

Occupational Safety and Health (OSH) in Malaysian Small and Medium Enterprise (SME) and Effective Safety Management Practices

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ABSTRACT

Occupational safety and health (OSH) is an issue inseparable from most workplace in Malaysia particularly high-risk industries such as manufacturing and construction. Small and Medium Enterprise (SME) in Malaysia is in dire needs to implement OSH properly as Che Man (2010) estimated that around 80% of workplace accidents that occurred are accounted to SME. More attention and assistances must be extended to SME to help them in the implementation of OSH as their apparent lack of financial resources and expertise hamper their ability to effectively implement OSH. SME can rely on several management practices such as safety training, employee participation, safety rules, and supervisory support in order to make their workplace safer for employees to work in. A review of literature on the four management practices and a brief description on the OSH scenario as well as SME in Malaysia are discussed. SME should make use of the 4 management practices as they were found to be effective in other settings.

Keywords: Occupational safety and health, management practices, SME, safety management practices.

1. INTRODUCTION

Malaysia adopted a self-regulation approach in regulating Occupational Safety and Health (OSH) in the workplace. This means that employers and employees shoulder most of the responsibilities to ensure the safety of their own workplace. However, the Occupational Safety and Health Act (OSHA) 1994 which provides the legal framework for OSH regulations places a huge responsibility on the employer to provide a safe and healthy workplace for all employees. Specifically,

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Section 15 of the Act states the general duty of employers self employed persons to their employees:

It shall be the duty of every employer and every self-employed person to ensure, so far as is practicable, the safety, health and welfare at work of all his employees.

In the spirit of the Act, employers need to make sure the safety, health and overall welfare of employees during work, but to an extent that it is practicable. The question of practicability is influenced by the risks involved, knowledge about the risks and methods to reduce it, the availability and suitability of the methods as well as the costs to implement those methods (DOSH, 2006). This clause in the Act suggests that even though the responsibility of providing a safe workplace rest mostly with employers, they only need to fulfill that responsibility to an extent that they are able to do it within their own capabilities.

Apart from employer, employees also have their own duty to ensure their own safety at work. Section 24 of the Act provides the clause:

(1) It shall be the duty of every employee while at work—

(a) to take reasonable care for the safety and health of himself and of other persons who may be affected by his acts or omissions at work;

(b) to co-operate with his employer or any other person in the discharge of any duty or requirement imposed on the employer or that other person by this Act or any regulation made thereunder;

(c) to wear or use at all times any protective equipment or clothing provided by the employer for the purpose of preventing risks to his safety and health; and

(d) to comply with any instruction or measure on occupational safety and health instituted by his employer or any other person by or under this Act or any regulation made thereunder.

From the clauses, employees must take reasonable effort to care for their own as well as their colleagues' safety while at work and cooperate with employers to ensure workplace safety. From the clauses of the Act, it is clear that they were designed to make employers and employees work together in the regulation of OSH in the workplace. Although there is legal requirement to ensure OSH is well taken care of in the workplace, accident rate in the workplace remain high. Even the public sector is not making enough effort to implement OSH as there is 70 percent of government department and agencies that did not comply the Occupational Safety and Health Act 1994 (Hussain, 2009). Among the accidents that happened in the workplace, Tuan Haji Abu Bakar Che Man (2010) estimated that 80 to 90 percent are from Small and Medium Enterprises (SMEs). This shows us that the implementation of OSH in SMEs is not receiving the full attention from the management. SME may be facing problems that hinder them

from effectively implementing OSH. Therefore, the problems faced by SMEs in the implementation of OSH must be explored in order to help them in this particular area.

2. OSH IN MALAYSIAN SMES

SMEs play an important role in the economic development of Malaysia. In the period from 1996-2005, SMEs have experienced a tremendous average growth rate of 5.3%. The total value of production to the economy has also increased from RM 51.5 billion to RM 81.9 billion in the same period (SME, 2005). Realising the vital contribution of SMEs to the economy, the Malaysian government has included SMEs into the national economic development agenda. In order to effectively give assistance to SMEs, a clear definition of SMEs is a must. Malaysia adopted a common definition common definition of SMEs to facilitate the identification of SMEs in the various sectors and sub-sectors. The categorisation of SME is shown in the table below:

