

OCCUPATIONAL SAFETY AND HEALTH (O.S.H) TOWARDS ENVIRONMENT MAINSTREAM TOOL PRACTICES (EMT) AT MALAYSIA SMALL AND MEDIUM MANUFACTURING SECTOR

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Abstract

Implementation OSH is so important in Malaysia workplace, especially in Small and Medium (S&M) Melaka manufacturing sector. In this paper, we would like to include the New Strategic practices such as a new parameter in order to improve the number of percentage of accident and improve environment issue in work place. There are four components such as understanding, commitment, practice and behavior will influence the improvement of this research towards green environment practices. Primary data from 20 S & M manufacturing sector in Melaka was taken through phone call interview survey on 14/12/17-15/01/2018. These 20 manufacturing sector been identify poor in managing their OSH and environmental. These research high light the problems in the Melaka manufacturing sector such as the high occupational accidents including environment issue, which are probably due to lack of non-compliance of the requirements of Occupational Safety and Health Act (OSHA) 1994, Environmental Quality Act 1974 (EQA) and Guided Self Regulation Environmental Mainstream Tools (EMT). This study is to promote several management practices such training and safety management, understanding on self-regulation, enforcement and auditing towards EMT practices. from the analysis we found that with good compliance will reduce the accident case at work place.

Keywords: *Compliance; Self-Regulation; Environment Mainstream Tools*

Introduction

OSH and Green environment movement in Malaysia has been scrutinized due to lack of managing culture and non-compliance of the requirements of Environmental Act, Occupational Safety and Health Act (OSH Act), Factory and Machinery Act and others related Act. This research discussion a tools name Environmental Mainstream Tools (EMT). EMT has seven elements to measure the compliance of OSH manufacturing workplace towards green environment. The benefits of this practices and tools bring a solution for both parties (Malaysia Government and Small and Medium manufacturing sector). With the lofty goal to develop an industrial society and those involved in development projects that have an intrinsic culture of pride in environmental excellence (EE), the Department of Environment (DOE) has embarked on a program entitled "Guided Self- Regulation" (GSR). To assist the regulated community (RC) to achieve the state of self-regulation, the Department Of Environment (DOE) has formulated a set of environmental mainstreaming (EM) tools to be implemented in the organizations and industrial premises. With the lofty goal to develop an industrial society and those involved in development projects that have an intrinsic culture of pride in environmental excellence (EE), the Department of Environment (DOE) has embarked on a program entitled "Guided Self- Regulation" (GSR). To assist the regulated community (RC) to achieve the state of self-regulation, the DOE has formulated a set of environmental mainstreaming (EM) tools to be implemented in the organizations and industrial premises There are seven element in EMT as Environmental Policy (EP), Environmental Budgeting (EB), Environmental Monitoring Committee (EMC), Environmental Facility (EF), Environmental Competency (EC), Environmental Reporting and Communication (ERC), Environmental Transparency (ET).

Roughly there are about 415,000 registered manufacturing employers in Malaysia. About 200,000 in the Manufacturing sector and about 128,000 is S & M manufacturing, Melaka S & M organization around 22,000 units. 1500 is S & M manufacturing sector (Department Of Statistics 2017). Small and Medium manufacturing sector are play an important rule in our economic, their identity as Sales turnover not exceeding RM50 million OR full-time employees not exceeding 200 workers. Manufacturing Sales registered RM61.9 billion in May 2017. Malaysia's May manufacturing sales continues to record a strong growth of 19.5%, rising to RM61.9 billion as compared to RM51.8 billion reported a year ago (SMEDEC 2017)

Problem Statement

Small and Medium manufacturing facing many challenges in implementing OSH that may directly or indirectly hamper their ability. The researcher is going to analyze the major problem in S & M manufacturing sector as accident case keeps increase reported accident case in S & M manufacturing rate 50% - 80 % higher than big company (Kelly koh2017), due to lacking management and conforming to the basic requirement (Deros et.al 2014 & Laurence 2005), poor connecting monitoring between industrial and enforcement department (Mascini2005 & Walker, Tait 2004). No benchmarking on OSH and environment (Che Man 2010 & Champous, Brun J.P 2003), lack of promoting safe work environment and culture practice at workplace (Ali H et.al 2009 & Nielsen 2015).

