

CHAPTER I PRELIMINARY

I.1 Background

Currently the world is experiencing a crisis caused by a new type of disease, namely the Corona Virus. PT. Surveyor Indonesia (Persero) is an independent surveyor company, the reputation has evolved in providing survey service, inspection, and consultancy. PT SI is a service company that get the impact of pandemic Covid – 19. This impact resulted many aspects of the company such as, the existence of several work procedures that were hampered because all employees were unable to carry out normal company activities. Due to large-scale work restrictions during the pandemic, a new work pattern has been created which can be called work from home. With this new system or work pattern, the Company and HR are trying to form a new system by mixing technology with work processes. So that the output obtained is a new work system called a hybrid or a mixture of working at home and office work. This has resulted in every company having to have a new work plan to adapt to the conditions of this pandemic.

From some of the information obtained, it is known that this is related to the lack of socialization prior to the implementation of the changes. Employees are also still adapting to new conditions. Then due to this pandemic, working hours have been reduced. Employees working in the field are also reduced in intensity. Reduced working hours or limited working hours based on existing regulations during a pandemic.

Table I-1 Actual Working Time Of Surveyor Employee (Pandemic)

No	Description	Working Time
1	1 Day	6 Hours
2	1 Week	3 Days
3	1 Months	12 Days
4	1 Years	156 Days

Table I-2 Existing Working Time of Surveyor Employee

No	Description	Working Time
1	1 Day	8 Hours
2	1 Week	5 Days
3	1 Months	20 Days
4	1 Years	260 Days

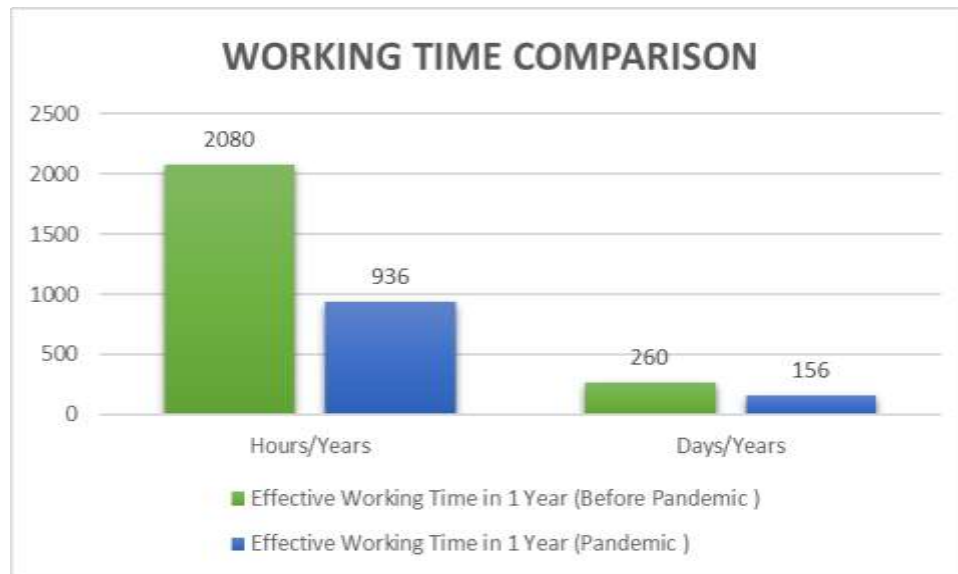


Figure I.1 Working Time Comparison Chart

The chart above shows the change in working hours of the surveyor employee at PT Surveyor Indonesia Pekanbaru, which can be seen during the pandemic period, the working time in a year is 156 days and the effective working time is 936 hours/year. While the working time in a year before the pandemic was 260 days with an effective working time of 2,080 hours/year. The effective in here are how workers able to finish their job in the specific time, how many project that finish in a day, no accident , no human error, etc.