	Micro Enterprise	Small Enterprise	Medium Enterprise
Manufacturing, Manufacturing-Related Services and Agro-based industries	Sales turnover of less than RM250,000 OR full time employees less than 5	Sales turnover between RM250,000 and less than RM10 million OR full time employees between 5 and 50	Sales turnover between RM10 million and RM25 million OR full time employees between 51 and 150
Services, Primary Agriculture and Information & Communication Technology (ICT)	Sales turnover of less than RM200,000 OR full time employees less than 5	Sales turnover between RM200,000 and less than RM1 million OR full time employees between 5 and 19	Sales turnover between RM1 million and RM5 million OR full time employees between 20 and 50

Source: Small and Medium Industries Development Corporation (2009)

With a comprehensive definition and as well as commitment from the government to develop SMEs, the future of SMEs in Malaysia seems to be bright. However, one area that Malaysian SMEs still lack behind is OSH. As mention in the section before, a majority of workplace accidents comes from SMEs. Workplace accidents cause a lot of problems for SMEs such as loss of production time and compensation cost. These problems can potentially hamper the development of SMEs. Therefore, in order to further develop SMEs, the

accident rate must be reduced. This can be done with the implementation of OSH in the workplace as employees will be more aware of their own safety as well as the others' with OSH in place.

However, SMEs in Malaysia faces many challenges in implementing OSH as well as general challenges that may directly or indirectly hamper their ability in this aspect. A majority of SMEs lacks financial resources and sound management capability (Lee, 2003). Most of them are family business with no clear structure and division of responsibilities. Financial resources are also limited with capital from the owner himself and family members. These two factors have a major impact on the ability of SMEs to effectively implement OSH. Financial resource is a vital element for SMEs (and any companies) in the implementation of OSH. Safety measures such as setting up an OSH documentation system, safety training, and establishing an OSH department in the organisation needs considerable investment from the organisations. SMEs with limited capital, often invest on things that will increase their production and generate greater profits. Management in SMEs perceive that investment in production is more important as it will strengthen their footing and survivability. As such, OSH is neglected because it cannot translate into direct gain for the company or help in the survival of the company (Lahm, 1997; McKinney, 2002). Apart from that, management expertise is also important in the implementation of OSH. Knowledge such as accidents investigation, risk assessment and safety audit is needed if OSH was to be implemented effectively. SMEs often lack this kind of capability as the managements are not aware of it or ignore it as they see this as unimportant. Furthermore, with no clear division of responsibilities and often a "one-man show" operation (Lee, 2003), SMEs do not appoint a specific officer in the company to handle OSH. Thus, OSH does not receive the attention from management in SMEs.

Apart from resources and expertise, legislation constraint is also another problem for SMEs in the implementation of OSH. In Malaysia, OSH is governed by the Occupational Safety and Health Act (OSHA) 1994 which does not differentiate between large corporations and SMEs (Lee, 2003). The legislation was designed with large corporations in mind and most of the companies that abide to the legislation are large multinationals (Hazlina, 2007). SMEs are constrained by the legislation that was supposed to help them in the area of OSH. This is because SMEs do not have the resources nor the scale to cope with the requirement stipulated in OSHA. SMEs are different from large multinational companies in so many ways and one of them is the size. SMEs cannot compare to multinationals corporations (MNCs) when it comes to implementing OSH because MNCs enjoy economy of scale due to their size. MNCs can invest in OSH and spread the costs to a large number of employees. In SMEs however, the costs can only be spread to a limited number of employees, worse still for small companies that have less than 10 employees. In another word, size of a company does play an important role when it comes to implementing OSH (Cook, 2007).

In Malaysia, the government uses a self-regulation approach in dealing with OSH. According to OSHA 1994, the employers shoulder most of the responsibilities in managing OSH in the workplace. Employers have to take reasonable measures to ensure employees' safety by preventing accidents in the workplace. Although this concept is good, it still has apparent weaknesses. SMEs are still struggling to comply with even the minimum requirements of the legislation. This happens because the workplace is constantly evolving with the introduction of new technologies and methods of working. As a result, new occupational diseases and hazards appear and threaten the well-being of employees. By relying on self-regulation approach, it is hard for SMEs to get the much needed support for them to be aware of the new hazards and other issues surfaced. Although at present the Department of Occupational Safety and Health (DOSH) has set up a state office in every state, the large number of SMEs is still a major challenge for DOSH to reach them effectively.

