

Implications of Indonesian Occupational Safety and Health Management System Award to the Safety Culture

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Abstract. An increase in work accident rates by 20% at the end of 2017 ironically accompanies the increasing number of awardee OSHMS certification in Indonesia. This paper aimed to analyze the policy of OSHMS award and its implication to the safety culture in Indonesia. This study used a literature review method with several sequential steps. The results indicated that actually, the high rate of workplace accidents was not the only factor of safety culture implementation and even could be a positive indicator of increasing awareness of reporting in OSHMS implementation. Nevertheless, Indonesia still needs to enforce the law, especially for violators of OSHMS regulations. Besides, it is necessary to approach early education to instill safe behavior and pay more investment for prevention costs to build the safety culture as well as developed countries.

Keywords: Occupational Safety and Health Management System (OSHMS), Policy, Safety Culture, Work Accident Rate

1 Introduction

The industrial revolution was inseparable from the history of occupational safety and health (OSH) development in the world. Industrial development had the side effect of the new risks emergence that was not present in traditional jobs. The industrial revolution in the 18th century had an impact on environmental pollution due to petroleum-fueled engines which caused various work-related diseases.

Furthermore, the trends of slavery affected human rights violations due to the low wages of workers with time and high workloads being black spots despite productivity in the industrial sector and the economy improved brilliantly. The industrial revolution also brought the next challenge, namely the emergence of electric-powered machines which became a danger because of imbalanced with the skills of workers to keep up with technological developments, so that many work accidents due to unsafe acts. This condition was still valid even though the industry continues to grow where computing systems have created various technologies, but the potential for hazards is also increasing for workers' health and safety due to complex machine operations [1].

The social problems in the industrial revolution enforced to laws governing labor. In 1919 the International Labor Organization (ILO), an agency of the United Nations to maintain the

labor rights and obligations, was formed. The world appreciates and gave the Nobel Peace Prize in 1969 to the ILO's efforts to protect labor rights and were. Several countries in the world such as the United States followed by ratifying the OSH Act of 1970, United Kingdom with the Health and Safety Act in 1974, Federated States in Australia formed the National Occupational Health and Safety Commission in 1985, Korea with Korean Occupational Safety and Health Agencies in 1989, and so on [2].

Indonesia itself became a member of the ILO in 1950. Nevertheless, previously Indonesia had a Work Law in 1948 which referred to regulations during the Dutch colonial period which specifically regulated it such as the Steam Law (*Stoom Ordonantie*), the White Tin Act (*Loodwit Ordonantie*), Industrial Rail Act (*Baan Ordonantie Industry*) and so on [3]. Indonesia had Law No. 1 of 1970 which became a reference for all regulations related to work safety onward. The basic philosophy of implementing OSH in the workplace in Law No. 1 of 1970 was protecting workers' safety from accidents and diseases due to work with preventive efforts to promote safety culture. One of the efforts to promote safety culture was implementing the Occupational Safety and Health Management System (OSHMS) in companies [4]. In 1996, The Ministry of Labour established a regulation No 5 of 1996 concerning of OSHMS and furthered The Government Regulation No 50 of 2012 concerning the application of the OSHMS.

Based on the Government Regulation No 50 of 2012, the company which had 100 workers or who had the high potential risk of work had to apply the OSHMS. The Ministry of Manpower would give a certificate of OSHMS to appreciate the implementation of occupational safety and health in the company. OSHMS aimed to protect Indonesian worker from work accident and occupational disease to encourage their production. Year by year, the number of companies who get a certificate of OSHMS in Indonesia was increased. Ironically, the work accidents rate was still high and increased by 20% at the end of 2017 [5]. The high rate of work accidents was believed to be closely related to the application of safety culture [4]. So, this paper would analyze the policy of OSHMS award by the government and its implication to the safety culture in Indonesia.

2 Method

This paper used a literature review method with several sequential steps. We present the previous studies highlighting case studies of OSHMS implementation and its implication in Indonesia. It is followed by the research model and hypothesis development section, where we develop related argument concerning the impact of OSHMS award to the safety culture in Indonesia. Then we carried out a qualitative empirical study in which interviews were conducted with Safety Officer representatives from 8 companies in Indonesia to gain a better understanding of the problem of implementation OSHMS and safety culture of those companies. The companies were from the construction sector, the oil and gasses sector, manufacture sector, OSH training service sector, and the government. Those companies were different, some of them had applied OSHMS well, and others had not yet. But they had met the qualifications to implement OSHMS by government regulation No. 50 of 2012. We also conducted a literature review of normative OSH regulations in Indonesia, USA, Australia, and Korea and described the implementation of OSHMS at those countries. Based on the comparison, we got a conclusion to solve the OSHMS problems with adopted some regulation and hopefully it can be applied in Indonesia.

