MONITORING THE USE OF PERSONAL PROTECTIVE EQUIPMENT ON EMPLOYERS’ HEALTH AND SAFETY

Levi Anatolia S.M. Exposto*, Manuel Francisco, Terejinha R. Gonçalves, Angelo L. Colo, Quintiliano F. Barros, Hernanio M.C. Costa, Rogerio Fontes
Universidade da Paz, Timor-Leste
*levibebrete@yahoo.co.id

Abstract
Personal Protective Equipment (PPE) is a tool that has the ability to protect a person whose function is to isolate part or all of the body from potential hazards in the workplace. This PPE consists of mandatory equipment used by workers in accordance with work hazards and risks used to maintain the safety of workers as well as those around them. In developing countries such as Timor-Leste, the issue of occupational health and safety still seems to be something that has not received the maximum portion of attention. The aim is to know and understand the use of Personal Protective Equipment for the Occupational Health and Safety of Employees of the Auto Vision Aimutin Company, Dili. This research is qualitative research with an analytical descriptive approach that serves to describe or provide an overview of the object under study through data or samples that have been collected as they are without analyzing and making conclusions that apply to the public. The use of personal protective equipment (PPE) is very important for the health and safety of workers, while those who do not use personal protective equipment are at high risk of contracting disease in the work environment. The results of respondents’ answers about occupational health and safety, occupational health, work safety, and personal protective equipment (PPE) are the majority of respondents answered strongly agree with the percentage value (100%), while to agree and strongly disagree respondents did not provide answers with a percentage value (0%).

Keywords: Personal Protective Equipment, Health, Occupational Safety

INTRODUCTION
In developed countries as well as in newly developing countries such as Timor-Leste, occupational health and safety have always been an important matter that has been regulated in-laws or binding regulations. Such as the Constitution of the Democratic Republic of Timor-Leste (RDTL) 2002, article 50 no 2 and 4 states that “workers have the right to safety and cleanliness at work, the right to pay, rest and vacation rights and forced labor is prohibited, except as provided for by the prison sentence law”. The parties involved in the work environment consistently carry out the rules that have been set with full awareness under the applicable law. On the other hand, in developing countries, the issue of occupational health and safety still seems to be something that has not received the maximum portion of attention.

Occupational health and safety are one of the efforts to prevent occupational diseases and accidents by using personal protective equipment (PPE). Tyas (2011) explains that to ensure the health and safety of employees, it is also necessary to have a law that regulates occupational health and safety. Such as the Law of the Republic of Indonesia Article 86 No. 13 of 2003, which states that every worker or laborer has the right to obtain protection against occupational safety and health, morals, decency, and treatment following the dignity and values of religion.

Implementing this law, it is hoped that the standards of occupational health and safety that are expected by workers will be protected from possible work risks. Both are caused by the work environment and the health of the workers themselves (Human error). The company must
ensure that the work environment and equipment used are safe. Therefore, every company must conduct training for prospective employees before carrying out activities or working in the company according to the applicable occupational health and safety rules or those applied in the company.

Employees as a valuable asset for the company, therefore protecting workers from all kinds of dangers that may arise. As well as creating a sense of security and comfort for every worker need to get more serious attention. All efforts are shown in health and safety efforts for employees in improving their quality of life. To ensure the quality of life of employees or workers in the company, they must be employed humanely. That allows the worker or employee to be in a safe and healthy condition free from accidents and occupational diseases, and their income can meet the needs of a decent life so that their level of welfare can be fulfilled following their dignity and status human dignity.

The existence of K3 (Occupational health and safety) emerged simultaneously with the industrial revolution in Europe, especially England, Germany, and France as well as the Revolution in the United States. This era is marked by a massive shift in the use of production machines to replace human labor. Workers only act as operators. The use of machines produces goods in double quantities compared to what workers did before. The existence of an industrial revolution marked by the use of machines is unemployment and the risk of accidents in the work environment because many workers do not use personal protective equipment (PPE) and the placement of employees is not according to their skills and professionalism. Things like this that will cause physical disability, and death for workers can also cause huge material losses for the company.

To prevent occupational diseases and accidents, a distinction must be made between efforts on occupational safety and prevention of occupational diseases, namely that work safety focuses on equipment from the company, while prevention of occupational diseases is shown to people who work in the company. Besides, these accidents are caused by fatigue. The longer a person does a job, the less his work performance decreases, and the more he works, the faster and better the level of safety. Fatigue can harm the body and spirit. The bad effect on the body is often called "Exhaustion" while the bad effect on the spiritual is called "Neurasthenia".

