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OCCUPATIONAL SAFETY AND HEALTH IN THE SUSTAINABLE  
DEVELOPMENT OF VINACOMIN CORPORATION

Bachelor's Thesis 2015

**ABSTRACT**

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In recent years, in spite of the fact that the government has paid their attention on occupational safety and health (OSH), OSH performance is still viewed as a big challenge to many enterprises in Vietnam. The number of occupational accidents and diseases are still on the rise that causes a great deal of devastating damages on the development of enterprises, including Vinacomin Corporation.

In the scope of this thesis, the overview of the current situation of occupational safety and health (OSH) in Vinacomin Corporation will be given. Furthermore, this thesis also focuses on analysing the reasons and consequences of occupational accidents and diseases that affect the Vinacomin's operation.

The objective of this thesis is to study the impact of OSH on the sustainable development and to give some suggestions to improve the quality of OSH in Vinacomin. The study was conducted based on qualitative research. Specifically, interview was used as data collection method and the answers from interviewees were analysed by utilizing thematic analysis method.

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## **1. INTRODUCTION**

It first starts with my interest in the field of improving sustainable development in enterprises by strengthening occupational safety and health. Anything involved in this area could attract me a great deal. Not just stopping at searching basic information about safety at work, I have tried to gain more specialized knowledge by doing the internship in the Ministry of Labour, Invalids, and Social Affairs (MOLISA) in Vietnam. Moreover, I acquired a variety of practical experiences on this field as I had opportunities to participate in some workshops and study tours about occupational safety and health organized by ILO (International Labour Organization). From these practical business trips, I have perceived that protecting and promoting the health and safety for employees, contractors and the communities play a significant role that it would be fundamental for building sustainable enterprises. Especially in Vietnam, it is very essential for all enterprises to focus on occupational safety and health as Vietnam is enhancing its efforts to integrate its economy to world economy. So I decided to choose this topic for my thesis.

### **1.1 Profile of VINACOMIN Corporation**

The Vietnam National Coal - Mineral Industries Corporation (Vinacomin) was established on October 10th, 1994 in Quang Ninh, Vietnam. It mainly operates in different high-risk sectors such as coal industry, power industry, mining chemical industry, construction materials, investment construction and machinery. Specifically, it is considered as the dominant coal producer with an output of exceeding 95% of total coal production in Vietnam. This corporation possesses approximately US\$ 470 million capital and US\$ 974 million of shares, generates US\$ 3.26 billion of revenue and regarded as the 9<sup>th</sup> largest company in Vietnam in 2012 (VEN, 2012). Moreover, Vinacomin is also considered as one of most significant employers in Vietnam. In 2011, there were nearly 130,000 workers in the

corporation, in which about 90,000 employees was working in mining excavation companies (VEN, 2013).

Over the last 10 years, both employers and employees of Vinacomin Group have put continuous efforts, made initiative and creative spirit, expressed their determination and strength to transcend difficulties, moving forward and achieving the planned targets in pursuing sustainable development. (Vinacomin, 2013)

## **1.2 Research Problems**

### **1.2.1 The problems of OSH in Vietnam**

The overall status of safety and health at work in Vietnam is alarming and deteriorating with the rapid appearance of new enterprises and economic activities. In 2012, the number of enterprises operating in Vietnam is over 500.000 enterprises, in which 95% is small-medium sized enterprises. According to statistics provided by Ministry of Labours, OSH is happening to be more and more challenges for Vietnam due to its nature of severe injuries, occupational diseases, losses of lives and its impacts on the socio-economic development, which cannot be compared to those laid by a war or influenza in the world. Every year, in Vietnam there are about 5000 occupational accidents on average, killing 500 people and injuring more than 5000 people (see Table 2). This is still inadequate statistics. According to competent authorities and scientists, in the industrial sector of Vietnam, there are about 40,000 occupational accidents/ year. There is annually about 1000 or 1500 people more who contract occupational diseases. A million workers and employers were trained on occupational safety and health in 2011-2015. However, the numbers of reported accidents and fatal is still on the rise. A recent report by Ministry of Health found that only 18-20 per cent of high-health-risk enterprises are monitored on occupational environment. Only 22-25 per cent of the workforce has access to regular health checks and fewer than 10 per cent of



workers in high risk work environments have access to occupational health checks. (MOLISA, 2013)

According to the report from the Department of Labour, in the period 2011 - 2013, there are over 6,400 people who are injured on the average, including 600 fatalities due to occupational accidents. And compared with the period 2006 - 2010, the number of occupational accidents increased by 10%, the number of deaths increased by 5%; however, the incidence of fatal occupational accidents is 7.017 / 100,000 workers, decreased by 11.96% over the period 2006-2010 (the frequency is 7.97 / 100,000 employees). Moreover, in the period 2011- 2013, new cases of occupational diseases increased by an average of 12, 27%; however, the rate decreased by 11.96% over the period 2006 - 2010. In general, in 2015, Vietnam aims to lower the rate of occupational disease by 5% in the period 2011-2015 compared with 2006-2010. (See Table 1) (MOLISA, 2013)

Even though the perception of occupational safety and health is better in recent years, there are still a number of problems and shortcomings that enterprises have to encounter with on the path of pursuing sustainable enterprises. Specifically, a majority of enterprises in Vietnam are not complying with the Vietnamese Labour Code. The violations include long working hours, lack of work contracts and insurance, withholding of maternity benefits, overtaxing of pregnant workers, unstable employment are increasing rapidly. Even the issue of employing child labour occurs frequently. Besides, a number of enterprises operating in fields of construction, mining exploration, or transportation do not conform to the labour standards that have caused thousands of serious occupational accidents and have damaged state assets as well as affecting the enterprises' operations. Based on the performed surveys in different enterprises in Vietnam, the number of measured indicators on the level of dust, noise and temperature is exceeding the standard of occupational safety and health that affects seriously the health of employees.

*Table 1: Statistics on the occupational diseases in Vietnam*

	In the period of 2006- 2010	In the period of 2011- 2013	Comparison between two periods
Number of new cases	863	968	12,27%
The frequency of contracting occupational accidents/100.000 people	10,51	9,25	-11,96%

*Table 2: Statistics on the occupational accidents in Vietnam*

	In the period of 2006-2010	In the period of 2011-2013	Comparison between two period
Number of occupational accidents	5809	6456	11%
Number of fatal accidents	516	539	5%
Number of victims	6040	6669	10%
Total of deaths	576	602	5%
The frequency of fatal occupational accidents on 100,000 workers	7,97	7,017	-11.96%

Moreover, another problem in Vietnam is that the employees are not trained carefully and sufficiently about the regulations of occupational safety and health. In fact, the trainings are still superficial and not able to be applied. As a result, either employers or employees lack awareness and knowledge about occupational safety and health, as well as the connection between work conditions and productivity. Furthermore, with the emergence of many private enterprises, working conditions have particularly deteriorated for women that considered as very unstable and low status work. Low compliance with the labour regulations has caused situations that women lose some special protection and rights such as protection during pregnancy and maternity, anti-discrimination provisions.

On the government's side, the Ministry of Labours Invalids and Social Affairs (MOLISA) is responsible for the implementation of the Government's labour policy that does not have capacities to control and manage the increasing number of private enterprises in Vietnam. Therefore, they could not able to supervise all the enterprises in order to promptly prevent the shortcomings about safety and health at work. In addition, Vietnam still does not have a tradition of employer's representatives. There are no associations of employers which have influences on and speak on behalf of employers in the areas of occupational safety and health.

### **1.2.2 The problems of OSH in Vinacomin**

In recent years, Vinacomin has paid a considerable attention on occupational safety and health operation. With nearly 96.000 employees working in high-risk industry, they perceived that occupational safety and health plays significant role in their operation. Apparently, not only does it greatly affect the productivity and the efficiency of Vinacomin, but also impacts the motivation of employees which is considered as the key factor in the sustainable development of Vinacomin. Therefore, they have conducted a great deal of strong measures to prevent the

appearance of occupational accidents and diseases. For instance, they has deployed several OSH inspections periodically or extraordinarily, organized the periodical medical examination and the training on OSH once a year, provided personal protective equipment as well as different kinds of machinery, materials and substances that meet the strict OSH equipment.