Literature Review

The prospects and strategies for a green growth economy cannot be entirely understood without fully taking into account for the production, technology and management practices of small and medium-sized manufacturing sector (S&M), for example in clean production (CP). Cleaner Production (CP) was known as a preferred strategy for achieving an efficient use of natural resources and pollution prevention. In this condition employers need a information and knowledge in green environment through agency such 'MY HIJAU' or Perbandanan Teknologi Hijau Melaka and Department of Environment (DOE)

Clean Production (CP)

CP can be well-defined as the use of key concepts in the overall prevention, eco-efficiency, environmental strategies, full life cycle and etc. Ensuring that S & M is fully participated in the efforts towards green growth and benefit from policy changes to promote is a key challenge for the transformation ahead. They must get ready for the change and seek for a better life and future for a survivor of this Mother Nature (Yusup et al., 2014). In OSHA stated responsibilities of the employer under section 15 example provision of information, instruction, training, and supervision, section 16 mention employer must have a safety and health policy is their employees more than 5 persons, section 26. duty not to charge employees for things done or provided.

Section 24 mention on employees duties example cooperate with employer or any person on occupational safety and health as required by OSHA 1994, section 25 duty of employees not to interfere with or misuse things provided pursuant to certain provisions, even it mention too, for supervisor or manager to identify hazards, risks and taken the necessary action to reduce the hazard through Job Safety Analysis (JSA) or Hazard Identify Risks Assessment and Analysis Control (HIRAAC)

The increasing cost of environmental, operations, market, regulatory, voluntary initiatives and international standards were the important measures for the implementation of CP. However, some manufacturing firms are still reluctant to take more aggressive and proactive actions towards CP due to perceived lack of evidence that the impact of CP exceeds the costs required in implementing this strategy. Manufacturing firms are more competitive when they have the high capacity of innovation and able to continually demonstrate the culture of continuous improvement. This will bring a better sustainable environmental performance effect, thereby enhancing the performance of the environmental management system (Yusup et al., 2014).

S & M participate actively in the sectors that are the focus of recent green-oriented policies example Melaka state government green policy, such as renewable energy production, smart metering, building

refurbishment, cleaner cars, the wind and solar installations, and battery development (IEA, 2009). S & M Manufacturing shall begin their green environment awareness to employees through 'back to basic' management concept with the minimal cost even can reduce their operation cost example reduce using paper, electrical saving, reduce raw material waste, schedule waste management, air emission monitoring, chemical exposure monitoring, reduce reject ratio and increase productivity and efficiency. A competency person to manage their environment example Certify in Schedule Waste Management (Cepsam) and compliance to Guided Self Regulation towards Environmental Mainstream Tools (GSR-EMT).

Many of the young manufacturing which is more concern on the green environment because they are more educated and be exposes to the need in the new era of manufacturing concept and green environment Technology skill and knowledge. They know OSH and green environment is part of today manufacturing management concept as the important of Chemical Hazard Risk Assessment (CHRA), Noise Monitoring, Stack and emission monitoring, Local Exhaust Ventilation (LEV), Safety Data Sheet(SDS) to implementing in their organization.

However, for S & M Manufacturing to fully participate in the transition towards sustainable economic patterns and seize the opportunities arising, it is essential that the main barriers to green growth and eco-innovation are identified. It is also crucial that consistent policy strategies are identified and implemented to encourage S &M investment in eco-innovation and sustainable practices, in both manufacturing and services. As today condition , many multi –national manufacturing are produce a Eco Technology product such in car, and energy saving product, less carbon exposure product or 'Green' Technology which may encourage Small and Medium organization as a smart-partnership through knowledge , skill and technology sharing.

Methodology/Materials

This research involves only documentation study through primary data, Data collection is through phone conversation to all participation by asking a few questions on OSH Environmental budgeting, policy, competency, internal auditing, training educating, committee members and top management commitment through Yes or No answer, Such questionnaire as below:

- Does your organization have any allocated budget in OSH?
- Any OSH and environmental Policy in your organization?
- Any competency person such as confine space entry supervisor, confine space entry supervisor, Schedule waste management person (Cepsam), OSH leader or supervisor?
- Top management commitment is at the top level? an example join OSH meeting? Or encourage OSH training?
- Conduct any training and education? Any training schedule or plan?
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- Setting any OSH committee and Environmental committee? who is the chairman?
- Any internal audit team for OSH and environmental? Carry out an audit in a year?