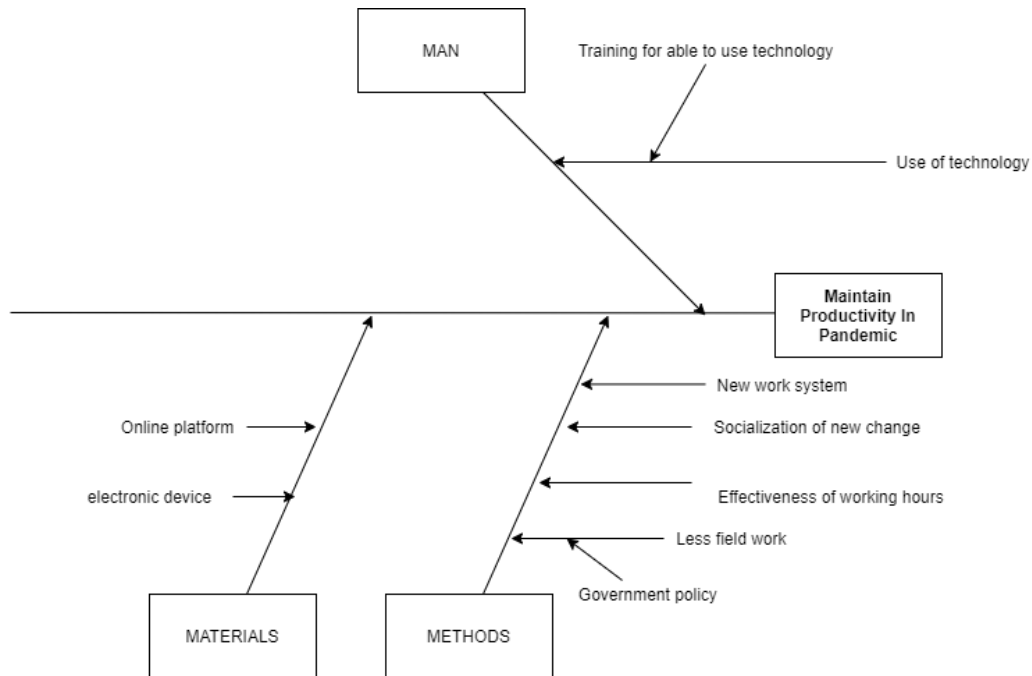


Figure I.2 Fishbone diagram

From the fishbone there are three aspects that might influence the productivity of the surveyor employee in pandemic situation. To maintain the productivity of the employee in this change, PT SI have to consider the aspect that relate with the man, materials, and method. To make sure that the employee will keep at the good work performance, PT SI have to conduct the training so the employee able to use technology and electronic device. New work system during the pandemic. The change of work system is related with the job of employee. The most significant new work system seen is the change in the use of technology. The use of technology here is very influential because it will result in many changes in work activities, work facilities, and how an employee can adapt to the use of technology in the future.

Table I-3 Job Description existing

POSITION	THE INTENTION OF OFFICIAL POSITION	AUTHORITY	RESPONSIBLE	WORK RELATIONSHIP
SURVEYOR	Lead and carry out survey work	Controlling the survey team in field work	Preparing for field work includes reviewing designs, determining work equipment, and field work facilities	Reporting field supervisor
		Assign executives profession	Make a daily work plan survey	Coordination with drafter and quality control
		Terminate job, request rework and refuse work inappropriate survey with quality requirements which has been specified	Processing data and checking survey results.	Coordination with land team
		Termination of work if it doesn't meet HES procedure	Make a report of work results to the field supervisor	Communicating with the work environment
		Reporting work survey	Ensure that procedures are followed HES rules and requirements within the team underneath	
			Comply with all procedures, regulations and HES requirements	
			Report incidents, near miss and dangers potential to field supervisor	

The new job description is from aspect authority they have to be able to make online monitor field work, and make online daily check in. And it responsible to hold daily meeting which aims to monitor and ensure every job is on target and work plan via online. And the second job is make attendance report, collect work record before, during, and after work via online. As the data from company, the existing require for surveyor are;

- Doing group work and working according to procedures
- Able to lead work groups, mastering work related to survey tools
- Understand reporting procedures
- Responsible for smooth work
- Can think to make technical decisions

And the requirement for the educational level are:

- Min Senior High School

And the condition after pandemic, because there are proposed of job description, so the requirement for surveyor from ability and educational must be change. Because there must be adjustments to new conditions with old ones, it is known that in the existing conditions the company does not require employees of the surveyor division to be able to master computers / data

operating systems. Meanwhile, with the new work series, which requires employees to be able to conduct online meetings and daily check-ins which are done online, the skills to be able to operate computers, laptops, or other devices must be considered.

Job redesign will affect aspects of the company so that it helps the company to achieve its goals. To achieve this goal, it is necessary to have a work plan that can work systematically, effectively, and efficiently. This design and planning will be used in the organizational system in the form of Job redesign. So job redesign is very influential in solving problems at PT Surveyor Indonesia. Briefly it can be explained that Job redesign is a way to organize the work activities of each individual or group of workers in an organized manner.

Job Redesign also help PT SI to know the new job design that can implemented in pandemic era to maintain their performance especially for surveyor division. To develop the quality of employees, the company's HR department must have a very good strategy to find the most appropriate job redesign to be implemented during a pandemic. Job redesign is a way and effort of company HR to improve and adapt to a more dynamic, productive, and rapidly changing business pattern. (Siengthai & Pila-Ngarm, 2015). Job redesign and good characteristics will improve employee performance at work. (Hackam & Oldman, 1976).