The problem of labor is related to the productivity of the workforce itself. Therefore, it requires attention and responsibility from the company concerned to pay attention and provide guarantees for the health and safety (K3) of employees. Notoatmodjo (2007) said that from the economic aspect the implementation of K3 (Health and safety) is very beneficial because the ultimate goal of K3 is to increase productivity as optimally as possible.

Notoatmodjo (2007) adds that occupational health and safety (K3) seeks to reduce or regulate the workload of workers or employees by planning, designing a tool that can reduce the workload, for example, a tool to lift heavy loads created by a cart, to speed up the workload writing workers invented typewriters or computers, to reduce the burden of calculating calculators or computers were created and to speed up the stone grinding process there must be a stone grinding the machine.

To be able to anticipate or create such a situation, it is necessary to distinguish between efforts on occupational health and safety that focus on equipment or heavy equipment of the company, while prevention of occupational diseases is aimed at people or workers who work within the company. In addition to the accidents caused by technical problems, some
accidents are caused by fatigue. The longer a person does work, the less work performance and the more work, the faster the fatigue level of the workers or company employees can finally have an impact on the level of productivity and company income.

This is what encourages the importance of employee health and safety, for that a penalty or sanction is needed from the company to employees who violate or do not comply with the occupational health and safety rules that have been implemented within the company. The use of PPE as a control measure against the hazards that arise in the employee's work environment and to prevent, reduce and even minimize the risk of work accidents (Zero accident). The application of this concept should not be considered as an effort to prevent occupational accidents and occupational diseases that cost the company a lot of money. But it should be considered as a form of long-term investment that will provide abundant benefits in the future.

With the birth of the industrial revolution, effective company management must be needed to prevent unexpected work accidents caused by work negligence and a work environment that is not conducive to supporting the health and safety of employees so that such things do not happen. It is also necessary a law that can regulate employee behavior and company responsibilities towards employee health and safety.

Poor labor conditions and high accident rates have prompted various groups to seek to improve occupational health and safety protection. One of them is the protection of employee health and safety. Humans are not just a means of production their safety must be protected. As a result, attention to the safety and health of employees has begun to increase as an important part of the production process. To minimize losses, it is better to take preventive action than to take corrective action after an accident (Incident or accident). What's the point of working hard if we don't become healthy but wretched. Instead, we work hard to meet the necessities of life so that we become prosperous. Therefore, attention is needed from all parties, who are responsible for the health and safety of employees.

AUTO VISION is one of the largest companies in Timor-Leste which is engaged in civil construction (Building) creates jobs for small communities and supports the government to reduce unemployment in Timor-Leste. To ensure the survival of the company increase employee productivity and increase the frequency of company income. There must be training for employees to increase knowledge about the benefits of using personal protective equipment (PPE) and must provide health and safety guarantees for employees.

Looking at the explanation above, the purpose of this research is to know and understand the use of Personal Protective Equipment for the Occupational Health and Safety of Employees of the Auto Vision Aimutin Company, Dili.

METHOD

This research is qualitative research with an analytical descriptive approach, namely taking problems or focusing on problems as they are when the research is carried out, then the research results are processed and analyzed to conclude. The research design used is Cross-Sectional, which is a type of research that emphasizes the time of measurement or observation of independent and dependent variable data only once at a time. The data analysis technique used is descriptive analysis, namely the data used with words or sentences, separated according to categories to obtain conclusions, but sometimes it has reached the presentation
and then interpreted with qualitative sentences such as Disagree. (<55%), Agree (56-75%), Strongly agree (76-100%).

RESULTS AND DISCUSSION
Results
During the research, the researcher saw that the company had full responsibility for the wall-building project. Besides, the company provided a place to live for workers or employees who worked on the wall building. But employees do not want to use PPE when doing work because they feel that PPE can interfere with work and do not know about the dangers caused if they do not use PPE. The data found in the field can be described as follows:

**Level of education**

| No. | Respondent Number | Gender | Level of education | Status  |
|-----|-------------------|--------|--------------------|---------|
| 1.  | 01                | Man    | SD                 | Family  |
| 2.  | 02                | Man    | SD                 | Family  |
| 3.  | 03                | Man    | SD                 | Family  |
| 4.  | 04                | Man    | SD                 | Family  |
| 5.  | 05                | Man    | SD                 | Family  |

*Source: Primary Data, 2011*

The table above shows that of the 5 workers in the wall building at Usindo I Fatumeta, Aimutin Dili. It demonstrates that workers with a low level of education are aware of the advantages of wearing personal protective equipment (PPE).