(Questionnaire adopter from www.doe.gov.my/emt)

This all participation is known by researcher and work before as staff in the concern organization as selected area (table 1). Data collection is from 14/12/2017-15/01/2018 and selected sampling , this organization be selected because of their OSH management system in moderate or poor condition ,most of the respondent is researcher ex-company and some of it researcher friends working company, and the connection of the researcher with the industrial from he 25 year experience in SME manufacturing sector, most of the respondent need improvement and knowledge to improve, due to their lack of connection with enforcement department, lack of safety promotion and no benchmarking, hope with this data, a progress of improvement can carry up to given an awareness for all SME manufacturing sector on OSH towards green environment.

Table 1: Data Collection Status

| NO | Industrial Area | Total Small and Medium Manufacturing | Total Manpower |
|----|------------------------------|--------------------------------------|----------------|
| 1 | Bukit Rambai and Tangga Batu | Six | 424 pax |
| 2 | Kelemak and Rembai | Three | 230 pax |
| 3 | Krubong | Two | 275 pax |
| 4 | Masjid Tanah | Four | 342 pax |
| 5 | Cheng | Three | 211 Pax |
| 6 | Jasin | Two | 185 pax |

From table 1 data, the participants from Bukit Rambai and Tangga Batu manufacturing is animals feed producer and related to animals feed, this company has operated more than 15 years in the area. Participants from Kelemak has involved one human food manufacturing and operate about 15 years at the location, Rembai industrial area involves two wire manufacturing company where remove from Taman Merdeka and Paya Rumpit Melaka, they actually have operated as the wire producer for 10 years, only move to the location Rembia 5 year ago. Krubong participant is from one papermill company operate more than 20 years and one is plastic company, operate 15 years, participants from Masjid Tanah is, two from human food producer, operating above 15 years, and two is plastic manufacturing producer which has operated 15 year, Cheng industrial participant is involved one printing manufacturing, two stamping manufacturing, all of them are operating more than 15 years, for Jasin industrial area, participants are from Paper and paper mill manufacturing, they operate more 15 year, most of the participant is operating more than 15 years and they shall understand the requirement of DOSH and DOE but very sad they are not aware on OSH and environment after long year of operating, this is why they are been selected in this research.

Results and Findings

Table 2: Percentage of Non-Compliance

| | | | |
|-------------------------------|----------------------------------|-------------------------------|-----------------------------|
| OSH & Environmental Budgeting | OSH & Environment Policy | OSH& Environmental competency | OSHE Training and Education |
| 100% | 64.70% | 82.35% | 11.76% |
| OSH & Environmental Committee | OSH & Environment Internal Audit | Top Management commitment | |
| 18.75% | 95% | 95% | |

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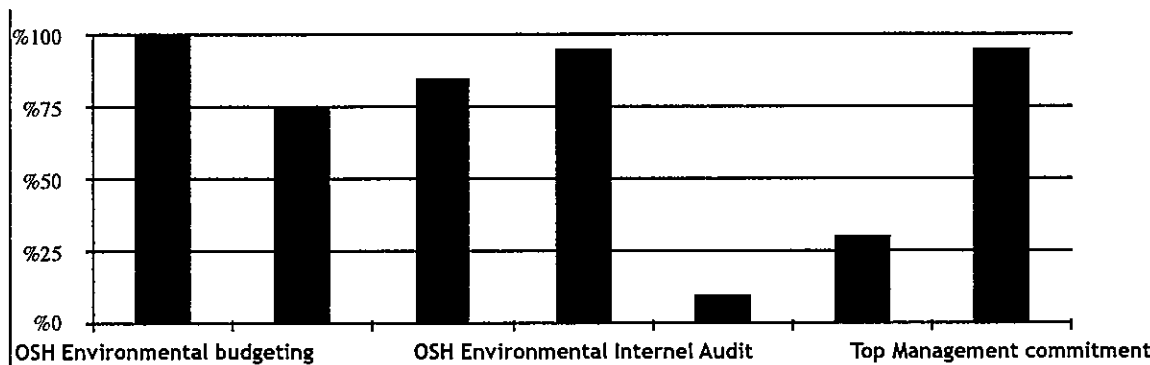


Figure 1: Non-Compliance to Activity

Safety policy is compulsory when organization total employees achieve 5 people (table 2 – 75% non-compliance), OSH committee is required when total employees achieve 40 people and above (table 2- 30% noncompliance), training and education in OSH is needed as requested by Occupational Safety and Health Act 1995 Section 15, others such internal audit (table 2- 95% noncompliance) and Systematic Occupational Health Enhancement Level Programmed (SOHELP) is an additional improvement for SME manufacturing to upgrade their Occupational Safety and Health management system. Top management commitment is the keywords to the success of the OSH management system; the key index measurement on this matter is from their OSH policy implementing, OSH budgeting, top management involvement in any OSH activity, Chair OSH committee meeting and setting an active and effective OSH committee member.