Studies have shown that effective enforcement of OSH legislation is important to the implementation of OSH in SMEs. Singapore, which has a very low rate of workplace accidents in the region, relies on strict enforcement of safety standard and other stipulation in the Employment and The Factories Acts to achieve safety in the workplace (Koh & Jeyaratnam, 1998). Furthermore, enforcement in the form of inspections by the relevant authorities on the workplace can help to reduce accidents by forcing employers to adhere to safety standard (Cooke & Gautschi, 1981). However, it is very difficult to carry out inspections on SMEs in Malaysia as there are a large number of them in the entire country. It would take a long time and effort to reach every SME in the country. It will also require the government to put in a lot of financial resources and manpower to carry out the inspection. Therefore, inspection is not a practical long term solution considering the sheer number of SMEs in Malaysia and the issue of accessibility.

Although it is hard for the relevant authorities to reach SMEs, the management of SMEs must provide a safe workplace for employees by implementing OSH. Following the self-regulation principle in OSHA 1994, the employers must shoulder this responsibility. In order to do so, management in SMEs can rely on several safety management practices such as providing safety training, allowing employee participation in making safety-related decision, supervisory support and enforcing safety rules in the workplace.

3.0 SAFETY MANAGEMENT PRACTICES

3.1 Safety Training

Training is the process of arming employees with the skills, knowledge, concepts, rules or changing of attitude and behaviour in order to improve their

performance (Naukrihub, 2010). In the perspective of OSH, training equips employees with the necessary skills, knowledge, and to change the attitude and behaviour of employees so that they can perform their tasks in a safe manner. Whether it is to improve risk perception (Cooper, 1995), improve safety knowledge (Tam & Fung, 1998; Cheng, Li, Fang & Xie, 2004) or to increase awareness towards safety issues in the workplace (Gillen et al., 2003), the ultimate aim is to prevent or reduce workplace accidents.

Safety training is essential even for SME as the lack of it is often cited as the reason of workplace accidents (Jaselskis and Suazo, 1993; Aini et al., 2005; Buchanan et al., 2005). The absence of safety training is even more dangerous for SMEs that involve in high risk industries such as business, construction and heavy machinery (Laukkanen, 1999). Employees need to be educated about the hazards that they are facing in their job for them to be aware and take the necessary precautions to avoid accidents. It is the responsibility of the management in SMEs to provide safety training to their employees as part of the OSH program designed to lower accident rate.

Safety training has several benefits that will contribute towards the implementation of OSH in SMEs. Firstly, it will increase the awareness of employees (Gillen et al., 2003). Through safety training, employees will receive exposure to safety issues that affect them in their workplace. As such, they will pay more attention to workplace safety and help in the implementation of OSH. Secondly, employees would gain safety knowledge through safety training (Tam & Fung, 1998; Rowlinson et al., 2003). Knowledge such as the correct way to wear personal protective equipment (PPE) and operating dangerous machineries would decrease the probability of accidents. This will aid in SMEs' efforts to implement OSH in the workplace as employees with sufficient safety knowledge will play crucial supporting roles in doing so. Finally, safety training improves risk perception of employees (Cooper, 1995). With the correct training regarding risk and its management, employees can recognise risk better. They would be able to perceive risky situations and take preventive measures to minimize them. This will also assist in the implementation of OSH in SMEs.

However, management of SMEs cannot implement safety training without giving consideration first to the effectiveness of different training methods. Study has shown that different safety training methods have different degree of participant engagement (Burke et al., 2006). Safety training that is engaging requires the participants to interact frequently with the trainer during the training session. The frequent interactions between the participants and trainer will help in the formation of knowledge in trainee (Burke et al., 2006). SMEs can consider several engaging training methods include interactive video (Zhang, Zhou, Briggs & Nunamaker Jr., 2006) and simulation (Mishra, & Dornan, 2003; Wisborg, Castren, Lippert, Valsson, & Wallin, 2005; Kyrkjebo, Brattebo, & Smith-Strom, 2006; Wisborg, Brattebo, Brattebo, & Brinchmann-Hansen, 2006).

This will enable their employees to gain more safety knowledge at a faster rate and eventually helps to reduce accident rate in SMEs.