**Religion**

| No. | Respondent Number | Religion |
|-----|-------------------|----------|
| 1.  | 01                | Catholic |
| 2.  | 02                | Catholic |
| 3.  | 03                | Catholic |
| 4.  | 04                | Catholic |
| 5.  | 05                | Catholic |

*Source: Primary Data, 2011*

The table above shows that of the 5 workers in the wall building at Usindo I Fatumeta, Aimutin Dili, all of them are Catholic.

**Work**

| No. | Respondent Number | Work |
|-----|-------------------|------|
| 1.  | 01                | Private |
| 2.  | 02                | Private |
| 3.  |                   | Private |


The table above shows that of the 5 workers in the wall building at Usindo I Fatumeta, Aimutin Dili, it shows that all of them work in the private sector.

**Occupational health and safety of employees at the AUTO VISION company**

| No. | Respondent's Answer | Number of Respondents | Percentage (%) |
|-----|---------------------|-----------------------|----------------|
| 1.  | Strongly agree      | 5                     | 100%           |
| 2.  | Agree               | 0                     | 0%             |
| 3.  | Do not agree        | 0                     | 0%             |
| **Total** |                    | **5**                 | **100%**       |

*Source: Primary Data, 2011*

Employee health and safety issues are considered very important by the workforce. Questionnaire analysis showed that the number of 5 respondents chose the answer strongly agree with a percentage level of 100%, while for the answers agree and disagree were 0 respondents with a percentage level of 0%.

**Occupational health and safety in the AUTO VISION company's work environment**

| No. | Respondent's Answer | Number of Respondents | Percentage (%) |
|-----|---------------------|-----------------------|----------------|
| 1.  | Strongly agree      | 5                     | 100%           |
| 2.  | Agree               | 0                     | 0%             |
| 3.  | Do not agree        | 0                     | 0%             |
| **Total** |                    | **5**                 | **100%**       |

*Source: Primary Data, 2011*

The health and safety of employees are considered very important in the work environment by the workforce. Questionnaire analysis showed that the number of 5 respondents chose the answer strongly agree with a percentage level of 100%, while for the answers agree and disagree were 0 respondents with a percentage level of 0%.

**Occupational safety and security as the main means for preventing losses for the workforce of employees at the AUTO VISION Company**

| No. | Respondent's Answer | Number of Respondents | Percentage (%) |
|-----|---------------------|-----------------------|----------------|
| 1.  | Strongly agree      | 5                     | 100%           |
| 2.  | Agree               | 0                     | 0%             |
| 3.  | Do not agree        | 0                     | 0%             |
| **Total** |                    | **5**                 | **100%**       |

*Source: primary data, 2011*
The issue of employee safety is very important for the workforce and the community around the company because the main target of work safety is the work environment and is technical. The results of the questionnaire analysis showed that the number of 5 respondents who chose the answer strongly agree with a percentage level of 100%, while the answers agree and disagree were 0 respondents with a percentage level of 0%.

| No. | Respondent's Answer | Number of Respondents | Percentage (%) |
|-----|---------------------|-----------------------|----------------|
| 1.  | Strongly agree      | 5                     | 100%           |
| 2.  | Agree               | 0                     | 0%             |
| 3.  | Do not agree        | 0                     | 0%             |
| Total|                      | 5                     | 100%           |

*Source: Primary Data, 2011*

The use of personal protective equipment (PPE) is very important for workers to prevent work-related accidents. It is seen from the results of the questionnaire analysis above shows that the number of 5 respondents who chose the answer strongly agree with a percentage level of 100%, while for answers agree and disagree are 0 respondents with a percentage level of 0%.