Environment policy, environment committee, and auditing is involved in all organization, it under Department of Environmental Director General Order through Guided of Self-Regulation (GSR), it including environment Policy, budgeting, monitoring committee facility, competency, reporting, communication and transparency, in this survey it only involves some of the Guided Self-Regulation (GSR) requirement. Top management commitment is very important to make this OSH and environment implementing success.

OSH & Environmental Budgeting

Through the survey (table 2), we notice that 100% of the participant does not have any budgeting for their OSH and environmental operation due to the mind of management tough that it is not important and wasting. Example for their OSH committee to carry up any awareness activity or motivation budgeting. They only using their operational cost when is really needed such requested by the enforcement department such Department Of Occupational Safety and Health (DOSH), no special allocation budget for OSH & environmental form all of this participants.

Apart from OSH legislation, SME manufacturing implementation of OSH is also affected by the size of the company. (Holmes, N 1999) found that SME businesses are not effective in implementing OSH because the management put the responsibility on employees to look after their own safety in the workplace, SME manufacturing business is a family business and culture on managing OSH is zero. (Cooke, W. N., and Grauschi, F. H 1981) found that the inspections on workplaces carried out by the authority managed to reduce workplace accidents. Enforcement authority such Department Of Occupational Safety and Health (DOSH) should carry up inspection at least quarterly and not yearly to all SME manufacturing sector.

DOSH shall carry up education and auditing system without punishment in first or second time, guild them to be a success in managing OSH, punishment system will make them tension or stress and give out in OSH management. In addition, the appointment of personnel to carry out OSH matters at the workplace is important for an effective implementation of OSH, but the appointment of an employee will add employment cost to companies.

Top Management Commitment

Top management commitment is very important to carry up any activity such company safety policy(table 4- 75% no compliance) and others related to OSH, without commitment from top management all activity will consider fail, without budget and approved by top management all activity cannot implementing, commitment to follow and obey any regulation from time to time such law or regulation, commitment to assign a person in charge (PIC) in OSH environment example OSH supervisor or officer and setting a OSH committee members (30% no compliance)with fully authorized to the chairman carry up their duties without fear. Commitment organize internal organization procedure and regulation including internal audit team (95% no compliance table 2), commitment to giving cooperation with external auditor example enforcement department such DOSH. Commitment to motivate employees to participate in OSH activity, yearly OSH budgeting, leadership through example in OSH, recognize OSH committee members contribution and others.

Employers shall practice what have been plans and commit to doing, practice the right thing at the right time and right environment to motivate employees in OSH. This good practice needs a safety operation procedure as a guideline or any procedure such work as high permit, hot work permit, and machine safety operation. Employees practice what has assign from the top management as what has stated in internal regulation, check what is the best practice can be implemented in work towards the green environment, training and education are one of the sources to make sure all concern person know what to practice in their workplace. Practice what understands in OSH and improvement process to the contractor or any visitor. Implementing OSH needs considerable financial investment as employees need to be sent for training and re-training, allowing time off for training to create awareness and understanding as well as a continuing commitment of resources in updating OSH information within the organization.

Training And Education

SME manufacturing sector through Human Resource Department need to improve their OSH practical to reduce accident case, financial may is an issue but should not be a big issue, because our Malaysia government are preparing many incentives or grant for SME implementing their OSH example Department of Occupational Safety and Health, National Institute Occupational Safety and Health (Training & information), National Human Resource Center (NHRC)and Human Resource Development Fund (advice and Training Fund), Even some Federation such Federation of Malaysia Manufacturer (FMM) and Malaysia Employers Federation (MEF) also can provide an advice and training to SME with zero or minimum cost. The important is Employer need to understand on Training Need Analysis (TNA) to train the right person for a right knowledge in the right time at the right place, most of the employer are fail to perform this matter causes wasting of training source by train a wrong person for a wrong task, in this research, most of the participant are success to using their HRDF properly to conduct training and education on OSH and environment. (Only 10% no compliance).

How about a foreigner or foreign work? Most of the accident case at SME are involving foreigner due to lack of skill and knowledge, communication involves the principal of Training Within Industrial Job Instruction And Job Relation(TWI-JR/JI) is a big issue today. The principal of OSH cannot delivery to the foreigner are caused high accident case among SME employees. To overcome this problem, the government through HRDF to allocate same budgeting to train basic OSH for the foreigner at SME, The Levi can deduct from the foreigner salary as practices for local employees through amendment of the law.

