

OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT IN MALAYSIAN TRANSPORT INDUSTRY: AN INSIGHT

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ABSTRACT

Purpose: This literary paper aims to provide an insight on the relevant risks, occupational hazards and work accidents; and occupational safety and health management system in transport industry in Malaysia.

Design/methodology/approach: This paper presents an in-depth literature review from various sources of publications and past previous research carried out on work hazards, road and work accidents in the transport industry and operations within Malaysian context.

Findings: Findings from this paper are presented as a summary on the deployment of occupational safety and health management system and the applicable OSH laws, standards and codes of practices for transport industry in Malaysia. The OSH codes of practices and guidelines, and OSH implementation is far from the expected standards. Adherence and enforcement are lacking in the actual transport industry as road and work accidents kept increasing. In conclusion, there is an urgent need to enforce OSH legal requirements, codes of practices and OSH management implementation, trainings and monitoring in accordance with the ILO Decent Work Agenda.

Research limitations/implications: This literary paper focuses and limits to occupational safety and health management system, road and work accidents in the Malaysian transport industry. The practical implication is to provide updates on the codes of practices on road and public safety, workers' health and welfare in transport industry; and the extent of these codes being implemented together with the OSH management system.

Originality/value: This paper provides inputs for potential variables and constructs for future research on occupational safety and health management in transport industry which is still new in Malaysia.

Keywords: occupational safety and health management, road safety, transport safety, occupational safety and health standards, codes of practices.

Introduction

Occupational safety and health management typically abbreviated as OSH management has long been in existence centuries ago even before the industrial revolution in the West (Goetsch, 2007; 2011; 2014). OSH management is still relevant and more so in the near future as it focused mainly on safety, health and welfare of staff, employees, workers or laborers at work in all industrial sectors and business organizations with economic gain (Shariff, 2011). Work safety is an important management aspect in all companies and is essential to protect working people from work accidents and accidents at workplace (Au Yong and Mohamad Zailani, 2011). Basically, occupational safety refers to work conditions, situations, tasks and activities, and whatever synonymous to these terms that are being carried out without any forms of danger or harm that may affect the health of a worker either at work or at a place of work (ILO, 1996 – 2014). Occupational health is a specialized area that is concerned with anticipation, recognition, evaluation and control of environmental stressors or factors in the workplace that may cause or inflict discomfort, sickness, illness or impaired health and well-being of the workers and causing occupational diseases (Shariff, 2011; Goetsch, 2011).

OSH management is applicable to ten industries in Malaysia as listed in the First Schedule of the Malaysian OSH Act, 1994, namely: 1) manufacturing; 2) mining and quarrying; 3) construction; 4) agriculture, forestry and fishing; 5) utilities; 6) transport, storage and communication; 7) wholesale and retail trades; 8) hotels and restaurants; 9) finance, insurance, real estate and business services and 10) public services and statutory authorities (OSH Act, 1996). OSH is legally enforced in 2000 after five years grace period given to these industries to comply with the OSH legislations, and to develop

their human capital such as training of the OSH officers, staff and workers; and to implement programs in compliance with these regulations (DOSH, 2013).

Literature Review

Occupational Safety Hazards

It is undeniable that work hazards and environmental stressors, risks and dangers are present at the workplace and work environment in all premises such as offices, workshops, laboratories, warehouses, working on the roads, air, land; and interacting with machines, vehicles, aircraft, equipment or appliances that are related to works of all kinds (NIOSH, 2008). Most heavy industries, improper work place design, ill-structured jobs, mismatch workers abilities with job demands, adverse working environment, poor human-machine system design and lack of management programs create occupational work hazards (Ashraf and Naseem, 2003). Some typical occupational safety hazards are slips and falls, impacts and collisions, falling objects and fall from heights, drowning and electrical hazards, to mention the common work hazards (Goetsch, 2011). Occupational work hazards (Ismail, et al. 2010; Goestch, 2011, Shariff, 2011) are commonly categorised as: 1) chemical hazards from fumes, mists, smoke, etc which are commonly present in chemicals, fertilizers and paints, manufacturing processes, labs, workshops, plantations; 2) physical hazards in the forms of noise, high pressures and vibrations, ionised radiations which are present in construction sites, airports runways, hospitals (x-ray/imaging, operation theatres), working with high-powered tools in road/builldnngs/engineering works; 3) biological hazards in the forms of virus, bacteria, parasites commonly found in farms, veterinary, hospitals working with sick patients, and contacts with the flora and fauna kingdom; 4) electrical hazards from electrical surge and short circuits; 5) mechanical hazards in activities dealing with machineries, cranes, boilers, pressure vessels and vehicles; 6) psychosocial hazards that are affect employees via human and social interactions such as work, peer, organizational pressures and work challenges and last but not the least; 6) ergonomics hazards affecting human body postures, repeated motions and excessive movements. Hazards at work place are aplenty as this is not the end of the list.