3 Result and Discussion

3.1 Occupational Safety and Health Management System (OSHMS)

Indonesia has adopted one of the most comprehensive law on Occupational and Safety Health Management System at large or high-risk enterprises. The regulation stipulates that "Any company employing 100 employees or more, or containing harmful potential issued due to process characteristic or production material which may cause an occupational accident such as explosion fire, contamination, and occupational disease is obligated to implement an OSHMS".¹

Moreover, the passed Manpower Act (Law No. 13, 2003) refers to OSHMS (Article 86 and 87). First, the Act provides that every worker is entitled to protection against safety and health hazards, protection against immorality and indecency, and treatment that respects human dignity and religious values. Second, it states that every enterprise must apply an OSHMS, to be integrated into the enterprise's general management system. The OSHMS application rules are now being determined and specified for forthcoming Government Regulations.²

In accordance with The Work and Safety Act (Law No. 1, 1970), the Department of Manpower and Transmigration has a responsibility for setting up the national OSH Policy to ascertain the universal and smooth implementation in Indonesia. On the other hand, it should be noted that occupational safety and health regulations are also included in laws such as the Health Act, as well as regulations related to mining, nuclear power, oil and gas, industry etc under the jurisdiction of such Government agencies as the Department of Health, the Department of Mining and Energy which is responsible for mining inspection, and the Department of Industry.

Referring to the regulation of the Minister of Manpower No. 5 of 1996, the Occupational Safety and Health Management System (OSHMS) was a part of the overall management system includes the organizational structure, planning, implementation, procedures, assessment and maintenance of occupational safety and health policies in the context of controlling risks related to the safety culture at work in order to create a safe, efficient and productive workplace. OSHMS aimed to protect the worker from work accident and occupational disease probability so that the workers achieve prosperity and high productivity. Implementation of OSHMS has direct and indirect benefits. The immediate benefits are reducing work hours lost due to workplace accidents, avoiding material losses and lives due to workplace accidents and creating a workplace that is efficient and productive. While the indirect benefits are increasing the market image of the company, establishing a harmonious relationship for employees and the company, and the maintenance of the machine and equipment is getting better.

The implementation of OSHMS is regulated more detailed into Indonesian Government Regulation No 50 of 2012, and it is assessed in an audit process³. After an audit process, the Minister of Manpower will give a certificate of OSHMS to appreciate the implementation of

¹ Regulation of the Department of Manpower and Transmigration No: PER.05/MEN/1996 on Occupational Safety and Health Management System.

² The act of the Republic Indonesia (No.13, 2003) Concerning Manpower, Unpublished and Unofficial English Translation by the ILO Jakarta, 2003.

³ Indonesian Government Regulation No 50 of 2012 on Implementation of Occupational Safety and Health Management System, articles 16 and 17

occupational safety and health in the company. While OSHMS in international scope refers to the Occupational Health and Safety Assessment Series (OHSAS) 18001. Both of them have the same principle but only differ widely in scope. The British Standard Institute in 2007 published OHSAS 18001. OHSAS 18001 was designed to be compatible with ISO 9001 concerning the Quality Management and ISO 14001 concerning the Environmental Management System. OSHMS integrate OHSAS 18001, and it will be helpful if the company need to design, implementation and operation of integrated environmental quality OSHMS [4].

The difference between these two audits in addition to their scope are OSHMS certification based on Indonesian Government Regulation No 50 of 2012 is mandatory while OHSAS 18001 is voluntary. Surveillance audit is necessary for OHSAS 18001 but not in Indonesian Government Regulation No 50 of 2012. It is a weakness of Indonesia. Indonesian OSHMS still focused on the documentation of the managerial system. The OSHMS implementation in a developing country is still in the early stages [6]. Besides, OSHMS certification is less helpful in promoting OSH compared to ISO series, OHSAS, KOHSA (Korea) certification, which also uses a private certification body. Because of the mandatory, OSHMS certification in Indonesia still business oriented, not intending to improve the safety culture of the worker. And the main problem is the low awareness of implementing the safety culture in the company because of the classic problem of cost [7].

