload and need employee is Coordinator Design need 1 person, Finance of T-shirt, Finance and Administration Shirt need 1 person, Finance and Administration Baby Wear need 1 person. Chairwoman and Director of Production of Shirt cannot be able to add more people because the job position is high and can handle it by 1 person, the job description of Chairwoman still not clear because the job performed by the chairwoman there is a part of marketing, finance and operations job.

3. Based on employee perceptions to job analysis is the most employees of CV.Saswco Perdana have understanding their job analysis and know so well their job. Based on employee perception to workload, the result is the most employee workload is related with their standard workload. In the type of work variable, employees are doing the same job every day

Recommendation
Based on the conclusion, there are some recommendations improvement for CV.Saswco Perdana, in order to improve the workload can be evenly distributed in the company, so employees have ideal workload.

1. Review the job description for employee of each position to optimally their work performance.
2. Reduce and delegate some overload job to under load job to optimize work.
3. CV. Saswco Perdana must provide rewards in the form of increase in salaries and benefits to employees who work on the excess of the workload should be.
4. Limitations of researchers in conducting the research only on management CV.Saswco Perdana. Then, further research is done on all employees of CV.Saswco Perdana
5. For the future research, researcher suggests to developing this research in time study, because the performance of employee in CV.Saswco Perdana should improve and there is much potential information that can develop from that approach to develop a research in the future.

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