Occupational Health Hazards

OSH management is widely implemented in the first five industry sectors mentioned above; but not for the transport and storage, and business services. The Ministry of Human Resources in Malaysia quoted there were 55,208 workplace accidents reported in 2009, of which 20,814 cases were commuting to or from workplace, and 35,394 accident cases ocured at the workplace (Au Yong and Mohamad Zailani, 2011; Harian Metro, 2010). From 2005 till 2014, there had been many express buses and public transportation involved in road accidents with increasing number of fatalities and serious injuries among passengers (MIROS, 2009; 2014; DOSH, 2013). Adding to the high increase of road fatalities, there were also other problems with too many express bus companies and problems on drivers shortages (Lee, 2014). Bus drivers also complained of working long hours, work fatigue and lack of facilities and welfare for them (Bavani and Lee, 2014; Lee, 2014). These factors lead to workers' health problems and work performances; thus causing organizational symptoms such as absentism, poor work quality and job dissatisfaction (Dua, 1994). Over the last ten years, the issues of psychosocial risks and work-related stress in particular have gained increasing attention in many European countries and in Germany. This is mainly due to rising problems related to psychosocial risks (human suffering, stress, mental problems, burn out and economic losses) (WHO, 2012). Job stress is a global phenomenon and occur in both western and eastern work settings (Idris, Dollard and Winefield, 2010). Sources of work stress are multi-factors such as external (political, economical), organzational (supervisors and management), tasks (demands and resouces) and individual factors (Idris et al, 2009). An estimated 160 million people also suffer from work-related diseases and estimated 270 million fatal and non-fatal work-related accidents per year where ILO estimated a total loss of 4% of the world's annual GDP as a consequence of these occupational diseases and accidents (Report VI, ILO 2003).

Work and Road Accidents

Nearly 0.5 million people die and up to 15 million people are injured in urban road accidents in developing countries each year, at a direct economic cost of estimated two percent of worldwide gross domestic product (World Bank Report, 2000). The number of commuting accidents over the years was increasing as reported in the Malaysian Social Security Organisation (SOCSO) with 22,040 cases (39 per cent of the total number of industrial accidents) (SOCSO, 2012). Commuting accidents were those involving employees on their way to and back from their workplace, when they were out for lunch break or travelling from one point to the other as required by their scope of duty. "Even though commuting accidents are reported as traffic cases but because it involves employees it is one of the

occupational safety and health problems" (Lee, 2011). Lee (2012) said Malaysians needed to set a higher benchmark at three to four cases every 1,000 workers, on a par with those in developed countries. Thus, human behaviour and lackadaisical attitudes towards safety must change for the better. The ongoing globalization of the world economies, accelerating world trade liberalization, rapid technological progress and significant developments in transport and communication and its consequences have been perceived as the major current driving force for changes affecting the world of work and OSH. Simultaneously, there has been underlying concern about the effects of demographic growth and dynamics, population movements and increasing pressures on the global environment too. As a result all countries are still undergoing profound structural adjustments which affect their economic, social and cultural fabric, safety and health of workers at large ILO (2014). Henceforth, this literary paper aimed to provide in-depth literary insight on OSH management implementation and policies deployment in the transport industry in Malaysia.