The fact that safety training is beneficial to employees and the implementation of OSH, management in SMEs should give more training to their employees. Costs would be a concern but management can consider the various safety trainings and courses available and send their employees according to the needs of their company. The National Institute of Safety and Health (NIOSH) offer a wide range of safety courses and training to various levels of employees. Malaysian SMEs can consider those training courses as they are conducted by an authoritative body of OSH in the country. Furthermore, Malaysian SMEs can apply for training grants from the government to assist them in paying for the courses. This is an important investment as workplace accidents will cost SMEs more money in the form of compensation and lost production time. Besides that, additional measures such as feedback (Komaki et. al., 1980) and post-training evaluation (Aronson and Aiken, 1980) are also important to ensure that the safety training brings the intended benefits to the employees and not go to waste.

Therefore, safety training is a viable management practice that SMEs can use to improve OSH in the workplace. They need too determines the training needs of employees and choose the most suitable safety training methods to boost the safety knowledge of their employees and make the workplace safer.

3.2 Supervisory Support

Apart from monitoring the work progress of their subordinates, supervisors also provide supervisory support to them. It is actually the degree in which supervisor appreciate the contributions given by their subordinate and general concern for their well-being (Kottke & Sharafinski, 1988).

Generally, good supervisory support is credited to improvement in employee satisfaction and performance (Bhanthumnavin, 2003; Steinhart, Dolbier, Gottlieb, & McCalister, 2003; Gagnon & Michael, 2004). This includes employees' safety performance. Supervisors who share a good and trusting relationship with their subordinates will encourage them to perform better (Gagnon & Michael, 2004). Employees will be more confident to point out safety problems and concerns to their supervisors because they know that their supervisors are dependable and willing to listen to their problems. They will have no fear or apprehension to voice out the inadequacy of the organisation to a supportive supervisor. In return, supervisors will make suggestion to the management and take the necessary measures to ensure that the safety problems voiced out by their subordinates are addressed properly. This will directly aid the implementation of OSH in SMEs as supervisors will act as the middle man in letting the top management knows the safety needs of employees and the

management will in turn implement the right measures to fulfill those safety needs.

On the other hand, supervisor can also communicate their own and the organisation's safety view to employees (Leiter & Harvie, 1997). Supervisors will again act as the middle man to inform and explain the safety standard required by the organisation and the measures needed to achieve the standard. This will help in the employees' acceptance of OSH measures implemented by the management as they have trust towards their supportive supervisors. In the long term, better OSH programs can be designed and executed to improve the safety of the workplace (Hoffman & Morgeson, 1999). Therefore, the exchange of view and information between supervisors and their subordinates will lead to the improvement in the implementation of OSH in SMEs as both sides know the expectation and what is required to achieve the goals.

Supervisory support also has a positive effect on Organisation Citizenship Behaviour (OCB) (Chen and Chiu, 2008). OCB is the proactive positive efforts that employees take to improve the organisation (Organ, 1997). Chen and Chiu (2008) found that support by supervisors in the form of appreciation and recognition of their work will decrease employees' job tension and increase their satisfaction. The increase in job satisfaction will drive employees to put in more proactive efforts to improve the organisation including in OSH. Employees will take efforts to identify OSH problems in the organisation and propose solutions to solve the problems. In addition, general consensus in the psychology and medical field indicates that job tension can lead to occupational disease such as high blood pressure and cardiovascular diseases. Thus, reduced job tension would decrease the likelihood of occupational disease among employees in SMEs.

Finally, study (Maierhofer, Griffin & Sheehan, 2000) also found that employees would internalize the safety values of their supervisors. In another word, supervisors act role models to their subordinates. Supervisors who display safe working behaviour such as wearing PPE when working in dangerous conditions will influence their subordinates' behaviour. They will adopt the safe working behaviour and values of their supervisors. Furthermore, safety values of supervisors were found to have an effect on employees' risk perception (Cree & Kelloway, 1997; Arezes & Miguel, 2006; Lauver, Lester, & Le, 2009). Supervisors who stop employees from displaying risky work behaviour and point out risks immediately will allow employees to be more aware of the risks around them and able to recognise risks before accidents happen (Westaby & Lowe, 2005).