Although many unceasing efforts to prevent injuries are performed, a number of occupational accidents and disease still has occurred and increased. Specifically, 2011 was the period as Vinacomin had the lowest number of the fatalities and occupational accidents within the past eight years (only 17 serious occupational accidents, a decrease of over 50 percent compared with 2010). However, compared to the year of 2011, the number of occupational accidents increased during the period of 2012 – 2013 (See Table 3), in which occupational accidents and fatalities mainly occur in the pit. (See Table 4) (VINACOMIN, 2014)

Consequently, these occupational accidents have caused serious damage to Vinacomin in term of physical assets and loss of life. To perform remedial measures, they had to spend a huge amount of budget in remedial work, such as compensation and allowances for the workers. Thus, in the upcoming years, Vinacomin still has many problems needed to be solved in order to decrease 10 percent of occupational accidents year on year and establish the strategy of "clean-safe-economical and modern pits". (VINACOMIN, 2014)

*Table 3: Statistics on the occupational accidents in Vinacomin**During the period of 2010- 2013*

	In the year of 2010	In the year of 2011	In the year of 2012	In the year of 2013
Number of occupational accidents	35	17	30	26
Number of fatalities	42	19	34	30

*Table 4: Statistics on the occupational accidents occurring in the pit and outside the pit**During the period of 2010 - 2013*

	In the year of 2010	In the year of 2011	In the year of 2012	In the year of 2013
Number of accidents/ Number of fatalities in the pit	28/35	09/11	24/28	22/26
Number of accidents/ Number of fatalities outside the pit	07/07	08/08	06/06	04/04

### **1.2.3 The importance of OSH in the enterprise's development**

Vietnam is accelerating rapid industrialization and is experiencing a major transition from a planned economy to a market economy. As a result, it is very significant for employers and workers to emphasize on the safety and health at work that this issue could affect the enterprises' reputations and images on international market.

The number of occupational accidents and damages has great effects on the effectiveness of a business. As the number of accidents and damages are reduced and the poor health is improved, it would lead to the decrease in costs and a bigger availability of people and plants. As a result, enterprises will be able to improve their efficiency and thereby strengthen the effectiveness of business.

Occupational safety and health should be considered as an important factor that it could be able to solve with limited resources as well as permanent competition in the market. Moreover, it has several great impacts on enterprises' operation such as: avoiding expense of accidents, reducing insurance premiums or compensate payments, maintaining the reputation, complying with law, thus avoiding sanctions from government bodies, increasing business continuity, because fewer incidents and accidents would reduce the length of business disruptions), strengthening employees' commitments to business, enabling enterprises to meet the customers' occupational safety and health expectations, assist demonstrate that an enterprise is socially responsible, maintaining investor confidence, enhancing positive stakeholder engagement.

## **1.3 Research Objective**

### **1.3.1 Research aim**

The social benefit of good occupational safety and health is that the government could save a great amount of state budget because they do not have to deploy various

occupational safety and health programs and activities to prevent risks at work. Moreover, as the enterprises implement occupational safety and health effectively, the productivity and efficiency will be fostered and the profit will be increased, thereby the society could benefit from the increase in amount of tax payments. In addition, every worker in Vietnam does not have to suffer from the pain and injuries after they come back home from work. Every family does not have to suffer from losing breadwinner caused by occupational accidents.

### **1.3.2 Research objective**

The main objective of this thesis is to study the field of occupational safety and health and its impacts on the development of VINACOMIN Corporation. Moreover, it also emphasizes on the sustainability, as well as the relationship between the OSH and the sustainable development in VINACOMIN Corporation. Finally, this thesis will provide some important recommendations to solve several current problems that the enterprises are facing in VINACOMIN. Therefore, the enterprise could be able to protect their workers from accidents and disease as well as creating safer, healthier working environments, thereby the productivity and efficiency will be fostered and business competitiveness will be strengthened.

Sub-objective: By focusing and enhancing occupational safety and health, enterprises could strengthen their position in business and make a significant contribution to the facilitation of international trade.

### **1.4 Research questions**

- How does the occupational safety and health impact on the Vinacomin Corporation's development?

Sub-questions:

Along with these primary research questions, the following research questions are also necessarily to be answered:

- What is the current situation of occupational safety and health in Vinacomin Corporation?
- What are the problems of occupational safety and health that are occurring in Vinacomin Corporation?
- Why does all the Vinacomin Corporation need to focus and improve occupational safety and health?
- What are the social and business benefits of good occupational safety and health in Vinacomin Corporation?
- What are the recommendations to improve the situation of occupational safety and health in Vinacomin Corporation?



## **2. OCCUPATIONAL SAFETY AND HEALTH**

In this chapter, the three main topics of this research will be particularly analyzed, including occupational safety and health (OSH), occupational diseases and accidents, and the relationship between OSH and the sustainable development of enterprises. Both concept of OSH and occupational diseases and accidents will be explained thoroughly, so the enterprises would have a comprehensive perception of OSH as well as understanding how to recognize occupational accidents and diseases to prevent it. Besides, this study will also take a look at the close relationship between OSH and the sustainable development of enterprises, especially the impact of OSH could affect an enterprise's operation.

### **2.1 Occupational safety and health**

#### **2.1.1 Definition of OSH**

Occupational safety and health is considered as a multidisciplinary activity that aims at: protecting and promoting the health of employees by preventing and managing occupational diseases and accidents, as well as by eliminating dangerous occupational elements and conditions to health and safety at work; improving and promoting healthy and safe at working environment; strengthening the physical, mental and social well-being of employees and assisting for the maintenance and the increase of their working capacity, as well as professional and social development at work; enabling employees to perform socially and economically productive lives and to contribute considerably to sustainable development of enterprises (WHO, 2001: 13). Besides, occupational Q safety and health is viewed as one of the most crucial factors in human concern that presents the maintenance and promotion of the highest level of workers' mental, physical and social well being in the course of work. (Takele & Mengesha, 2006)

On the other words, occupational safety and health is defined as the combination of the prediction, identification, assessment and control of hazards appearing in or from

the workplace that could affect negatively the health and well-being of workers, considering the possible impact on the surrounding communities and the general working environment (Friend & Khon, 2007). Specifically, the meaning of “hazard” in this field could be understood as a component with the inherent potential to cause accident or deteriorate the people’s health. Workplace hazards may take various forms, for instance: chemical, biological substances or agents, machines, tool, or ambient factors (noise, vibration, dust or fine particles, or temperature), or others factors of organization, namely psychological (ILO, 2008). Moreover, Chaturvedi (2007) described that occupational safety and health is considered as a management discipline that relates to ensure the health, safety and welfare of workers, enterprises, organizations and those who are influenced by the business.

However, occupational health issues are often paid less attention than occupational safety issues, for the reason that the former are more difficult to encounter and control than the later. When health is addressed in workplace, it means that it is also safety, because a healthy workplace is defined as a safe work place. The converse, nevertheless, may not be correct since a so-called safe workplace is not necessarily also a healthy workplace (ILO, 1996).The important point is that both health and safety should be performed properly in every workplace and every activity. By and large, the definition of occupational safety and health mentioned above includes both safety and health in their contexts. (Leman, 2013)

### **2.1.2 Key principles in occupational safety and health**

There are a number of key principles in the field of occupational safety and health. All these principles of international labour standards are all built to obtain an important objective that every work all should be performed in a safe and healthy environment. (Chaturvedi, 2007)

In this regard, occupational safety and health is mentioned as an extensive multidisciplinary field that includes physiology and toxicology, physics and chemistry, as well as technology, economics and other areas, related to various

industries and activities. (ALLI, 2008). In spite of its variety of concerns and interests, some basic principles in this field could be identified. Specifically, the first principle is that all workers have rights. For instance, work should perform in a healthy and safe place; condition of work should be appropriate with worker's health and human dignity; and work should provide real possibilities for personal accomplishment and services to society (Takele & Mengesha, 2006). Either workers or employers must assure that these rights are protected and must try to build and preserve decent working conditions as well as a decent working environment. The second basic principle is that occupational safety and health policies should be built. And these policies must be deployed and undertaken at either the national or enterprise levels. Furthermore, a program of occupational safety and health must be established in national level. It must be performed, controlled, assessed and periodically viewed. The next principle is that all the occupational safety and health programmes and policies should target at both realms of prevention and protection. In this respect, all efforts should put prevention as the first priority, and working environments should be designed to be healthy and safe. (ALLI, 2008)

Moreover, promoting improvement of occupational safety and health is also a fundamental principle. It is essential that national laws, regulations or standards to prevent occupational accidents and diseases are ensured to adjust periodically to the changes of social, technical and scientific progress. Thus, it is likely to be done most effectively and efficiently by the improvement and the implementation of a national policy, national system, as well as national programme (ALLI, 2008). In addition, information is very crucial for the improvement and the implementation of effective programmes and policies that is considered as one of the basic principles in occupational safety and health. Particularly, the dissemination and the collection of correct information on occupational safety and health, the control of workplaces, inspection of compliance with policies and regulations, and other relevant activities are substantial to the establishment and enforcement of policies and regulation effectively. Furthermore, education and training are also considered as the crucial factors of healthy and safe working environments. Either employers or employees

should have perception of the significance of building safe working environment. Specifically, trainers should be trained and educated in areas related to specific industries; thereby they could able to solve the specific occupational health and safety issues. (Leman, 2013)

Besides, all workers must have rights to have ideal occupational health services that aim to protect and improve workers' health as well as working conditions. Moreover, various services in term of compensation, rehabilitation and curative should be made available to all workers who suffer occupational accidents or work-related diseases. (ALLI, 2008) Obviously, all efforts must be undertaken to minimize the consequences of occupational accidents and diseases Another vital basic principle in occupational safety and health is that employees, employers and authorities would have specific responsibilities, obligations and duties. For instance, employees should comply with all established regulations, employers should offer safe and healthy workplaces and the authorities should monitor, inspect and periodically revise and update the occupational safety and health policies. Finally, policies and regulations must be implemented effectively. A system of monitor and inspection should be performed seriously in order to secure the enforcement with occupational safety and health legislations properly. (Chaturvedi, 2007).