Occupational Safety and Health Management Global Standards

World Health Organization (WHO)

World Health Organization (WHO) is the world health directing and coordinating body within the United Nations system that is responsible not only for leadership on global health matters and world health research agenda, but sets the world health guidelines and standards, provides technical support, monitor and assess health trends, and working with all countries and governments on global health problems to improve people's well-being (WHO, 2013). Years back in 1995, WHO defined occupational health aims at: the promotion and maintenance of the highest degree of physical, mental and social well being of workers in all occupations; the prevention among workers of departures from health caused by their employment; the protection of workers in their employment from risks resulting factors adverse to health; and the placing and maintenance of the workers in an occupational environment adopted to his physiological and psychological ability and the adaptation of work to man and ergonomics (WHO, 2000). Now, in the 21st century, health is now a shared responsibility through WHO REFORM (WHO, 2014).

International Labor Organization (ILO)

After a series of global safety and health conventions, the International Labor Organization (ILO) is now the world mandate body that governs safety and health of workers, works and the environment. ILO's basic function is to formulate international labour standards, sets minimum standards of fundamental human rights at work and other standards regulating conditions across the entire spectrum of work-related issues (Report V1, ILO 2003). The driving force for ILO specifically regulates the main principles, means and methods dealing with OSH concerns as laid down in 17 Conventions, one Protocol and 23 Recommendations. Quoted in Report VI (ILO, 2003): "safety and health at work is an urgent concern in all regions of the world and there are indications that the levels of occupational accidents and diseases are on the increase. OSH matters have expanded from a workplace, sectoral and national focus to the global arena; OSH is firmly embedded in the concept of decent work and integrating with social, economic and environmental policies towards global sustainable development. The underlying principle is that workers should be protected from sickness, disease and injury arising from their employment. However, the reality in the world is two million people die every year from work-related accidents and diseases (ILO, 2014). Hence, regardless of the boundaries between ILO and WHO, the common underpinning aims are addressing the integration of OSH management towards reducing occupational deaths, injuries and illnesses at work and occupations across the industries. Henceforth, OSH is the key management aspect towards the establishment of decent working conditions, work environment, safety work cultures and human right (Report VI ILO 2003).

OSH Global Standards

There are several world OSH standards that have been successfully implemented by advanced nations such as United Kingdom (UK) and Europe, United States of America (USA), Australia, New Zealand and Japan. The OHSAS 18001 (now officially BS OHSAS 18001: 2007 in 2013) is an improvised version of BS8800:1996 Guide to OSH management systems is an internationally-applied British Standards for the establishment of OSH management system in an organization. OHSAS 18001: 2007 is presently the most widely used and recognized standard for Occupational Health and Safety Management Systems (OHSAS 18001). For USA, OSH management is governed by the US Department of Labor and the Occupational Safety and Health Administration (OSHA) regulated under their Occupational Safety and Health Act of 1970 with the objectives to assure safe and healthful working conditions for working men and women by setting and enforcing standards; and by providing training, outreach, education and assistance (USA Department of Labor, 2014). OSH in Australia is coordinated by Department of Employment: Office of the Federal Safety Commissioner with the

Commonwealth, States and Territories having responsibilities for regulating and enforcing work health and safety laws in their jurisdictions. However, Safe Work Australia was set up in 2009 as an independent Australian Government statutory agency which is jointly funded by the Commonwealth, state and territory governments with the primary responsibility to lead the national policies development on work health and safety and workers' compensation arrangements across Australia. Japan adopted the ILO OSH MS Guidelines on OSH management system (ILO-OSH 2001) into their own created JISHA OSHMS Standards 2006 (ILO-OSH 2001). Japan Industrial Safety and Health Association (JISHA) initiated the OSH management systems (OSHMS) to enhance workplace safety and health and to prevent industrial accidents. JISHA developed the JISHA OSHMS Standards 2006; thus becoming the first external certification body for OSHMS in Japan (JISHA, 2014). As for the world ISO standards, the International Organization of Standards (ISO) is presently working on the newly-proposed world standard for OSH management system which is the ISO45001: Occupational Health and Safety Management Systems—Requirements which is the ISO version of the OHSAS 18001 standards (ISO, 2013) which is expected to be published in October 2016.