It is easier for supervisors in SMEs to provide support to their subordinates given the small number of employees in SMEs. Therefore, Malaysian SMEs must ensure that they hire supervisors that are supportive and willing to help their subordinates so that the implementation of OSH can be more effective.

3.3 Safety Rules

Leplat (1998) defines safety rules as a set of statements that tell employees what actions can be done and cannot be done in order to achieve safety at work. They are used to limit the actions of the employees in order to prevent them from performing actions that may endanger themselves.

Safety rules are developed from informal rules that organisations rely upon at the beginning. Employees know what to do without referring to a set of written rules. For example, a machine operator knows the procedure of starting a machine without referring to a manual because he or she has done it for a long time. However, as the tasks in an organisation became more complicated, formal written rules must be formulated to coordinate the various tasks performed by every employee (Hackamack & Knapp, 1970). Management of SMEs must put safety rules in writing to guide employees' behaviour at work for their own safety.

Study suggests that failure to comply with safety rules is often cited as a factor of workplace accidents (Laurence, 2005). Mascini (2005) has given two good examples of accident that is related to employees ignoring safety rules. First is the incident in a Japanese nuclear power plant in Tokai and the second one is a firework warehouse in Enschede, Netherlands. Both incidents happened in high risk industry and following safety rules and procedures is extremely important. Similarly, safety rules should be enacted and strictly for local SMEs especially for those operating in high risk industries such as heavy machinery, manufacturing and construction. They should take note that the existence and enforcement of safety rules have a positive relationship with workplace safety (decrease number of safety accidents) (Chew, 1988).

However, too much and too restrictive safety rules can have an adverse effect on employees (Reason, Parker & Lawton, 1998). Employees have to constantly worry about safety rules when they perform their tasks. This will cause production to slow down and affect the performance of company. Moreover, employees will purposely take shortcuts to bypass the safety rules in order to achieve tight production goal. Therefore, safety rules designed to protect the safety of employees can backfire if they are too restrictive (Reason, Parker & Lawton, 1998). Safety rules that are supposed to prevent accidents may cause more accidents in this case.

In addition, too much safety rules can cause resentment and dissatisfaction among employees because their freedom of action is severely prohibited (Hale & Swuste, 1998). Employees have to spend a lot of time to study and understand the safety rules. Moreover, safety rules that are too complicated can waste employees' and impede understanding. Management especially in local SMEs should note that not all employees are highly-educated and they might not be able to comprehend the safety rules enforced on them. This will cause resentment among them if they are punished for violating safety rules that they don't fully understand. Therefore, it is advisable for management of SMEs to design clear and concise safety rules but in the same time leave some space for employees to make their own decision where applicable (Hale & Swuste, 1998). It would be an advantage for SMEs to have safety rules as they have a smaller workforce compared with big companies. This means that it is easier for them to get their workers to comply with the safety rules. Any resentment and dissatisfaction towards the safety rules can also be dealt with easily as management can engage in discussion and explain the safety rules to them.

As conclusions, management in SMEs can resort to safety rules to control the behaviour of employees in order to make the workplace safer. They can design safety rules that are suitable to their needs so that they won't pose too many restrictions to the everyday operations of employees.

3.4 Employee Participation

"Participation" is a broad term describing the involvement of employees in certain areas of business in an organisation (Kaler, 1999). The degree of employee participation can be minimal such as enjoying profit sharing or it can be more as complex such as working in an autonomous work group. Management also gives the opportunity to make their own decisions in areas that affect themselves and others in the organisation in an arrangement described as "delegatory participation" (Ariss, 2003). Management found that by involving employees in decision-making, the performance of organisation improves over time. As a result, management gives more power and discretion to employees in a wide range of activities in their organisation as described by Fenton O'Creevy (1998). Employee participation is also extended to OSH. Employee would bring in their unique abilities, skills and knowledge to be utilised in an empowerment-based arrangement to assist management to create a safe working environment (Ariss, 2002).

Early studies in non-business settings such as university (Shaw, 1955; Katzell, Miller, Rotter, & Venet, 1970, Wexley, Singh, & Yukl, 1973) and sport (Veen, 1972) have confirmed the effectiveness of employee participation in improving the performance of the organisation. When employees are allowed to participate in the decision-making process, they will perform better afterwards and show an increase in satisfaction. This is because they will feel less threatened as the

decisions that affect them are made with their input and suggestions being considered (Wexley, Singh, & Yukl, 1973). When the decisions are implemented later, they will be able to perform better in order to achieve the goals management has set.