### **2.1.3 Interaction between work and worker's health**

The social and economic significance of work receives a substantial attention for the reason that a vital function of work in any society is to produce and allocate products or services. Far less attention is paid to the significance of work to each person, but it is obvious from the recent researches that work plays a substantial and psychological role in the establishment of self-esteem and a sense of order (WHO, 2001). In this respect, work is considered as a potential force in forming a person's sense of identity. It could lend the motivation to existence and build the cyclical patterns of day, week, month or year. It is also convinced that work for which there is no economic benefit, such as care for the aged and voluntary work, has its own rewards and contributes to person satisfaction (Takele & Mengesha, 2006).

### **Two-way interaction**

There is a constant two-way interaction between a worker and the physical and psychological working environment. Specifically, the working environment could be able to affect the worker's health either positively or negatively. The productivity, in turn, would be influenced by the worker's status of physical or mental well-being. Apparently, work is a crucial element in worker's health promotion. For instance, those who are partially disabled workers could adapt to the work by performing tasks suited to their physical or mental states, thus it would likely to foster their working effectiveness (WHO, 2001). Nevertheless, the reality that work could have a positive impact on the workers' health has not been completely exploited, so the understanding of work physiology and ergonomics should be further focused and developed in order to apply it to benefit workers' health. (Friend & Khon, 2007)

### **Unemployment**

The situation of unemployment could cause the adverse effects on the worker's physiological and mental health. If this situation still continues, the worker's health will steadily deteriorate and chronic disease will happen. Several mental or financial problems originated from the job loss could spread to their family members (WHO, 2001). In some developing countries, since unemployment could result in considerable impacts that spread to other workers' families and affect the community immediately, a person in a well-paid job will have a significant influence in the society. A worker's health probably suffers well before actually losing the job. Either feelings of job insecurity or understanding of imminent job loss have been associated with physical and mental health complaints. (Leman, 2013)

In the same way, those who have ever had the chance to be employed, for instance, as a result of unavailability of jobs, would have no opportunity to increase an identity or sense involving with work that is very essential for psychological and social well-being. Therefore, these people are not able to approach to health messages in working environment and probably unconscious of the positive linkage

between work and health. Moreover, since they have great amount of spare time, occasionally associated with depression or stress, those who have never be employed would tend to consume cigarettes, alcohol or even drugs rather than the employed people. (WHO, 2001)

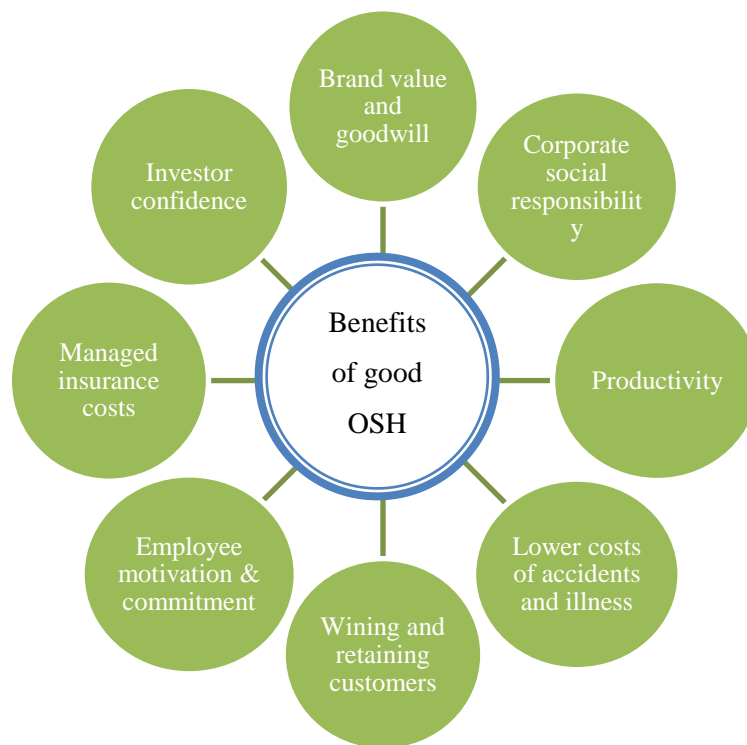
#### **2.1.4 The business benefits of good occupational safety and health (OSH)**

Occupational safety and health is not only very essential for business, but also being as a social responsibility and legal obligation. A majority of enterprises consider OSH as an essential part to prevent workers from being harmed or suffering injuries through work activities. (ALLI, 2008)

First, occupational safety and health is regarded as indispensable factor of a good business because it brings about a range of benefits for enterprises. Particularly, it proves that a business is socially enterprises; improving and maintaining either brand image or brand value; increasing the productivity of workers; strengthening commitment of employees and stakeholders to the company; establishing a more proficient and healthier labour force; diminishing business costs and disruption; creating an opportunity for enterprises to meet the customers' OSH expectations and motivating the workers to stay longer in active life (See Figure 1) (OSHA, 2007). As a result, every enterprise could obviously obtain several benefits by investing in OSH. Simple improvements would improve the competitive advantages, profitability as well the motivation of workers. The performance of an effective OSH management system will definitely offer a fundamental framework to minimize or prevent occupational accidents and diseases. (Dagenaisetal, 2008)

Although a majority of enterprises has paid more attention on improving OSH system, the commercial motives could be very different for small and large enterprises or organizations. With regard to large organizations, they are expected to describe ever-higher standards of administration and greater transparency in monitoring and reporting OSH practices. The integration of operating business in a market driven economy and society enables enterprises to recognize the substantial

benefits derived from applying OSH performance into their business model. Specifically, these benefits include the enhancement in brand and image value, as well as the reputation of the enterprise (OSHA, 2007). Moreover, enterprises could maintain and promote the investor reliance, as well as improving positive stakeholder engagement with business. Besides, the establishment of corporate social responsibility (CSR) commitments is among the gains from good OSH system, in which CSR regards how enterprises could take consideration of its economic, environmental and social impacts in their operation. (Dorman, 2000)



*Figure 1: Benefits of good occupational safety and health*

With respect to small and medium sized enterprises, they are starting to realize the benefits of good OSH, and the costs of poor OSH performance. Particularly, there are some common noticeable aspects in term of preventing business disruption and loss of key workers, motivating workers and maintaining their commitment, the

affordable capacity of paying insurance, and meeting the OSH expectation of business stakeholders and clients so as to maintain contracts. In recent years, more and more small and medium sized enterprises seeking to obtain sustainable business development and stability perceive how their OSH implementation can contribute. Apparently, investing in good OSH systems boosts the competitive advantages of the enterprises that also strengthen the potential to maintain the relationship with clients. (OSHA, 2007)

## **2.2 Occupational accidents and diseases**

### **2.2.1 Definition of occupational accidents and diseases**

Generally, occupational health and safety in the workplace has steadily enhanced and improved in many developed countries in recent years. Nevertheless, the current situation of occupational safety and health in some developing countries is comparatively not positive, as a result of insufficient accident and disease awareness and perception, recordkeeping and reporting the operations. (Dembe, 1996)

Besides, it is evaluated that at least 250 million occupational accidents happen every year worldwide, in which 335,000 of these injuries are fatal that result in death. Because a majority of reports are not recorded and monitored accurately and seriously in some developing countries, thus it could be assumed that the actual statistics are much higher than this. Specifically, the number of fatal injuries is supposed to be much higher in developing countries than in developed ones. In this respect, the differences mainly come from the better levels of occupational safety and health programmes, developed first-aid and medical facilities in some developed countries, as well the proactive participation of workers in several health and safety activities. Some of the industrial areas with the highest risk of occupational injuries are: agriculture, mining, chemical, etc. (ILO, 2010)



With regard to the term of occupational disease, based on the Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155), it refers to the disease contracted due to an exposure to risk factors happening in work activities. Moreover, it has also defined that each people should consider disease known to occur in the process of exposure to substances and dangerous condition in working environment (ILO, 1964). Specifically, two components in the concept of an occupational disease are successively shown: the linkage between exposure in a particular working environment and a particular disease; and the disease appears in a group of exposed persons with a frequent time above the average morbidity of the others (ILO, 2010). In addition, Dembe (1996) explained that occupational accident and diseases includes a variety of injuries, ranging from cuts, loss of limb, sprains or illness as a result of physical demands or chemical hazards to wider concepts of occupational disease, namely back pain, cancers, carpal tunnel syndrome, or other diseases.