Occupational Safety and Health Malaysian Standards

OSH management in Malaysia is governed by the Department of Occupational Safety and Health (DOSH) (DOSH, 2013) under the the Malaysian Occupational Safety and Health Act 1996 (Act514) supporting the Factory and Machineries Act, 1967. Apart from DOSH Malaysia being the enforcement body, other government agencies such as Social Security Organisation (SOCSO), Department of Fire Rescue Services, Local Town Councils, Ministry of Health and Ministry of Human Resources are entrusted with matters associated to saving of lives, public health among workers and society (Shariff, 2011). The Malaysian OSH laws enforcements were very much focused on the construction, mining and quarry industry for the past fifteen years (1997 – 2012) due to the rapid national development and increase of nationwide construction projects. Implementation and enforcement of OSH management and laws in the transport sector was very minimal then as there were not many numbers of vehicles (public and private) and the number of road fatalities/accidents were relative less as compared to those former industries. There was no emphasis from any parties, agencies and the national government on the enforcement of the OSH laws in the transport industry in Malaysia until the recent drastic increase on road fatalities and tragedies and commuting accidents with high numbers of deaths involving public and workers that occurred in the last 7 years in 2007–2014. Additionally, workers in the logistics industry also suffer high rate of occupational accidents as reflected in considerable share of occupational fatalities, lost-time injuries and workers compensations (Au Yong and Mohamad Zailani, 2011; Ismail et al. 2010; SOCSO, 2009 – 2012; Lind and Nenonen, 2008).

Malaysian MS1722: 2007 OSH Management Standards

Malaysia has established its new OSH management standards, the MS 1722 : 2011—Occupational Safety and Health Management System—Requirements. This standard is an adaptation of the OHSAS 18001 that serves as the primary basis for the development OSH systems in Malaysian organisation using systematic approach to control and improve occupational, health and safety performances; to protect employees from work hazards, injuries, ill health, diseases, near misses and fatalities; and to comply with the Malaysian legal requirements and regulations: Occupational, Safety and Health Act 1996 (Act514), Factory and Machinery Act 1967 (Act139) and Petroleum (Safety Measures) Act 1984 (Act302).

Transport Industry Sector

The transport sector is one of the growing sectors in the European economy; it is highly affected by changes such as growing proportion, migrants, part-time workers, rapid ageing workforce and many technological innovations. Transport workers are exposed to multiple physical risks, suffer violence; and many of these transport workers have unusual long working times, repetitive and monotonous works. The consequences are high accident rates, musculoskeletal disorders, stress and fatigue (World Bank Report 2013, European Risk Observatory Report, 2009). The World Bank's concern with transport safety is not new. Recent estimates in 1999, estimated 800,000 people died as a direct result of road accidents. WHO reported even higher with 1.2 million people; quoted "about 85 percent of these deaths occurred in the developing and transitional economies; 50 percent were in urban areas. Additionally, an estimated 30 million people were injured in road accidents worldwide, of which 75 percent were in urban areas. For the developing countries, the economic cost of accidents is estimated 2 percent of their gross domestic product (GDP). Road accidents currently rank ninth as a cause of deaths worldwide, and are expected to rise to sixth by the year 2020; with drivers and passengers of motorcycles and three-wheel motor vehicles accounted for 10 percent. In some East Asian cities, such as Kuala Lumpur up to two-thirds of those injured were from road accidents. Public

transport passengers, drivers of trucks and buses have particularly bad accident records (World Bank Report, 2013; ILO 2013; European Risk Observatory Report, 2009). Malaysia recorded 23–28 fatalities per 100,000 population for the past ten years as compared to other nations with 4–5 fatalities per 100,000 (MIROS, 2013). In Malaysia, the increasing road accidents caused concerns from the public and relevant ministries. The huge economic loss due to road accidents is a waste and strategies needed to be embarked to reduce the number of accidents and fatalities (Karim, Marjan and Abdullah, 2003). Malaysian transportation companies did not have safety management systems; inadequate personnel trainings; machineries were not provided with appropriate tools and equipment for emergency response during mishaps; and employees lacked general awareness and basic knowledge on emergency response (Aini et al., 2001).