**Discussion**

Based on the results of research conducted at Auto Vision Aimutin, Dili. It is obtained an overview of the hazards that exist in the work environment if the workers do not use PPE when doing work. To maintain the health and safety of the workforce, the Constitution of the Democratic Republic of Timor-Leste, Article 50 “Right to Work”, Paragraph 2 explains that workers have the right to security and cleanliness at work, the right to pay, the right to rest and the right to vacation. *Lei do trabalho* Article 20, A. Employers provide jobs with good working conditions; from a physical and moral point of view, in particular, concerning occupational health, hygiene, and safety. E. Prevent the risk of occupational diseases and accidents, providing workers with the necessary information and tools for prevention. G. Treat workers with respect and fairness, not paying attention to honor, good name, public image, private life, and dignity.

Looking at the results of the research above, there are 3 important points discussed here.

**The importance of employee health and safety**

Based on the results of the research above, all workers answered that occupational health and safety (K3) is very important for them. Occupational safety and health of workers must be prioritized or prioritized and taken into account so that workers feel there is security for the work they do, whether risky or not. According to Adia (2010), safety and health insurance can make workers feel comfortable and safe in doing a job, to minimize or even realize zero accidents and occupational diseases.
In carrying out activities at the AUTO VISION company, there are 5 important K3 elements, namely Safety and Health Guarantee, K3 training, personal protective equipment, workload, and working hours.

In carrying out the work in the field, it is found that there is no training on K3 and the company provides but the workers do not want to use PPE. Therefore, the researcher sees that the risk for the workforce is very high. This requires intervention from both the company and the government to prevent or reduce accidents due to work in the work environment and there must be sanctions for those who do not comply with the rules on occupational health and safety.

According to Ivana et al (2014), occupational safety and health is important factor in the implementation of company activities. Every worker will work optimally if there is a guarantee of occupational safety and health. The existence of a guarantee of occupational safety and health is an obligation that must be carried out by every company to its workers. Occupational safety and health are closely related to efforts to prevent accidents and occupational diseases and have a reach in the form of creating a society and work environment that is safe, healthy, and prosperous, as well as efficient and productive.

Dwiari and Muliawan (2019) explains that an occupational accident is an incident or event that originates from or occurs in a series of jobs that results in fatal or non-fatal injuries. The Joint Industrial Safety Council - ILO said that three main factors contribute to workplace accidents, namely:

1) Technical Equipment: For example, inadequate or incorrectly designed equipment can lead to unexpected events that ultimately lead to accidents
2) Working Condition: Working conditions can affect workers indirectly and therefore can also cause accidents. These factors include the chaos of the workplace, noise, temperature, ventilation, and lighting
3) Human: The performance of employees can increase the risk of accidents. Consequently, all work must be planned with the worker's point of view in mind. The entrepreneur or the head of the work unit is the main person in charge of planning and structuring the workplace.

Occupational health and safety are parts of public health which is related to all work related to potential factors that affect the health of workers. Occupational hazards, like other environmental health problems, are acute or chronic (Transient or ongoing) and their effects may occur immediately or may last a long time. The effect on health can be direct or indirect. The health of the working community needs to be considered because, in addition to causing disturbances in productivity levels, the health of the working community can arise as a result of their work.

**Occupational health and safety needs to be implemented in the work environment**

Based on the results of the research above, it is explained that the importance of implementing or implementing occupational safety and health (K3) is a form of effort to create a safe, healthy workplace, free from environmental pollution so that it can reduce and be free from work accidents and occupational diseases which can ultimately lead to occupational safety and health, improve work efficiency and productivity. A work environment is a place where people carry out activities.
In the work environment, it is necessary to implement a protection system for workers and construction services to minimize and avoid the risk of moral and material losses, loss of working hours, as well as human safety and the surrounding environment which can later support effective and efficient performance improvements. This shows that the company must protect its employees from problems with the employee's body condition, because if the employee's body condition is healthy then they can work well (Yuantari & Nadia, 2018).

According to Cooper (2001) states that 80-95% of all work accidents are caused by unsafe behavior so it is difficult to control properly. The opinion of Cooper (2009) is per the research results of the National Safety Council (NSC) (2011) which states that 88% of work accidents are caused by unsafe behavior. While 10% of work accidents occur due to unsafe conditions and 2% of unknown causes. In addition, DuPont Company (2005) argues that the majority of accidents in workers occur due to unsafe behavior, which is 96%. Meanwhile, 4% of accidents in workers are caused by unsafe conditions.

The process of implementing an occupational health and safety (K3) program is implemented with the aim that the application of K3 in a company can run effectively, to create a safe situation and also safe actions from workers such as obeying regulations for using Personal Protective Equipment (PPE) and also regulations other.