In term of occupational accident, it is considered as an unpredicted and unwanted occurrence, including acts of violence, occurring or involving with work that causes one or more workers incur a disease, injury or death. In case, transport, travel or road traffic accidents are considered as occupational accidents only when those accidents arise out in the course of work, for instance: while engaged at work, in an economic activity or performing a business of the employer. (ILO, 1998)

### **2.2.2 The impact of occupational accidents and diseases**

According to Dembe (2005), not only do occupational accidents and diseases seriously impact on workers' families and children, but also affect the employment, economic, society as well as legal implication. Moreover, based on an ILO training programme with the title Introduction to Health and Safety at Work (ILO, 2013), occupational diseases and accidents are very costly and could affect directly and indirectly several effects and outcomes on the lives of either workers or their families, as well as impact on the financial state of the enterprises.

#### **In term of employers costs**

It is estimated that the impact of occupational accidents or illnesses on employers is very tremendous. With respect to some employers, there is a range of costs that could be identified as following: medical and compensation payments; allowances payments; payment for work not implemented; fixing or replacement of broken equipment and machinery; downsizing or a temporary suspension in production; increase the expenses of administration and training, possible decrease in the quality of work; insurance and pension costs, and negative impact on the workers' morale. (Dagenaisetal, 2008)

Besides, it is very popular to distinguish between "direct" and "indirect" costs incurred by employers derived from work-related accidents and illnesses. The general definition of direct costs contains all those for which monetary payments are given (Dagenaisetal, 2008). More specifically, employer is held accountable for payments into funds of employment injury insurance), salary paid to employees during the time of incurring any injury or illness (sick leave), and medical expenses. All of these payments should be considered as direct costs, even though the problems allocated within accounting systems has to be confirmed. (Dorman, 2000)

### **In term of indirect costs**

Compared to direct costs, indirect costs have some differences that it is less the conceptual content than the measurement strategy (ILO, 2012). Specifically, there are some major elements in indirect costs, including:

- (1) Collateral damage to machineries and equipment: If any injuries happen because of accidents, it is likely to damage to machinery or equipment in the company's inventory or stock;
- (2) Downtime: The process of production may be suspended as a result of an accident;
- (3) Absence of the ill or insured worker: Companies would be incurred the decrease of productivity as workers are absent from their jobs. It is believed that reduced productivity due to this or other reasons may affect not only the output, but also

deterioration in quality, timeliness or even the reputation;

(4) Negative impact on collaborators: Collaborators could be distracted or suffer a loss of morale due to an occupational injury or illness.

(5) Compensation for overstaff: Companies may hire extra employees in anticipation of future absences as a result of occupational ill health (Oxenburgh & Marlow, 2005)

(6) Employees' health is impaired; as a result, productivity is decreased. It is likely to happen through light duty or occur without awareness or formal recognition. Researchers have taken this cost into consideration as "presenteeism".

(7) Costs of administrative response: If companies perform to solve these incidents of occupational injuries and diseases, they have to spend a great deal of money on investigation, supervision and employee relations.

(8) Additional recruitment costs: Occupational injuries and illnesses could increase turnover directly, in the case that impaired workers cannot return to their former work, and indirectly by undermining morale and commitment. In either case, employers encounter with extra costs in screening, searching, hiring and training replaced workers. (Berger, 2001)

Besides, Pauly (2002) indicated that the value of lost output is viewed as to be more substantial than the salaries corresponding to the lost work time. In this respect, the reason is that three factors can potentially cause to the absenteeism cost, namely, how readily an ill or injured worker can be substituted, the level of co-workers that depend on the contribution of the missing worker, and the extent that the value of output is time-sensitive. It means, if training, specialization or labour market limitations create difficulties for the employer to find new workers for the ill or injured workers, if output is identified interactively between that worker and his or her co-workers, and if the company suffers a considerable cost as a result of a delay in supplying output of the desired quality, then the value of lost output in production could be over the salary involving the absenteeism episode. (Pauly, 2012)

**In term of worker costs**

In this respect, Dembe (2005) mentioned five main impacts on those who incur injuries or illness in the course of work, namely medical care and recovery, psychological and behaviour responses, functional responses, vocational responses and economic responses. Based on Berger (2001), meanwhile, it is obvious that occupational accident and disease impact directly either the workers' or their families' lives. By far the most outstanding cost to workers is the loss of quality of life, or even premature death as a result of occupational accident and disease. The first cost that workers suffer is that workers have to pay a sum of money to lessen their potential risk of an occupational accident. Moreover, they may also incur an uncompensated loss of income during the time of their absence from work (Berger, 2001). It is commonly known that most workers are provided insurance for occupational accident and disease through workers compensation system; however, not all loss of income or absences are given compensation, nor do the payments compulsorily return workers for the full cost of their absence from work. (Berger, 2001)

In addition, the second financial cost affect directly the workers as they have to pay for medical care and pharmaceutical expenses without being fully returned by their employers or employment accident insurance system. In this respect, a relevant financial cost is the loss of benefits as a result of reduced salaries and unwanted health care expenses. Therefore, it is likely to lead the workers to lose their home or other goods due to suffering loss of income or paying a great deal of money for medical expenses. Ultimately, a final important impact of occupational accident and disease is that good health generates a major source of human capital. If the workers' health impair, it is likely to deplete the human capital and decrease the economic prospects of either the country or the victims. (ILO, 2013)