The transport and storage industry in Malaysia contributed 8.4% of GDP in Malaysia in 2008. From the laborforce survey in 2008, out of the 11.2 million employed persons, Transport, Storage and Communications sector employed 0.54 million persons (5.1%) of the work force (Au Yong and Mohamad Zailani, 2011); with manufacturing sector (1.96 million, 17.6%); construction sector (1.0142 million, 9.1%). The workers in the road transport sector generally are generally lorry and van drivers, taxi drivers and chauffeurs, bus and coach drivers, motorbike delivery services and mostly employees who commute from home to work in their own cars or vehicles. The common public transport issues and challenges are dominantly: rails and LRT, buses, express buses, taxis, road safety issues, highway cracks, bus transportation organisational issues, enforcement issues from the transport authorities and non-sustainability of transport business stated by Sadullah (2012). Thus, Sadullah (2012) reiterated the needs for a sustainable transportation system in Malaysia that “allows the basic access needs of individuals to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations”.

Occupational Safety and Health Management in Transport Industry

Managing occupational safety and health matters in the road transport sector can be challenging because drivers work alone, away from their base, and have to contend with traffic danger in addition to many other risks that are difficult for them to control (Karim, Marjan and Abdullah, 2003). But risk management measures can be successful if they take account of how the sector operates in practice, as well as the characteristics of drivers themselves and the way they work (Lee, 2011; Lee 2012; Lind and Nenonen, 2008).

One main characteristic of the transport sector is the mobility of workers and their workplace (ILO, 2003; 2014). Their workplace move with them to different surroundings (when travelling in a vehicle to different locations); or the workers themselves may be constantly moving and working at different locations (Au Yong and Mohamad Zailani, 2011). As a result, due to their working conditions, a high proportion of the risks may be unforeseeable. This needs to be taken into account when assessing and monitoring their situation. Some transport workers also work in customer service activities, where risks are multiple, but awareness of safety and health issues is low. Some of these tasks are considered as non-transport related, for example cleaning tasks on trains, ships and buses, and may therefore be left out from risk assessment and prevention” (Au Yong and Mohamad Zailani, 2011). Working in the road transport sector requires high levels of professional skill and competence (ILO, 2014). For example, drivers of long-distance road haulage vehicles must not only be capable drivers but they must also be able to carry out basic administrative works, do load/unload operations, repair technical problems, possess language skills, act as „ambassadors“ for their company in other countries and to deliver their goods in time, regardless of weather and road conditions. They may also transport dangerous substances or fragile goods that require extra care and responsibility (ILO, 2014; Report VI ILO 2003).

Generally, road accidents in transportation industry involve not just the driver alone but third parties as well, particularly public transport users, other road users and the public (MIROS, 2013; Lee, 2011). Investigations revealed significant weaknesses in the management of OSH system by transport operators. In 2007, Malaysia Institute of Road Safety initiated the Code of Practice for Safety, Health, and Environment (SHE) in the Transport Sector (MCP1/2007) for public transport (MIROS, 2013). This code of practice was an adaptation from the Malaysian MS1722: 2007 deploying the five main OSH management principles: Policy, Quality Assurance System, Planning and Implementation, Evaluation, Actions and Improvement. However, in 2010, Occupational Safety and Health Industry Code of Practice for Road Transport Activities 2010 (ICOP 2010) was launched replacing the Code of Practice for Safety, Health and Environment for the Transport Sector (MCP 1/2007). This new industry code of practice (ICOP) is interlinked with the Malaysian OSH Act 1994 and its regulations. Despite the two

different approaches (MCP1/2007 using MS 1722 and ICOP using legal enactment), both of these COPs shared common reference terms: roads encompassing public and private roads; vehicles encompass but not limited to: a) commercial; b) public service; c) goods; and d) tourism vehicles; bearing the same terminologies assigned under the Road Transport Act [Act 333]; Commercial Vehicles Licensing Board Act 1987 [Act 334]; and Tourism Vehicles Licensing Act 1999 [Act 594].