3.2 Safety Culture

A safety culture is an organizational culture that attaches great importance to security beliefs, values and attitudes and most people in the company or at work share these beliefs. In a strong safety culture, OSHA defines that everyone feels responsible for security and pursues it daily; employees go beyond the "call of duty" to identify unsafe conditions and conduct and intervene to correct them [8]. Poor safety culture has contributed to many significant incidents and personal injuries and can influence the safety results as well as the safety management system of an organization itself.

Implementing the safety culture in the company is firstly ensure health and safety responsibilities are identified, including responsibilities set out in health and safety policy. Secondly, build an Occupational Safety and Health Committee Development who are actively and broadly involved in health and safety management system activity. Thirdly, have a planned approach to hazard identification and risk assessment. Fourthly, give high priority and consistent attention to control of hazards at the source. Fifth, have a comprehensive approach to workplace inspections and incident investigations. And the last, have developed purchasing systems [9].

Although the application of safety culture is believed to reduce potential hazards for workers, there is argumentation that safety culture is a messy concept. It seems like there is a failed attempt to improve the organization, whereas the real concept of safety culture is profound and can lead to significant improvements. Safety culture is how people talk to each other and how that talking impacts safety behaviors. Safety behavior is through all levels of the organization and not necessarily top-down or bottom-up. Safety management systems are just formalized methods of communication [10].

Right or wrong about safety culture concept, the implementation of OSHMS is believed to be able to reduce potential losses for both workers and companies [7]. Even it is not simple to implement, but there are six main strategies to build a safety culture in the company namely accountability, engagement, recognition, motivation, appreciation, and credibility [9].

3.3 Occupational Safety and Health Problem in Indonesia

The work accidents rate (**Fig. 1**) in Indonesia is still high and increased by 20% at the end of 2017 [5] while the number of companies who passed OSHMS certification is also increased. The Ministry of Manpower recorded 1.220 companies had got OSHMS certification at the end of 2017. It increased by 40% than in 2016 (732 companies). Furthermore, the Ministry of Manpower also gave zero accident certification to 901 companies, and it increased 5,8% than 2016 (848 companies). The high rate of work accident seems contradicts to implement OSHMS. Theoretically, a decrease in work accident rates should accompany the increasing number of companies receiving OSHMS awards.

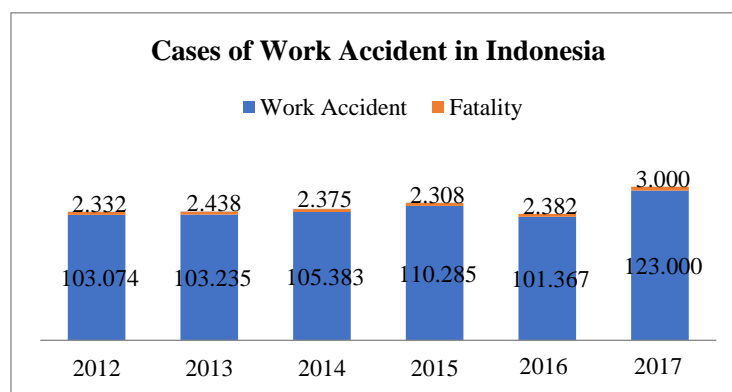


Fig 1. Cases of Accident in Indonesia [5]

There is an argument that increasing of work accident rate can be a positive indicator of increasing awareness for reporting, which is one of OSHMS clause. The literature review of previous studies resulted in a conclusion that a positive linear relationship between the implementation of OSHMS and a reduction in work accident rates has not been achieved, especially in developing countries [11]. Leading and lagging indicator can assess OSH performance in the company. Leading indicators are pre-incident measurements, as opposed to lagging indicators, which are measurements collected after an incident occurs. A key competent of leading indicators is that they are measurements of safety events or behaviors that precede incidents and have a predictive quality. While the work accident rate is one of a lagging indicator. The high work accident rate still became a problem for OSHMS achievement.

Next problem, even though the company is required to implement OSHMS, but there is no incriminating sanction if the obligation has not complied. Criminal law is enforced to someone only if an accident has occurred and causes harm to others. There are no penalties for companies that do not take accident prevention measures, except for losing OSHMS certificates. The OSHMS certification becomes a prerequisite to get a project from the Indonesian government. So many companies are vying to register for the OSHMS audit. The understanding of OSHMS is only understood by management, not to technical workers. Most workers do not understand their rights to obtain their safety protection, so it makes the safety culture not implemented. It is still seen from the economic aspect and has never been seen from a moral approach. The worker is still placed as a production factor in the company, not yet set as a business partner.