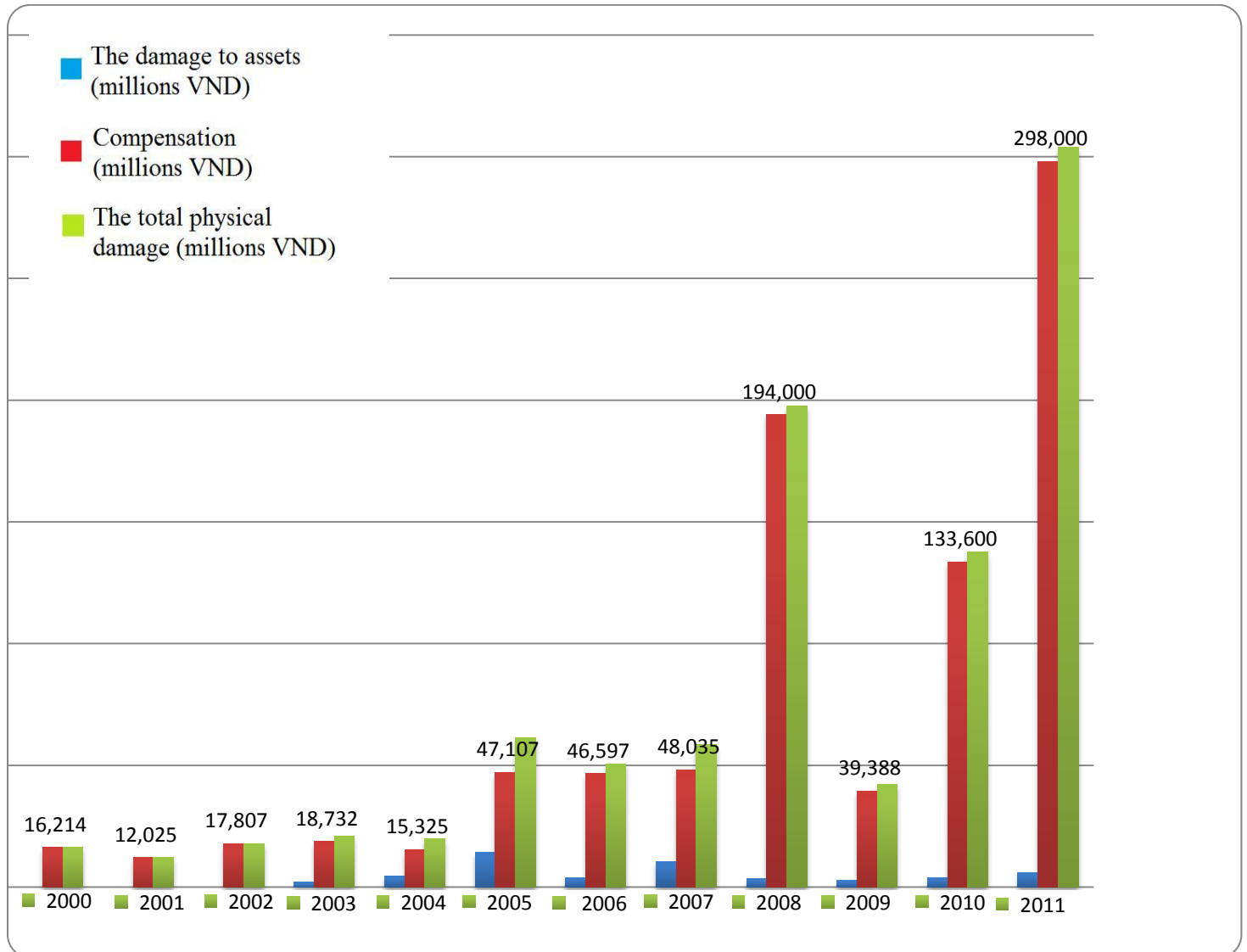
### **In term of costs to society**

It can be seen apparently that costs to enterprises, employers and workers are also social costs for the reason that enterprises, employers or workers are all the important elements of society. Nevertheless, there are some specific burdens that are placed

solely on the society. These are generally the costs of medical care expenses and salaries that are not paid by either companies or workers (ILO, 2013). More specifically, these payments include additional subsidies for salary replacement and medical reimbursement, costs of governing the public OSH system, costs of insurance systems and costs for using public health services. (Dagenaisetal, 2008)

Consequently, the effect of occupational safety and health hazards, namely injuries and ill health, do not only consist of the company but also each worker or victim as well as their families and social networks. Thus, society as a whole has to solve these negative outcomes of the production process. It means that the motives for improving a useful and successful occupational safety and health policy should originate from social as well as from economic objectives. If a person regards health and safety as a basic right for every worker, the economic goals should be taken into consideration in the social policy at company and society level. (HESAPRO, 2013)

In Vietnam, for instance, the occupational accidents and diseases have caused a great deal of both physical damages and loss of lives during the period of 2000-2011. According to official statistical reports, along with the loss of tens of billion VND per year due to machinery, equipment and buildings damaged, the total amount of compensation and allowances paid for workers is rapidly rising, from a few tens of billion VND every year in the period of 2000-2007 to several hundred billion VND per year in the period of 2008-2011. (See figure 2) (MOLISA, 2013)



*Figure 2: Total physical damage due to occupational accidents and diseases in Vietnam*

*During the period of 2000- 2011*

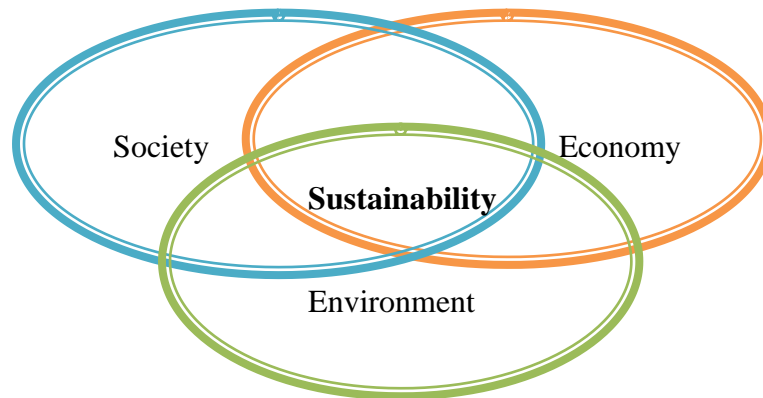
### **2.3 Occupational safety and health, and the sustainable development of enterprises**

In recent years, the realm of sustainable development has rapidly become an important factor that has drawn a great attention on the enterprises. A majority of enterprises has continuously promoted their strategies of sustainable development on

the way of pursuing the long-term development. Specifically, occupational safety and health is considered as the basic and crucial element that constitutes a health and social aspects of sustainable development.

### 2.3.1 Sustainable development

There are a majority of researches that emphasizes on the realm of sustainable development; thereby a multitude of definitions could be established from these literatures. In the past, sustainable development was mainly used to indicate the environment and was mentioned about the quality of sustaining the environment (Garetti & Taisch, 2012). However, today, sustainable development is recognized and defined through the connected interactions at three main dimensions that specifically are environment (planet), economy (profit) and society (people). These dimensions are commonly considered as triple bottom line (TBL) and sustainability pillars (Molamohamadi & Ismail, 2013). (See figure 3)



*Figure 3: The triple bottom line (TBL) of sustainability*

In the other words, sustainable development is regarded as a strategy to meet the demands of the current world population that would not cause any adverse effects on either health or the environment, and would not diminish or threaten the global resources, thus would not affect the capability of future generations to meet their

demands. Furthermore, it is stated that human beings plays most vital role in term of sustainable development. They are actually enabled to have a healthy and productive life in accord with nature (WHO, 1994). Besides, it is argued that a helpful definition of sustainable development is considered as the one that encompasses both dynamic efficiency and intergenerational equity. More specifically, the sustainable development refers to the non-wasteful depletion of resources as well as the total welfare (Stavins, Wagner & Wagner, 2003). In this respect, resource bases comprise of several factors, such as: specialized skills, organizational infrastructure, human resources, technology, plant, equipment, and financial resources.

Besides, it is also explained that sustainable development offers a big opportunity to balance economic, social and ecological aims properly. Therefore, based on this perspective, enterprises actually need to sustain and develop economic growth, customer relationship, corporate reputation, shareholder value, the quality of products and services in order to obtain sustainable development (Szekely & Knirsch, 2005). In addition to this, it is believed that solving some issues of economy, society, and environment in isolation would likely to bring about the unexpected results in other dimensions. And it is also supposed that ensuring a sustainable future demands a systematic approach with interconnected interactions at these three sustainability pillars: economy, society and environment (Rachuri, Sriram & Sarkar, 2009).

Moreover, sustainable development is also described as the assurance to a safe future with utilizing materials, natural resources, and energy sparingly involving with the current social, economic and environmental state. It could be generally said that sustainability refers to the resource bases that comprise of human resources, financial resources and natural resources. In which human resources could include a variety of factors, for instance: the employers, consumers, shareholders, and all the stakeholders who affect the organization and would be impacted by its enterprises. As a result, sustainable development intends to conserve and maintain such



resources as efficient and effective as possible for the utilization of the current communities as well as the future generations (Molamohamadi & Ismail, 2013).

Briefly, the key point of sustainable development is either human beings or their quality of life. Hence, sustainable development should concern about society among economy and environment for the reason that people's level of satisfaction is completely important. In this respect, economy is partly represented through the people and their satisfaction in life. And the quality of each person's life is greatly affected by environment including the nature and the resources.

### **2.3.2 The relationship between the OSH & the sustainable development**

Today, many researchers have carried on several studies that describe about the similarities and the linkage between occupational safety and health and the sustainable development. This part would discuss about the preceding findings in this field of research and identified how these two contentious policies are interrelated.

Obviously, a majority of enterprises have perceived that designing the future should be connected with respecting for people and caring about their health and safety, since workforce is viewed as a backbone of any enterprise or any country (Takele & Mengesha, 2006). It is also believed that safety and health workplace could likely to create a powerful vision for a sustainable future (Taubitz, 2010). Besides, occupational safety and health is considered as the central point of sustainable development in enterprises. More specifically, the occupational safety and health approach would likely to facilitate the undisturbed production that improve the productivity, quality of products and process management, thus assist to avoid unwanted loss of resources and the impacts on the surrounding environment. Obviously, a majority of environmental hazards and problems are originated from the occupational settings, especially in some specific fields such as: agricultural, industry practices, services or transportations. Therefore, experts and others should be accountable for these relevant issues that may be dangerous to the environment at

a very early stage of the problems, thereby they could find the solutions to prevent these hazardous elements. Because the status of the general environment and the ecosystem has greatly affected on the health of employers both directly and indirectly in term of agricultural, mining, manufacturing industry. As a result, there is a close linkage between occupational safety and health and the environment particularly, and the sustainable development generally (WHO, 1994).