Summary of Findings

Based on the intensive literature review, a summary was done to highlight the presence of OSH and transportation hazards as shown in Table 1: Identification of Hazards in Transport Industry.

Hazards in Transport Industry (MIROS, 2013)	Hazards in Transportation (ILO 2003; 2013; WHO 2003; WHO 2014)	Hazards in Transportation from past research and publications
Driver falling asleep while driving due to exhaustion and fatigue	Drivers fatigue	Ashraf and Naseem (2003): Improper work place design Ill-structured jobs Mismatch abilities with job demands Adverse working environment, Poor human-machine system design Lack of management programs Goetsch (2007; 2011): Slips and falls; Impacts and collisions Falling objects; Fall from heights Electrical hazards Goetsch (2007; 2011; 2014): Chemical hazards; Physical hazards Biological hazards; Psychosocial hazards; Ergonomics Electrical and Mechanical hazards Au Yong and Mohamad Zailani (2011): Mobility hazards Long distance driving hazards Indirect transport hazards MIROS (2009 – 2012): Lack awareness Human hazards; Road hazards Lee, 2012; NIOSH, 2013; DOSH, 2013: Commuting accidents; Road accidents Hazards in transport activities
Driving while drowsily and exhaustion	Incapable drivers	
Dangerous driving	Lack of drivers competencies	
Not wearing seat belt	Low level of professional skills	
Loss of control of vehicle due to brake failure	Work related stress	
Slipped of vehicle due to slippery road	Psychosocial risks - Human sufferings - Mental problems - Burn out - Economic losses - Discomfort	
Emergency exit door not functioning	Bad road conditions	
Worker slipped on automotive workshop floor because of slippery floor surface caused by spilt oil or grease	Weather conditions	
Noise resulting from repair of vehicle	Working conditions	
Fire caused by inflammable gas related activity such as welding;	Poor medical facilities	
Struck by falling goods while loading and unloading from vehicle	Occupational diseases Ill-health Illnesses and diseases	

Table 1: Identification of Hazards in Transport Industry

Subsequently, Table 2 shows the OHSAS1800 and MS1722 standards on OSH management; and the MCP 1/2007 and ICOP Road Transport Activities 2010.

Occupational health & safety management systems –Requirements OHSAS 18001: 2007	Malaysian Standard Occupational Safety & Health Management System–Requirements. MS1722: 2011	Code of Practice for Safety, Health, and Environment (SHE) in the Transport Sector MCP 1/2007	Occupational Safety and Health Industry Code of Practice for Road Transport Activities 2010 ICOP 2010	
4.1 General Requirement 4.2 OH&S policy 4.3 Planning 4.3.1 Hazard identification, risk assessment & controls 4.3.2 Legal & other requirements 4.3.3 Objectives and programme(s) 4.4 Implementation & operation 4.4.1 Resources, roles, responsibility,	4 OSHMS Requirement 4.1 Policy 4.1.1 OSH policy 4.1.2 Employee participation 4.2 Organizing 4.2.1 Responsibility & accountability 4.2.2 Competence & Training 4.2.3 OSHMS documentation 4.2.4 Communication 4.3 Planning & implementation	1 Introduction 1.1 Introduction 1.2 Objectives 1.3 Scope 1.4 OSH Act 1994 2 Implementation & concepts 2.1 Introduction 2.2 Policy 2.3 Quality assurance & safety 2.4 Planning & implementation 2.5 Evaluation 2.6 Action & Improvement	1 General 1.1 Preliminary 1.2 Scope 1.3 Objectives 1.4 Interpretations 1.5 Legal Requirements 2 OSH programs 2.1 Safety & health policy 2.2 SHC 2.3 SHO 2.5 HIRAC 2.6 Dissemination information 2.7 Documentation	4.3 Safety Maintenance Improvement & plan 4.4 Safety inspection, manitenance & repair facilities 4.5 Maintenance records 4.6 Traning & education for maintenance & safety inspections