Training is part of continuing education for adult learner, for current local employees shall not facing any costing on training, organization can claim the cost of Human Resource Development Fund (HRDF) or PERKESO training fund, the problem is how to train foreign workers, most of the accident case today is caused by foreign workers due to communication, communication links institution to the external environment. It is through exchange of information that managers are informed of customer requirements, availability of materials, the demands of shareholders, government regulations, and the reaction of society (Olurotimi A. Shonubi et al 2016). language and lack of training problem, to overcome this problem, the National Human Resource Centre shall create a language course such as Hindi, Vietnam, and others for organization Human Resource Officer or

manager to communicate with this foreign workers, through this, organization can assign the concerned officer to be internal trainer to train these foreign workers about OSH towards green environment, or government to allow organization to spend some budget from HRDF to train concern foreign workers only in OSH towards green environment with bond after contract. In the case of SME, OSH is often perceived as irrelevant as they do not have a huge workforce and OSH implementation cannot be translated into the direct monetary gain for the company and thus seems as unimportant for companies survival (Lahm, F 1997)&(McKinney, P 2002).

Research Framework

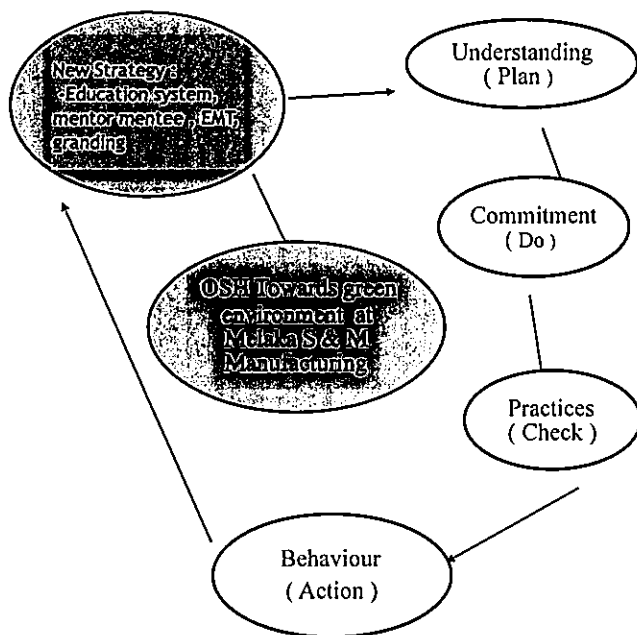


Figure 2 : Research design (Adopted from Dr Edwards Deming)

This framework is a process adapted from theory PDCA, it is a nonstop process because managing OSH towards green environment is a nonstop process, new regulation, new system new Act, new skill, and knowledge need to upgrade and updated from time to time, follow the changing of technology, human behavior and the request from the surrounding such population of manufacturing and housing

Understanding

This is a beginning process for managing OSH towards the green environment by the employer at S & M manufacturing sector, understand the need of the Malaysia regulation in OSH and Green environment through understanding OSH Act and Environment Act requirement from time to time. Not only to understand the Act requirements but also understand why they must implement OSH towards green environment at their workplace, the advantages and disadvantages when implementing OSH, and how to overcome any disadvantages problem, where to get more information on OSH skill and knowledge. The stage is more to planning stages, and it must be carried up properly with affect others step in later. Effective communication is inevitable, as it binds activity of individual, group, organization and community in all human societies.

Plan ■ Think about where you are now and where you need to be.

■ Say what you want to achieve, who will be responsible for what, how you will achieve your aims, and how you will measure your success. In this stage, the concept of 5 W I H – What, Where, Who, When, Why and How example why You may need to write down OSH Policy or Environmental Policy who shall responsibility through it when can implement, what to implement and how to monitor?

Through understanding on what shall plan to achieve the vision in EMT towards green environment, the organization have achieve plan to reduce their workplace incident, accident on any environmental matter, at the same time can reduce the risk of employees injuries or any near miss case where may save their machinery damage or lost in operational costing.

Commitment

Top management Commitment is very important to carry up any activity such company safety policy, company environment policy and others related to OSH and environment. Without the commitment from top management, all activity will consider fail, without a budget and approved from top management all activity cannot implementing, commitment to follow and obey any regulation from time to time such law/regulation armament example environment clean air 2004 to 2014 regulation.

Do ■ identify your risk profile? And Do what you have a plan.