Job redesign can help the placements and activities that employees must perform. The design of this work aims to ensure that it can complete the tasks assigned by the company in hybrid conditions as it. (de Pontbriand & Knapik, 1996) Job redesign has many advantages, one of which is to reduce the physical burden. In this case it allows employees to be able to parse the workload and can expand and enlarge their job activities. So that employees can and are ready to work in new conditions. (de Pontbriand & Knapik, 1996). In a broad scope, job redesign is used to determine employee duties and activities with a good system so that work can be done efficiently and effectively. According to (Handoko, 2011) Job redesign is a way to determine what tasks must be completed by an employee in the organization. Job redesign is very important things that will determine the work activities that the employee done already effective or no. (Swastha & Irawan, 2003). Job Redesign is a strategy for company HR to make employee can adapt in new work condition, because employee is important asset for company. (Siengthai & Pila-Ngarm, 2015)

In compiling the job redesign, various approaches will be used such as Logbook or Diary Sampling, NASA-TLX, and interviews. Job redesign have five types of types namely job rotation, job enlargement, job enrichment, job simplification, and flexible hours. This job redesign are helps company to find out the most suitable methods that can be apply in this situation.

Diary sampling is a method of collecting data that is carried out repeatedly in a certain time which is carried out in daily activities. While work sampling is a method of taking a sample of an observation within a certain period of time from a working group. By using the diary sampling method, data will be obtained that makes it easier for researchers to analyze interpersonal and intrapersonal processes. Diary sampling can also describe the external changes that occur so as to make it easier to know the variables that are context dependent. Another approach is NASA-TLX questionnaire. NASA-TLX is a method for subjectively measuring mental workload. Performing mental workload measurements using NASA-TLX is very often done at this time because NASA-TLX has a fast and easy method of estimating workloads, is very flexible, well-established, works through available software, and has a multidimensional approach. (Stanton, Salmon, Walker, Baber, & Jenkins, 2005)

In this final project there are integrated system between people, facility and information. People in the integrated system design is related with the job position to be analyzed in this final project. The concept in people in this design is Surveyor division in PT Surveyors Indonesia Pekanbaru. Facility are the tools that surveyor employee use to finish their work are surveying equipment, online video conference, electronic device. Main information is get from collecting interview data, logbook, and questionnaire. PT SI give information about the changes in the work system that occur during this pandemic Covid – 19. The change is from work time aspect, job description, and daily task.

With this situation, surveyor division of PT SI will find the suitable way to maintain the performance of its employees to remain effective even though the amount of effective working time is reduced. To make job redesign, it has to know the core of job characteristic that fits in this situation. There are five type of characteristic such as task variety, task identity, task significance, autonomy, and feedback. (Hackam & Oldman, 1976)

Human resources in PT Surveyor Indonesia have been structured in such a way as to support the company in achieving its goals. PT Surveyor Indonesia considers its employees as important and valuable to provide positive feedback between the company and its employees. One way is to empower employees fairly, from any aspect.

I.2 Formulation of The Problems

Based on the background above, the formulation of the problem for this research is “**How is Job Redesign for the surveyor division of PT SI Pekanbaru in Pandemic Era?**”

I.3 Research Objective

Based on the formulation of the problems above, the objective of this study are Design purposed Job description for Surveyor division PT SI Pekanbaru

I.4 Research Limitation

There are several research limitations that writer make for completing research as follows:

1. The research focuses on preparation of Job Redesign for surveyor division of PT SI Pekanbaru.
2. This research will be conducted by collecting data online.
3. This research done by indirect observations
4. Data collected from December 2020 until July 2021
5. Interview conducted online

I.5 Research Benefit

Some of benefits obtained from this research such as:

1. For company become some of reference and new recommendation of job design for their new system in pandemic era
2. For further writers and researches, this research can be used as a references for the same method in research and useful in explaining the most appropriate approach in making job designs.

3. For Telkom University, this research will add a refinement plan to some research and case in same types of characteristic

I.6 Organization of Paper

This research is described in the organization of paper as follows:

Chapter PRELIMINARY

I

This chapter contains a description of the context of the problem, research background, problem formulation, research objectives, research limitations, research benefits, and writing systematics.

Chapter LITERATURE REVIEW

II

This chapter contains literature that is relevant to the problems studied and the results of previous studies are also discussed. At this research this chapter contains that helps author to complete the research. Literature about job design methods, benefits, components, and decision support system. Literature related with this research was obtained from previous studies, journals, internet, and books.

Chapter RESEARCH METHODOLOGY

III

In this chapter contains an explanation of the conceptual model used as a framework for thinking in research, and the problem solving systematics used as a guide to solving these problems.

Chapter INTEGRATED SYSTEM DESIGN

IV

This chapter presents data that has been collected from various sources in accordance with the design concept of this research. Data processing is carried out according to predetermined methods and analysis is carried out to get the final product design that is feasible.

Chapter ANALYSIS AND EVALUATION

V

This chapter analyzes the final results of the design concepts that have been made in the previous chapter. The analysis was carried out to see the success of implementing the methods that have been determined on the design concept and research object so that the results were as expected.

Chapter CONCLUSION AND SUGGESTION

VI This chapter contains conclusions and research results and there are suggestions given to PT SI to develop suggestions for making PT SI job designs during the Pandemic, and become a means of developing knowledge in related fields.