<p>accountability & authority</p> <p>4.4.2 Competence, training & awareness</p> <p>4.4.3 Communication, participation & consultation</p> <p>4.4.4 Documentation</p> <p>4.4.5 Control of documents</p> <p>4.4.6 Operational control</p> <p>4.4.7 Emergency preparedness & response</p> <p>4.5 Checking</p> <p>4.5.1 Performance measurement & monitoring</p> <p>4.5.2 Evaluation of compliance</p> <p>4.5.3 Incident investigation, nonconformity, corrective action & preventive action</p> <p>4.5.4 Control of records</p> <p>4.5.5 Internal audit</p> <p>4.6 Management review</p>	<p>4.3.1 Initial review</p> <p>4.3.2 System planning, development & implementaton</p> <p>4.3.3 OSH Objectives</p> <p>4.3.4 Hazard prevention</p> <p>4.3.5 Management of Change</p> <p>4.4 Evaluation</p> <p>4.4.1 Performance monitoring and measurement</p> <p>4.4.2 Investigation of work-related injuries, disabilities, ill-health disease & near misses & impacts on OSH performance</p> <p>4.4.3 Audit</p> <p>4.4.4 Management review</p> <p>4.5 Actions for improvement</p> <p>4.5.1 Preventive & corrective actions</p> <p>4.5.2 Continual improvement</p>	<p>3 Standard Operating Procedures (SOP)</p> <p>3.1 Introduction</p> <p>3.2 Drivers management</p> <p>3.3 Vehicles management</p> <p>3.4 Journey Management & Risk</p> <p>3.5 Document management system</p>	<p>& record keeping</p> <p>2.8 ERP</p> <p>2.9 Monitoring</p> <p>2.10 Auditing</p> <p>2.11 Continual Improvement</p> <p>3 Driver Management</p> <p>3.1 Driver intake procedure</p> <p>3.2 Drivers categorization</p> <p>3.3 Training and change of thoughts behaviors</p> <p>3.4 Driving procedure</p> <p>3.5 Driving hours and working hours limit</p> <p>3.6 Drivers rotation</p> <p>3.7 Drivers monitoring</p> <p>3.8 Driver health & welfare</p> <p>4 Vehicle management</p> <p>4.1 Daily checks</p> <p>4.2 Vehicle fault recording & reporting</p>	<p>4.7 Vehcile license</p> <p>4.8 Vehicle Cleanliness</p> <p>5 Journey & risk management</p> <p>5.1 HIRAC</p> <p>5.2 Identification of hazards & routes risks</p> <p>5.3 Trip schedule</p> <p>5.4 Rest & Recreation</p> <p>5.5 Trip monitoring</p> <p>5.6 Passengers goods & baggage management</p> <p>5.7 ERP</p> <p>5.8 Reports & accident investigation</p> <p>5.9 Complaints management</p>
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Table 2: Comparison of OSH management requirements and Codes of Practices in Transport Industry

Conclusion

Occupational safety and health (OSH) matters in the transport industry are perceived as solely the government responsibility; and that OSH is governed by national laws and codes of practices. Not much concerted efforts and trainings are given to the public on OSH laws and programs; and more so for the employees and workers on the proper ways of carrying out jobs in their productive employment. Transport industry is an equally hazardous industry just like the chemical and construction industry; and it is more critical when it involves public and passenger safety. Despite the increasing numbers of fatalities and injuries, not much progress and effective controls are being executed towards risks mitigations and accident prevention in the transport industry. The OSH codes of practices, standards, and the extent of OSH implementation is far from the expected goals itself. Adherence and enforcement are also lacking in the real transport industry in Malaysia. In conclusion, there is an urgent need to enforce OSH legal requirements and codes of practices on OSH management, trainings, monitorings, and effective implementation in accordance with the ILO Decent Work Agenda. OSH is complex; it requires collective attention to a broad aspect of human, budgetary and technical variables as reported by ILO (2014), MIROS (2013), and all researchers in their studies.

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