In addition, it is believed that the enterprises who perform the best effective occupational safety and health practices are considered the most productive and the most social, economic and environmentally friendly businesses. Apparently, effective occupational safety and health services would assure the safety, health, working capacity and well-being of the working population. As a result, healthy, productive and well-motivated labour force would substantially contribute to the overall social-economic development. Furthermore, high quality and productive work would likely to assure the quality of producing goods and services, as well as ensuring the practical execution of the principles of sustainable development (WHO, 1994). (See Figure 4)

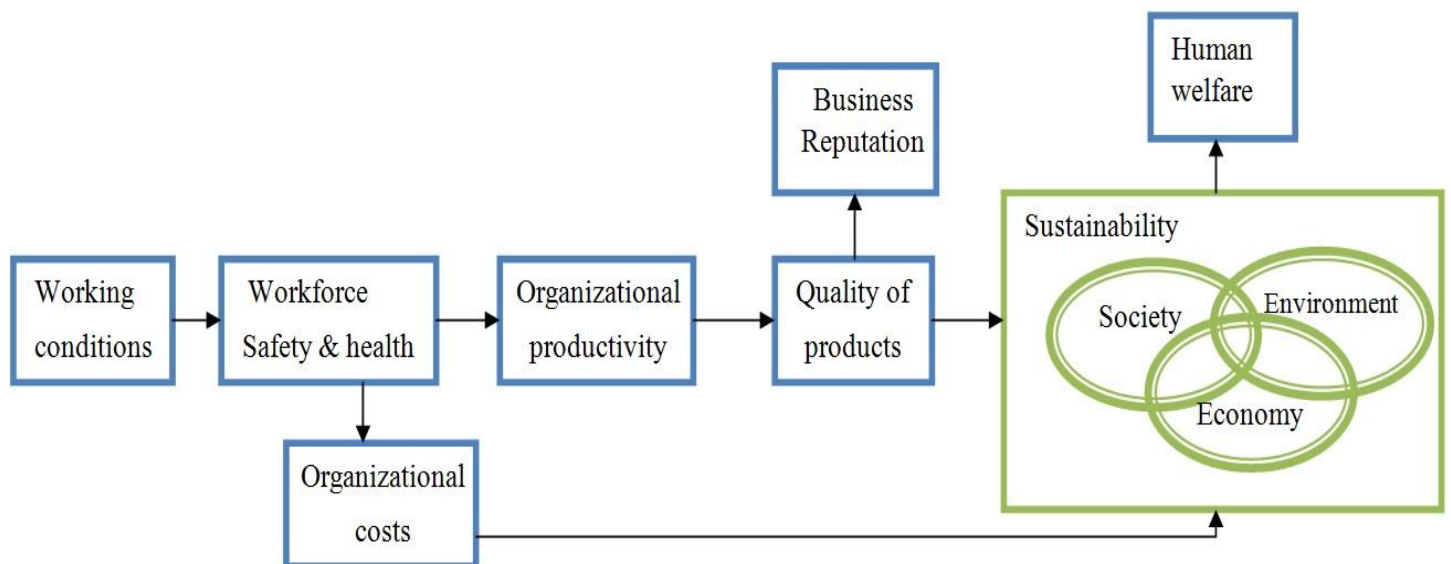


Figure 4: The relationship between the OSH & the sustainable development

Besides, it is argued that sustainable development is regarded as an essential part of occupational safety, health, environment, and community, and aims at promoting continuous improvement in performance (Billiton, 2005). However, others states that ensuring safety acts in a “safety sustainability continuum” is considered as a starting point in accomplishing sustainable development (Gilding, Hogarth & Humphries, 2002). Particularly, worker safety and health could result in sustainable improvements by utilizing the momentum of the green movement and adapting successful intervention approaches from the field of environmental sustainability. It is also suggested that integrating sustainability and occupational safety and health practices is very crucial to the effective realization of these endeavours. (Schulte & Mckernan, 2013)

Therefore, providing safety and health at work for workers would constitute the essential infrastructure for social and economic sustainability. And the environment and the society would likely to be exposed to hazard if healthy workers and safe working places are not ensured. On the other hand, unhealthy workers in unsafe working environment could not result in the maximum efficiency and productivity, and consequently, the organization would encounter with the financial crisis, which in turn would cause the difficult economic conditions for all the workers and the stakeholders such as customers, shareholders, as well as the society. (Billiton, 2005)

Furthermore, were the workers to experience injuries or accidents in the unsafe working environment, it would not only increase the company’s costs such as medical expenses, operational costs, and compensations to the individuals and society, but also deteriorate the enterprises’ reputations and lessen their market shares. This, in turn, would likely to undermine the workers morale and motivation, cause the adverse effects to the quality of the products, and result in organization’s unwanted disappearance from the market. As a result, the occupational safety and health programs would directly affect the employees, whilst indirectly impact on the society, economy, and environment in the long term. On the other hand, as a result of lacking social and economic sustainability, the issue of safety and health would

not be able to successfully controlled and assured. Apparently, if workers have some economic problems, they cannot be mentally and physically healthy at work. In addition to this, society and its instability would cause the insufficiency of motivation and affect workers' effectiveness. Environment would also impact on the workers' health and their productivity at work. This is commonly because the enterprise is regarded as an indispensable part of the society and whatever affects one, directly or indirectly impacts the other (Molamohamadi & Ismail, 2013).

### 3. METHODOLOGY

#### 3.1 Qualitative research

In term of qualitative research, it refers to a research that relates to analyse and interpret texts and interviews so as to explore meaningful patterns descriptive of a specific phenomenon (Auerbach & Carl, 2003). Gillham Bill (2010) also described that “qualitative methods are essentially descriptive and inferential in character”. It concentrates mainly on a variety of evidences, (namely what people tell and what they do) that is likely to make people understand the meaning of what is going on. Meanwhile, Denzin & Lincoln (1994) affirmed that qualitative research is viewed as a multimethod in focus, concerning with a naturalistic and interpretive approach to the subject matter. It means that researchers utilize qualitative method to analyse things in their own natural settings so that they make sense of, or interpret the meanings. Thus, it concerns with the studied use and the collection of various empirical data, specifically personal experience, life story, case study, interview, observational, historical, interactions, or visual texts (Denzin & Lincoln (1994). Furthermore, qualitative research is defined by its objectives, which involve in comprehending some aspect of social life, and it normally creates word data rather than number data for analysis (Patton & Cochran, 2002)

Moreover, Ghauri & Gronhaug (2010) indicated that qualitative research focuses commonly on the understanding from respondent’s comments and opinions. And the qualitative research is also considered as a combination of the intuitive, rational and explorative that the knowledge and skills of researchers play an important role in the process of analysing data. As a result, there are a variety of the skills required to conduct qualitative research, namely thinking abstractly, critically analysing situations, and acquiring confidential and valid information, possessing theoretical and social understanding and the capacity to keep analytical distance. Specifically, qualitative data are also identified by Patton (1990) as detailed explanation of conditions, interaction, people and behaviours from people about their thoughts, beliefs, and experiences. Qualitative research to study is involved in subjective

evaluation of opinions, attitudes and behaviours (Kothari, 2004). In general, there are various methodologies utilized in this research, namely participant observation, unstructured or structured interviews, life histories, ethnography, textual analysis, or critical cultural history.

With respect to this thesis, the topic is mainly mentioned about how the occupational safety and health impacts on the sustainable development of enterprise, thus the qualitative research is considered as an effective method to analysis this issue. Apparently, the aim of using qualitative research is to obtain the profound understanding and perception of employer and employee about this problem, as well as acquiring their extensive advices to come up with the best recommendations in improving the quality of OSH.

### **3.1.1 Data collection method**

To acquire the in-depth understanding about the field of OSH effectively and efficiently, the interview method was utilized. In this regard, interviewing is one of the prominent methods of data collection. More specifically, it could be described as a two-way conversation occurring between an investigator and a respondent, conducted for gaining information related to a particular research. It concerns with not only the conversation between the investigator and the respondent, but also exploring from the respondent's attitudes, facial expression, behaviours, and his background. (Gillham Bill, 2010)

In addition, interview is considered as an important method in qualitative research. It is very helpful to collect a great deal of reliable data ranging from actual demographic statistics to personal and highly intimate information regarding to a person's thoughts, behaviours, values, beliefs, practical experiences or future plans. Moreover, interview is considered as a beneficial choice compared to other data-gathering methods. Apparently, respondents regularly tend to talk rather than to write. Once relationship between the investigator and the respondent is established, even the most confidential information could be acquired. It allows exploring into

the background and reasons for answer to questions (Krishnaswami & Satyaprasad, 2010: 5-7). Furthermore, interviewing needs face-to face interaction or interaction over online platform or telephone. It is performed by utilizing a structured schedule or an unstructured schedule (Gillham Bill, 2010). In term of this thesis, the interview will be conducted on the basis of semi- structured which is a loose structure and established by open-ended questions.