In managing OSH, management of SMEs can use employee participation as a powerful tool to effectively solicit employees' opinion and input on the various OSH issues they face. The rationale is that OSH does not rely exclusively on the measures and practices implemented by management alone. All the measures and practices related to OSH must be executed by employees in a daily basis for them to be successfully implemented. As such, the working knowledge possessed by employees will play an important role (Miller and Monge, 1986). They know better their own needs and what must be done to implement the OSH measures. Therefore, management should make use of employees' collective knowledge through participation in decision-making (Ritchie & Miles, 1970; Miles & Ritchie, 1971). Moreover, employees would be able to understand better the measures that management will implement and reduce their level of resistance if they are allowed to participate in the decision-making (Melcher, 1976).

Beside that, management can also let employees to join a consultation-safety committee for them to contribute their ideas to the management on the implementation of OSH. There are a wide range of safety programs that the management can implement and the suitability depends on the daily operations of the organisation. Consulting employees on what kind of safety programs and how to implement them is an effective strategy as they are directly involved in the daily operation of the workplace where safety is constantly an issue (Fuller, 1999). Through this method, employees can exert direct influence on the safety programs that management will implement by telling the management directly what is being expected and what they can do. As a result, employees will be more 'attached' to the safety programs which they help to create and implement and strive to achieve the targets set by them and the management (Bicos, 1990).

Furthermore, joint regulation between employees and management in OSH will allow employees to actively participate and take ownership of OSH issues that affect them every day (Mylett & Markey, 2007). Instead of only the management bearing all the responsibilities on OSH, employees also shares the responsibilities and takes proactive measures to ensure their own safety in workplace. They will have more opportunities to investigate and communicate OSH issues with the management of their company. In the long run, employees will have more awareness towards OSH issues in their workplace and this will be helpful to management in the implementation of OSH. With more awareness, employees will pay more attention to their own safety and this will result in lower accident rate for the organisation.

As a summary, employee participation is a good management practice that SMEs can implement to help improve OSH in the workplace. It provides employees with the right platform as well as opportunity to voice their problems and give suggestions to the management to effectively manage OSH in the workplace. Management in SMEs should make use of the most suitable form of employee participation to facilitate the cooperation between them and their employees to improve OSH in the workplace.

4. Conclusions

SME is a unique in a sense that it is a group of establishments that lack the size and financial muscle of big corporations but play an important role in the country's economic development. They made up an overwhelming majority of the total establishments in Malaysia and their survival as well as development is tied to the development of the country's economy. It is a well-documented fact that due to their lack of financial capability and expertise; SMEs are lagging behind in the implementation of OSH. A lot of their workplaces are not safe and safety awareness among employees is relatively low. Accidents remain high even though the number is decreasing. Appropriate measures must be taken by management of SMEs to further decrease the accident rate. Assistance from the government is also important to help SMEs in implementation of OSH. The legislation that governs OSH in Malaysia in particular has to be reviewed as it does not consider the special needs of SMEs in dealing with OSH. Nevertheless, SMEs can take advantage of their small size and find innovative ways to implement OSH. For example, the smaller number of employees means management can get closer to them easier and understand the safety problems faced by them. This can be done through employee participation where the smaller workforce will not complicate the process of participation. Apart from that, supervisors in SMEs can give support to their subordinates easier as the number of employees is smaller. The organisational structure is flatter as well in SMEs and this will make supervision easier. Management in SMEs can also exert control on their employees more easily using safety rules due to the smaller workforce. In light of the many practices that SMEs can take to facilitate OSH implementation, management should make every effort to do it in order to make their workplace safer. Assistance from the government such as financial assistance and technical assistance are channeled through SMECorp to help SMEs in OSH. Besides that, the National Institute of Occupational Safety and Health (NIOSH) also offers a wide range of safety training and courses as well as consultation service at a fair price. SMEs should take advantage of these assistances and improve their capabilities in OSH. As a summary, SMEs in Malaysia are still lagging behind in OSH. A full range of assistance including financial, technical, consultation and networking is a must for them to successfully implement OSH.

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