The implementation of OSHMS supervision in companies in Indonesia has not been well coordinated by various parties and is still dominated by the Ministry of Manpower. It only resolves the problem downstream but does not prevent it from upstream. Safety culture should be instilled early by collaborating with the education providers in Indonesia. Habituating a safety culture should not apply in the workplace only but also in various environments, because there are always work activities in every environment. Education about safety culture can also be invested through the entertainment sector with promotional media. It will strengthen the memory of knowledge which will change people's perceptions of the importance of a safety culture. Positive perceptions about the safety culture will build a character who cares about self-safety and people safety around.

The last but not least, the low commitment of company in Indonesia as a developing country on implementing OSHMS is because of the classic problem of cost. Even though, this is the opposite of the company's mindset in developed countries. The companies in the developing countries believed that the total cost of occupational accidents is higher than the prevention cost. The occupational accident cost is consist of the loss of human resources that occurs when employees do not take part in production processes permanently or temporarily, besides losing material due to workplace accidents. The implementation of OSHMS is not an economic burden, but a business opportunity. Indeed, the countries with the highest professional security are the countries with the highest competitive power. It is increasingly realized that providing healthier and safer jobs increases labor productivity and job satisfaction and leads to stronger balance sheets. Workplace safety can eliminate a lot of adverse effects (e.g., rising economic costs or unproductive work due to the increased work stoppage, absenteeism and turnover due to health and social relations wore out employees) [7].

3.4 Case Studies of Safety Culture Implementation in Developing Countries

During the second half of the nineteenth century, the Australian colonies and state adopt the UK model of OSH regulation. OSH professional in Australia divides the area of OHS law, particular injuries or risks, to two separate actions. Improving safety in the workplace through obligations imposed on employers to safeguard workers' safety, and revoke awards when these obligations are violated. On the other hand, criminal law is prepared by punishing those who cause safety risks even before an accident occurs. Far from that, compliance with each jurisdiction's OSH laws is monitored and enforced by that jurisdiction's OSH regulator in Australia [12].

United States of America (USA) built a system to conduct the OSHMS regulation in an organization named the Occupational Safety and Health Administration (OSHA). OSHA has the power to provide its standards subject to specific restriction and enforcement authority from its adjudicative function. OSHA also can conduct random inspections of the workplace in exceptional cases. The centralization of authority in the hands of OSHA is a clear choice on behalf of the USA to control the workplace environment through governmental instrument [13].

In Brazilian organizations, the critical success factor in the implementation of OSHMS is the constitution between top management and employees. In order to find economically viable and practical solutions of OSHMS implementation, it is necessary to have a plan that allows top management and employees to participate. The cooperation of management and employees is by acting in a defensive capacity and contributing to the continuous improvement in safety and working conditions.

Promoting transparent communication and motivating employees to build good collaboration to perform safety behavior at an optimum level. Safety behavior is also supported by training and improvement programs to increase their professional qualifications [14].

In Korea recognized the concept of action learning. Action learning made a safety cultural transformation. Action learning is an educational process which involves taking action and reflecting on the result with the support of the team. The key features of action learning are the actual implementation of solutions not just 'talking' about things. The leadership was the most crucial factor in the successful change of safety culture. As long as the leader exemplifies the discipline in implementing safety culture, the middle management and the employees will follow the habit. Leadership is not only in terms of work but also for education. So that, it is obligatory not only to oversee the implementation of OSHMS but also as an education provider. However, the process of changing behavior to the habit of being safety culture still requires a long time. There are also many examples of failures in trying to change the safe behavior of workers in Korea [15].

4 Conclusion

So far, the appreciation of OSHMS implementation has not shown positive implications for the change in safety culture in Indonesia. It is indicated by the still high rates of workplace accidents and low worker participation in implementing OSHMS. But workplace accidents as a lagging factor cannot be the only indicator of OSHMS achievement, because leading factors should also be considered. The safety culture problem that has not been established in Indonesia is caused first because the OSHMS implementation regulations have not yet firmly sanctioned companies that do not comply. The second is the lack of preventive efforts in the form of education to instill a safety culture in the community. And the third factor of prevention cost is still high for companies in developing countries. If Indonesia wants to advance safety culture like in developed countries, then management reforms should be carried out to implement OSHMS and enforce labor law. In addition, good coordination is in addition to the supervisor of OSHMS implementation as well as educational providers to instill the habit of behaving safely from an early age. And the last is the courage to invest in increasing prevention costs because it is proven to increase productivity which has implications for the welfare of the community.

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