■ Assess the risks, identify what could cause harm in the workplace, who it could harm and how, and what you will do to manage the risk and it shall in your plan to overcome the risk of any emergency, example you need an emergency response plan and team, the team have to do as in the plan. Decided what the importance, very important so important, urgent, so urgent and very urgent to organize your activity into your plan.

With a good commitment from the top management and a proper do what has plan will increase employees motivation and improve their skill and knowledge which can reduce their lack of commitment to achieve the mission with ‘together we achieve more, achieve better environment for a better health’.

Practices

Employers shall practice what have been plans and commit to do and practice the right thing at the right time and right environment to motivate employee’s example what has stated in OSH and Environment policy, regulation, and act. This good practice needs a safety operation procedure as a guideline or any procedure such work at high permit, hot work permit, and machine safety operation. Communication is one of the most important elements of the management process. Effective and proper communication in organization has always been essential part of success in management. Experience has proved that, if the organization is not in a proper communication, circulation of affairs will be disturbed and messed.(Olurotimi A. Shonubi et al 2016).

Check ■ Measure your performance or Monitor you progress performance

■ Make sure that your plan has been implemented – ‘paperwork’ on its own is not a good performance measure. You have to check on the progress performance effectiveness to make sure it follows what you have planned and do. Assess how well the risks are being controlled and if you are achieving your aims. In some circumstances, formal audits may be useful, internal and external audit will help the organization to measure their progress achievement level and how their employees understand through what they implement including investigating the causes of an accident, incident or near misses if happening.

Practices and compliance to the regulation with a proper checking the program performance from time to time will reduce employees related illness example with a good local exhaust ventilation with improve a clean environment at work place which may give a good air for the workers, at the same time a clean production management such schedule waste management, noise management and chemical management will benefit the working environment became more healthy.

Behavior

Behavior-based safety focuses on employees’ behavior but employers must show a good attitude and behavior in carrying up the good practice of OSH towards green environment, leadership through example to be followed by others employees, this is a step where everyone has to practice what has been understanding, commit to a good behavior and attitude to achieve OSH vision and goals. It is suitable for a variety of industry sectors, from construction and manufacturing industry to food processing. It is based on the principles of behavioral psychology and is a technique for modifying the behavior of employees to enable them to work in a safe manner.

Act ■ Review your performance or action through any weak point

■ Learn from accidents and incidents case, ill-health data, errors and relevant experience, including from other organizations. This is a process to identify any weak point in process of implementing any activity such internal or external audit, take action to overcome it or improvement through 'never-ending improvement' 'fast action' to reduce any risk including review policy and others necessary action.(Tinhnam2013)

Behavior and good attitude towards better environment is a very importance step, with a good behavior and attitude can confirm that not wrong compliance to the regulation and the process of improvement are not bee sabotage by anyone, this step is to make sure that employer are talking the right action to improve their system to achieve a green environment with a good leadership through example to bee follow by others internally or externally.

New Strategic

This is a new process to make the framework more strengthen as mentor-mentee and adoption system where S & M manufacturing sector can go through a multinational organization to be a mentor sharing any information on how to improve OSH at the workplace or sharing any facility example training room. This process also involves enforcement department where they can adopt some organization for guiding them in proper information on managing OSH towards green environment example one enforcement officer may adopt one organization in beginning to improve and implement a proper OSH towards green environment. A smart partnership program can be created where the knowledgeable organization can guide this small and medium manufacturing on green environment to achieve Melaka 'Smart, Green and Clean'. This process also can involve 'environment partnership' where the enforcement department can assign concern manufacturing sector in program of sharing and improvement knowledge in environmental, with participate from multinational manufacturing, this process shall be a nonstop program and a platform to build a good relationship with small and medium manufacturing sector to achieve a better green environment for Melaka.

Grading is the process to identify S & M manufacturing level in managing OSH towards the green environment, through it multinational company can identify what to share, how to help and guild the concern organization, at the same time, it can be using as a guideline for enforcement department to choose a right organization for adoption. At the same time, this grading can create awareness among employers and employees and surrounding community on how this organization level in managing OSH towards green environment. It shall implement with a grade sticker stick at the main door entrance to office and no at MYKKP system which only the OSH person in charge aware of it. Information from DOSH 2017 mention that 75% of the manufacturing only achieve grade 'C' through the auditing carry up by them, this prove that most of the manufacturing sector need to been guild on how to improve their OSH management towards green environment.