### **3.1.2 Interview structure and objective**

To conduct this research effectively, the interview was designed on the basis of semi-structure, which is a flexible structure and established by open-ended questions. In other word, semi-structured interviews were chosen in order to collect data as a result of two major considerations. First, they are well suitable for the probe of the awareness and thoughts of respondents involving complex issues and enable exploring for more valuable information and clarification of responds. Second, the diversification of skills, experiences and personal background of the sample group is likely to preclude the use of a similar interview schedule (Louise & Alison, 1993). Moreover, this kind of interview has some specific advantages. In this regard, semi-structured interview facilitates the process of comparison between data collected from one interview to the next one effectively. Second, in turn, recording and coding in semi-structured interview do not pose any difficulty, and greater accuracy and precision is obtained. (Krishnaswami & Satyaprasad, 2010).

By performing semi-structured interview, a framework of questions on OSH was generally decided and prepared in advance. It would be very beneficial for interviewer to have a fundamental interview direction that would help them in probing more information. However, some questions would be generated during the interview that allows the interviewees to flexibly express more their profound comments. Specifically, in this case, all the contents of questions for interviewees are nearly similar and prepared beforehand so as to solve the main research problem of this thesis. Nevertheless, these questions will be asked in different ways for different participants, namely the question will be modified to be most suitable for

different workplaces and different functions. All three interviews will be performed through an online communication platform because of geographical distance between interviewer and interviewees. Furthermore, due to the time difference and the busy working schedule of participants, the interviews are supposed to occur no more than 1 hour.

Apparently, the aim of the semi-structured interview is to explore and obtain the most insightful views and thoughts about OSH so as to answer the primary research questions. With regard to interview with the representative of MOLISA, the overall situation and the impact of OSH in the enterprises' development will be gained that support to clarify the OSH background. Meanwhile the details provided from interviews with the employer and the employee (Vinacomin) will assist in analysing the central problem of OSH in Vinacomin Corporation.

### **3.1.3 Interviewees**

As stated earlier, there are three people were interview for the purpose of supporting this research, namely a representative of Ministry of Labour, Invalids and Social Affairs (MOLISA), an employer and an employee from Vinacomin Corporation. As a result of conducting interviews with three people in three different positions, this research will be implemented with more objective perspective.

**Do Thi Thuy Nguyet** (Ministry of Labour, Invalids and Social Affairs)

Position: Deputy Director General of Work Safety Department

Name of Organization: Ministry of Labour, Invalids, and Social Affairs

The first interviewee was Ms. Nguyet, who is the deputy director general of Work Safety Department, Ministry of Labour, Invalids and Social Affairs (MOLISA), Vietnam since 2002. Her major tasks are to study and submit a range of strategies and programs to Ministry and Government, namely long-term and annual plans and projects on occupational safety and labour protection, as well as drafting law,



ordinance and legal documents on OSH. Moreover, she also has to establish standards on labour classification, working policy, working time rest time according to working conditions. By virtue of her long work experience and profound understanding on OSH, she could definitely give her worthwhile opinions on the current situation of OSH in Vietnam, the impact of occupational accidents to the enterprises, as well as suggesting some useful recommendations.

**Duong Duc Hoan**

Position: Labour inspector of the VINACOMIN

Name of organization: Vietnam National Coal and Mineral Industries Corporation (VINACOMIN).

The second interview was conducted via Skype that lasted for nearly one hour. The interviewee in question, Mr. Hoan, is currently the labour inspector of the Vinacomin Corporation. He has performed several major tasks in Vinacomin, namely inspecting the compliance with regulations on occupational safety and health; organizing and guiding the investigation and reporting of occupational accidents, violations of labour standards and occupational health; statistics of occupational accidents. Moreover, he has also participated in the development and provision of guidance on the regulations and standards in occupational safety and health, establishing the responsibility of employers and employees for organizing and implementing rules, processes, norms and measures for safe work and working conditions. Furthermore, Mr Hoan has also undertaken training programmes in OSH and PPE provision, regulations on health care for workers such as health checks, occupational disease checks, attending sanatoria, and occupational accident and disease allowances. Therefore, by virtue of his experience and thorough knowledge on OSH in Vinacomin, he will certainly provide the most exact opinions and comments on the course of this study.

**Mac Quoc Su** (Vinacomin Corporation, Vietnam)

Position: OSH Worker of Duong Huy Enterprise, VINACOMIN Corporation;

Name of organization: Duong Huy Enterprise, Vietnam National Coal and Mineral Industries Group (VNACOMIN).

Ultimately, Mr. Su is a worker of Duong Huy Enterprise (Vinacomin) and the interview with him was undertaken through Skype for about half an hour. Currently, he has built the OSH annual plan, monthly plan and has submitted to the Director of the Enterprise. Furthermore, he also guides and checks the implementation of occupational health and primary health care. With regards to OSH collaborators network, he guides the implementation of OSH in the production group or team. He is viewed as very professionally educated, enthusiastic and very keen on labour protection issues are assigned to do the job.

#### **3.1.4 Interview questions**

All the questions used for three interviews basically had similar content and were prepared in advance. Specifically, only one interview with the MOLISA's representative was conducted in English. The others with the Vinacomin's employers and the employees were performed in Vietnamese due to their limitation in English. Moreover, in order to analyse data most effectively, the questions were categorized into five themes that reflect all the mentioned sections in this study. Besides, as mentioned in "Structure and objectives of interview" part, the questions were modified to be most suitable for different interviewees, but the core content of questions still remained unchanged. The following list would present the questions used to provide a fundamental frame to interview and the relevant reasoning why they were chosen to ask.

#### **Theme 1: The current overall situation of OSH**

*MOLISA's representative:*

What is the current overall situation of OSH in Vietnam?

How do you evaluate the quality of OSH in Vinacomin Corporation in the perspective of MOLISA's representative?

In your opinion, what are the advantages and disadvantages of OSH system in Vietnam generally and in Vinacomin specifically?

Vinacomin's employer:

What is the current overall situation of OSH in Vinacomin Corporation?

What are the advantages and disadvantages of OSH system in Vinacomin Corporation?

Vinacomin's employee:

How do you evaluate the quality of OSH in Vinacomin Corporation?

## **Theme 2: Occupational accidents and diseases: reasons and consequences**

MOLISA's representative:

How many do the occupational accidents occur per year in Vietnam?

What are the main reasons that cause to these accidents and diseases in Vietnam as well in Vinacomin?

What are the consequences of these occupational accidents and diseases from the perspective of Ministry's representative?

Vinacomin's employer:

How many do the occupational accidents occur per year in VINACOMIN?

How many of them cause to the fatal injuries? And what are the main reasons that cause to these accidents?

What do these occupational accidents and diseases damage to VINACOMIN?

*Vinacomin's employee:*

Have you ever suffered any occupational accident and disease? If yes, how did it impact on your life?

In your perspective, how do the occupational accident and disease impact on the workers' lives?

**Theme 3: The importance of OSH and how it impacts on the enterprise's development**

*MOLISA's representative:*

Do you believe that OSH plays important role in the development of enterprises in Vietnam and in Vinacomin? If yes, why is it important?

What are the benefits of good occupational safety and health that enterprises in Vietnam and Vinacomin can obtain?

*Vinacomin's employer:*

How does the OSH impact on the development of Vinacomin? Does it play important role in Vinacomin's operation?

In your opinion, what are the benefits of good occupational safety and health that Vinacomin can obtain?

*Vinacomin's employee:*

In your opinion, what is the role of OSH in improving labour productiveness and effectiveness?

How does the OSH system affect your working life?

**Theme 4: Implementation of OSH legislation**

*MOLISA's representative:*

Do the enterprises comply seriously with the OSH law?

Does the Vinacomin comply seriously with the OSH law?

What are the Ministry's sanctions to the enterprises who do not comply with the law and regulations?

*Vinacomin's employer:*

What are the specific VINACOMIN's actions to comply with the regulations and law of OSH?

*Vinacomin's employee:*

Do the different kinds of machinery, equipment, materials and substances meet the strict occupational safety and health requirements in VINACOMIN?

Do your workplace expose to harmful elements? If yes, do you

Do you have the periodical medical examination and the training on OSH once a year?

Do you satisfy with this working environment in VINACOMIN?