Safety and health in the workplace and a healthy work environment are valuable assets for individuals, society, and the country. Individuals, communities, and countries need to improve their quality of life. This is influenced by occupational safety and health (Baylina et al., 2018). Occupational health and safety and work-related illness can be reduced by obeying workers in using PPE. It is hoped that the regulations that have been agreed upon by the company can be complied with by workers to reduce the risk of work accidents.

**Benefits of Using Personal Protective Equipment**

The use of personal protective equipment is the last alternative to prevent work accidents. The use of personal protective equipment in the workplace is adjusted to the exposure to hazards encountered in the work area. For this reason, the use of personal protective equipment is very important in the prevention of work accidents. Work accidents can happen to every worker in doing work, because a work accident is an event or event that is undesirable to humans, damages property, or losses to the process in a job (Akiyama et al., 2020).

Workers who do not use personal protective equipment, goggles, helmets, shoes, and gloves have also experienced work accidents. This is because workers often do not use PPE when doing work at the AUTO VISION Company. According to some workers, for example, the glasses they use are easily fogged up, so some workers think that using personal protective equipment goggles at work is uncomfortable because they think it interferes with work productivity.

The maintenance of personal protective equipment is carried out by each worker, although it is only limited to storing personal protective equipment in a locker provided by the company, while personal protective equipment stored by the company is provided in a special room. Personal protective equipment is maintained following the maintenance procedures of each personal protective equipment. With proper maintenance procedures, the condition of
personal protective equipment will be in good condition and not easily damaged, so that damage to personal protective equipment due to improper care can be reduced.

In using PPE, Setiyowati (Setiyowati, 2010) said that both workers and company owners must know and understand the function of PPE, as follows:

1) Head protection: A safety helmet is a protective headgear provided to all workers. This safety helmet must be worn by everyone at work or in the factory area. The safety helmet used has a different color, according to the color that has been determined by the company. The distribution of colors is adjusted to each. The distribution includes:
   A) Red: For the fire department
   B) White color: For production (Forklift operators), practice visitors/guests.
   C) Blue: For the safety part.
   D) White: For contractors.

The use of safety helmets properly by the workforce, is a regulation that requires the use of safety helmets for workers and other people in the factory area. And with the awareness of yourself to protect yourself from falling objects.

2) Eye protection tool: Used by workers during labor and serves to protect the eyes from powder and liquid. In using safety goggles, they feel more comfortable because the workers find it simpler, the provision of safety goggles is very adequate because it is PPE that must be used when entering the work area or environment.

3) Hand protective equipment: The hand protective equipment used is rubber gloves which are used in production process work and chemical leaks. These work workers always use these gloves when doing their work.

4) Respiratory protective equipment: Mask (Must be worn while in the factory area and used by every worker when doing work) and dust respiratory (The use of dust respirators is used when workers are doing their jobs and is used by workers).

5) Foot protection shoes: Safety shoes include complete work clothes and are given when workers get work clothes every year. The use of these shoes has been carried out properly by the workforce because apart from being comfortable, the workers also already know the importance of using safety shoes.

6) Personal protective equipment: Work clothes are in the form of wear packs used by workers, especially in the production process. The use of these work clothes prevents potential hazards in the work environment.

Personal protective equipment is available in the work environment, because with the presence of personal protective equipment employees will feel safe and avoid work-related accidents and also avoid work-related diseases, examples of pain that employees usually feel are horrific coughs at the waist and headaches. Workers who do not comply with the use of PPE can experience accidents at work or work-related illnesses such as organizational chaos, damage, abnormalities, complaints, sadness, disability, and death.

Based on the standard, every worker is required to use PPE both for work that is dangerous or not. It aims to protect workers from workplace accidents and diseases that arise as a result of work. However, not all workers are aware of the importance of using PPE when they work. The majority of workers still think that if they have not had an accident or have been sick due to work, their awareness of compliance with the use of PPE is still lacking. In this
case, the company has provided the PPE needed to protect its workers. However, there are still workers who do not comply with the use of PPE (Nugraheni, 2011).

CONCLUSION

From the descriptions that have been put forward by researchers, it can be concluded that Personal Protective Equipment (PPE) is a set of tools used by workers to protect all or part of their bodies against the possibility of potential hazards in the workplace or work accidents. PPE is also a piece of equipment that must be used when working according to work hazards and risks to maintain the health and safety of the workers themselves and those around them.

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