The education system is a process to create an awareness labor on OSH management skill and knowledge, this is a long-term process to create a new culture of managing OSH among S & M manufacturing sector. This process involves school education system where basic of OSH shall be been teach in college, university or secondary school where produce our labor market. It shall be a compulsory pass subject and no as a co-curricular activity only.

Through formal education system improvement, we hope that labor market can produce more competency person in OSH and green environment, through this, small and medium manufacturing can save their time, and cost to train new staff to get them became competency person in the field. The overall framework is a nonstop process to full fill any changing in future culture from time to time where the organization must aware on any regulation amendment and provided the information to the concern person in charge to upgrade the vision.

Training is part of continuing education for adult learner, for current local employees shall not facing any costing on training, organization can claim the cost from Human Resource Development Fund (HRDF) or PERKESO training fund, the problem is how to train foreign workers, most of the accident case today is causes by foreign workers due to communication, Without communication, there would be no direction, and without direction, management are left handicapped and confused, employees are left struggling with daily task. Conversely, without an effective communication structure in an organization, the day to day planning will be ineffective, making organizational aims

and goals unachievable(*Olurotimi A. Shonubi et al 2016*). language and lack of training problem, to overcome this problem, National Human Resource Centre shall create a language course such Hindi, Vietnam and others for organization Human Resource Officer or manager to communicate with this foreign workers, through this , organization can assign the concerned officer to be internal trainer to train these foreign workers about OSH towards green environment, or government to allow organization spend some budget from HRDF to train concern foreign workers only in OSH towards green environment with bond after contract including training in Environmental Mainstream Tools (EMT) towards green environment at workplace.

The education system is a process to create an awareness labor on EMT management skill and knowledge; this is a long-term process to create a new culture of managing EMT among S & M manufacturing sector. This process involves school education system where basic of EMT and Green environment shall be been teach in college, university or secondary school where produce our labor market. It shall be a compulsory pass subject and no as a co-curricular activity only. The overall framework is a nonstop process to full fill any changing in future culture from time to time.

Environmental Mainstream Tools (EMT)

To assist the regulated community (RC) to achieve the state of self-regulation, the DOE has formulated a set of **environmental mainstreaming tools** (EMT) to be implemented in the organizations and industrial premises. Environmental Mainstream Tools (EMT)practices as a new parameter in order to improve green environment practices in the workplace. There are seven elements in EMT as Environmental Policy(EP), Environmental Budgeting (EB), Environmental Monitoring Committee (EMC), Environmental Facility (EF), Environmental Competency (EC), Environmental Reporting and Communication (ERC), Environmental Transparency (ET) (www.doe.gov.my). OSH and Green environment movement in Melaka has been scrutinized due to lack of managing culture and non-compliance of the requirements of Environmental Act, Occupational Safety and Health Act (OSH Act), Factory and Machinery Act and others related Act. This research provided law, regulation practices and tools name Environmental Mainstream Tools (EMT). EMT has seven elements to measure the compliance of OSH manufacturing workplace towards green environment. The benefits of this practices and tools bring a solution for both parties (Melaka Government and Small and Medium manufacturing sector). Environment Mainstream Tools (EMT) has seven elements to measure the compliance of manufacturing workplace towards green environment as (figure 2).

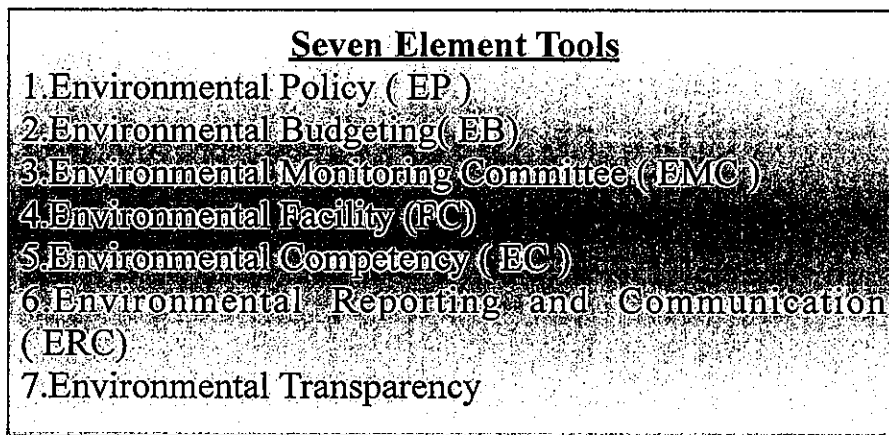


Figure 3 :Major Tools (www.doe.gov.my)

Environmental Policy (EP)

The environmental policy (EP) of successful organizations uses strong and unequivocal statements to convey their environmental commitment to their employees, clients, stakeholders and the public. The EP is disseminated to all relevant parties and translated into action in the organization's work procedures, materials purchasing a policy, business decision making process and cascades down to the supply chain.

Environmental Budgeting (EB)

Sufficient budget must be set aside solely for the purpose of taking measures to comply with the environmental regulatory requirements and other environmental-related efforts. At the design stage, the budget must be available for the design and installation of the pollution control facilities, while at the operational stage; budget must be allocated for proper operation and maintenance of pollution control systems and management of waste generated by the industry or project development. The environmental budget also includes the cost for setting up of laboratory facilities, provision of personnel, and purchase of performance monitoring equipment. (Doe/EMT 2017)

Environmental Monitoring Committee (EMC)

The success of an organization to comply with the environmental requirements is contingent upon the relevant personnel in different departments in the organization playing their role in an effective manner. To promote collective responsibility to be environmentally compliant, two monitoring committees are set up: one at the working level, the other at the policy level. At the working level, the committee known as the environmental performance monitoring committee (EPMC) is chaired by a senior official of the organization and it meets on a monthly basis, or at a minimum, once in a quarter. At the policy level, the committee is known as the environmental regulatory compliance monitoring committee (ERCMC), which meets at a minimum, once a year. The chief executive officer or chairman of the organization chairs the ERCMC.

Environmental Facility (EF)

The primary components of the environmental facilities (EFs) include industrial effluent treatment system, air pollution control system, best management practices, and associated support facilities. Such as laboratory, performance monitoring equipment, online instrumentation system, and waste management infrastructure. The above form an integral part of the company's overall infrastructural planning, which cannot be compromised.

This a process in EMT which can practice achieving or as a guide line for SME to carry out their OSH towards green environment, with environmental monitoring committee, audit can be carried out as safety audit or walkthrough audit with element of environment by their internal audit team, external audit team can consider an audit by the enforcement agency once a year or twice a year.

Conclusion

Improvement in occupational safety and health requires actions from all parties namely workers, employers and the government. Accidents at the workplace should be prevented with the cooperation from both employers and employees on top of regular enforcement from the government. Occupational accidents are preventable and safety measures could help reduce the severity of occupational injuries. Occupational fatalities and permanent disabilities were more likely to be severe compared to non-permanent disabilities. Safety measures to improve performance in the management of occupational safety and health should be emphasized to overcome this problem.

The best practices among industrial players, especially with respect to occupational safety and health, should be shared within the industry. The employer, employees, and DOSH must combine forces and try to prevent future occupational accidents by addressing the root cause of accidents. It is undeniable that a combination of rules from the government, attitudes from the workers and good practices initiated by the employers will create the positive safety culture in the workplace. , the review looks at managing OSH culture and top management commitment, OSH management, cooperation among Small and Medium Manufacturing with enforcement agency.

Behavior-based safety focuses on employees' behavior but employers must show a good attitude and behavior in carrying up the good practice of OSH towards green environment, leadership through example to be followed by others employees, this is a step where everyone has to practice what has been understood, commit to a good behavior and attitude to achieve OSH vision and goals. It is suitable for a variety of industry sectors, from construction and manufacturing industry to food processing. It is based on the principles of behavioral psychology and is a technique for modifying the behavior of employees to enable them to work in a safe manner.

Supporting from Department Occupational Safety Health (DOSH), Department Of Environmental (DOE), And National Institute Occupational Safety Health (NIOSH) will ensure S & M Manufacturing understand what is OSH and Environment at the Workplace, create their commitment through implementing OSH at the workplace, it can build a best practices among them to improve their working behavior towards safety and clean environment for a better surrounding environment. Existing S & MOSH issues posed a need to understand the influence of S & M capabilities such as the management commitment, legislative role, demographic profiling, and external support on current OSH implementation status.

The research objective is to investigate the practice of managing conforming to compliance OSH act, Environmental act and others related regulation from time to time, identify collaboration among employees, employers, enforcement department through auditing, creating a new strategy of promoting OSH towards green environment. Promote several management practices such training and safety management, understanding on self-regulation, enforcement and auditing towards EMT practices. Through this research we found that most of the small and medium manufacturing sector are not compliance to the regulation, they need to be guided through a proper method by the right person at the right time and right place. We confidence through understanding, commitment, practices and behavior can improve their managing OSH towards green environment in Melaka state as 'SMART, GREEN AND CLEAN'.

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