**Theme 5: Recommendations to solve the current problems and improve the quality of OSH system.**

*MOLISA's representative:*

What are the Ministry's solutions or recommendations to prevent these occupational accidents and diseases as well as improving the quality of OSH system in Vinacomin?

*Vinacomin's employer:*

What are VINACOMIN's plans to solve the current problems?

Do you intend to focus and invest more on the field of OSH in the future?

If yes, what are your recommendations to improve the OSH quality in the future?

*Vinacomin's employee:*

How do you evaluate the current VINACOMIN's actions and solutions in the effort of decreasing the number of occupational accidents and diseases? Do these actions and solutions work effectively?

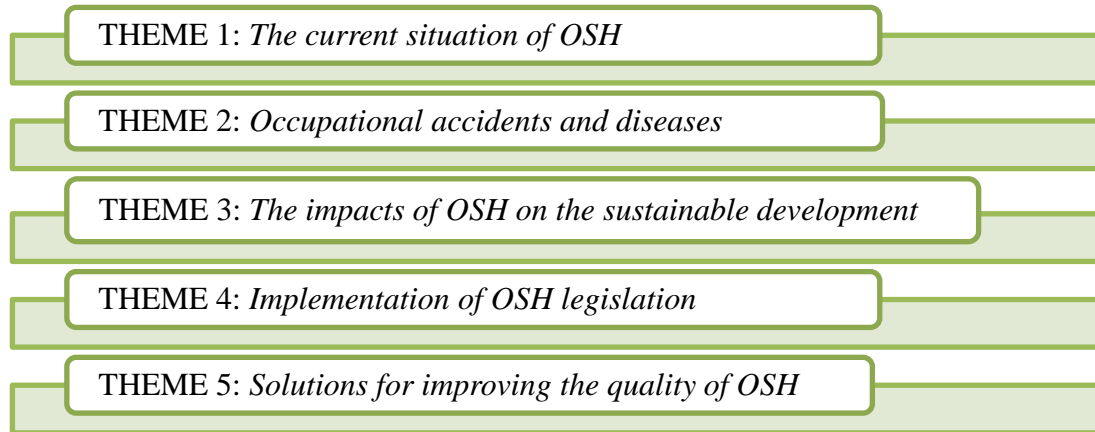
In your opinion, what should VINACOMIN do to improve the quality of OSH system in the future?

**3.1.5 Data analysis method**

In this thesis, thematic analysis will be utilized so as to combine and analyse the detailed information acquired from three interviews. As mentioned earlier, there are five themes that were chosen to collect the data (See figure 5). In term of thematic analysis, it is considered as a qualitative data analysis method that aims to identify and analyse themes with data. So it will certainly enable the researchers to classify and define data in detail (Braun & Clarke, 2006). Moreover, according to Bernard (1996), thematic analyses not only counts words or phrases apparently, but also emphasizes on classifying and analysing both implied and obvious ideas within the data that is called as themes. Besides, Boyatzis (1998) also affirmed that thematic analysis is utilized to analyse identification and classification themes that are relevant to the data. It describes the data in great detail and facilitate in studying with a variety of subjects by interpretations.

Besides, Marks and Yardley (2004) indicated that thematic analysis is regarded as the most ideal method for any research that aims to probe using explanation. In this respect, it enables the researcher to combine a theme's analysis with another of the

whole content. This is likely to make the research more accurate and specific, as well as enhancing the research's whole meaning.

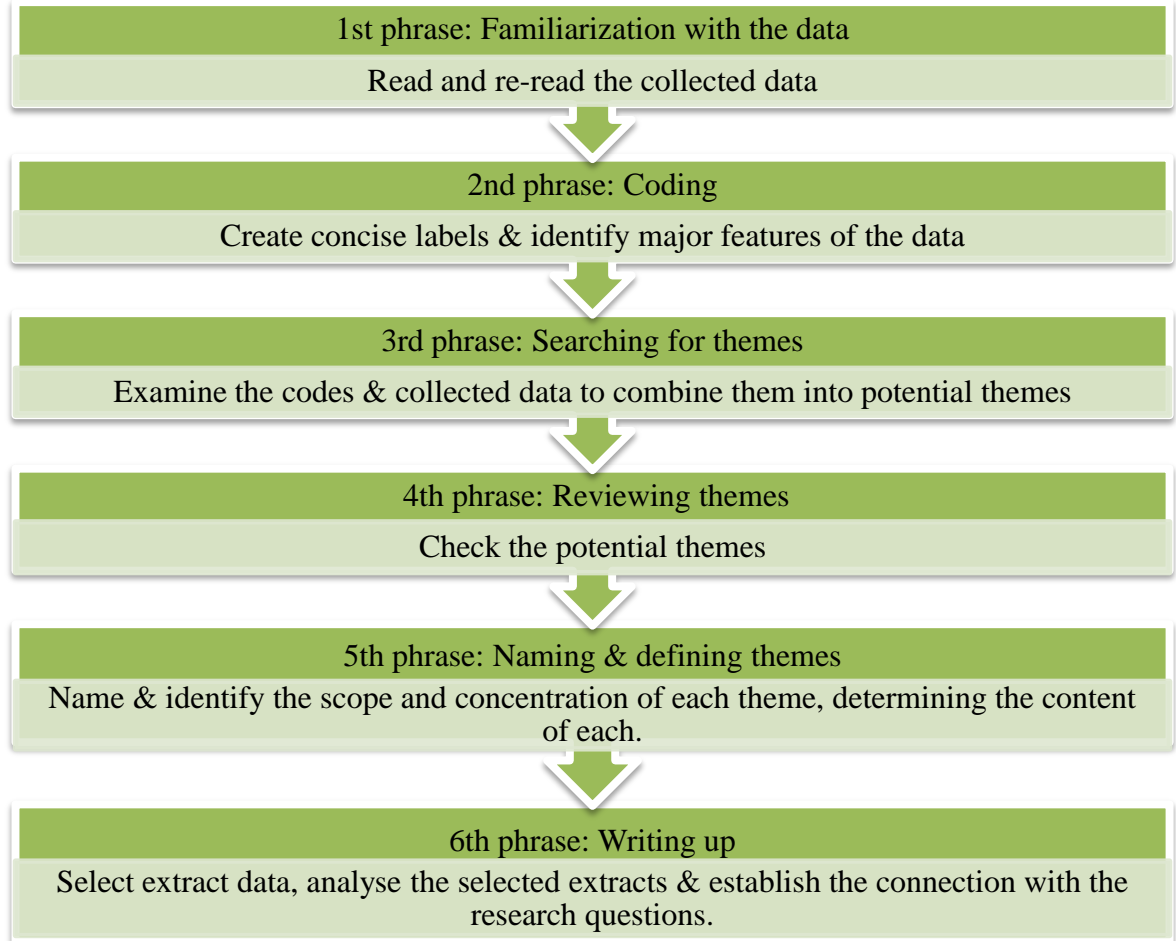


*Figure 5: Themes for analysing data*

Furthermore, Mark and Yardley (2004) presented that since qualitative research needs to understand and collect a variety of information and data, thematic analysis would be able to provide an opportunity to comprehend the potential of any point more widely. Specially, thematic analysis enables the researcher to identify particularly the linkages between concepts, and allows comparing these concepts with the replicated data. Therefore, by using thematic analysis, there is a possibility to connect a variety of concepts and comments of the researchers and compare them with the data that has been collected in different cases at different times during the study. (Alhojailan, 2012)

According to Braun and Clarke (2006), thematic analysis is categorized into six phrases. More specifically, the first phrase is familiarization with the collected data. This phrase regards to reading and re-reading the collected data, to become familiar with the content of the data. Coding is the second phrase that involves in creating concise labels (codes), and identifies major features of the data, which probably relates to solving the research questions. This phrase concerns with coding the whole of collected dataset. The third phrase, in turn, is searching for themes. This phrase

regards to examine the codes and collected data to combine them into potential themes. Reviewing themes is the fourth phrase that concerns with checking the potential themes based on the dataset so that the researcher can decide what theme will be convincing and answers the research questions. In this step, a thematic map of analysis are normally clarified and decided. In turn, the fifth phrase is naming and defining themes that concerns with performing a great detailed analysis of each theme, identifying the scope and concentration of each theme, determining the content of each. Ultimately, writing up is the last phrase that regards to select extract data, analyse the selected extracts and establish the connection with the research questions. (Braun & Clarke, 2006) (See figure 6)



*Figure 6: The process of thematic analysis method*



### **3.2 Assessment of reliability and validity**

With regard to the validity definition of a qualitative research, it mentions the certainty and the accuracy of the findings in a study, in which “true” in the mean that research findings properly reflect the situation, and “certain” in the mean that research findings are supported by the persuasive evidences. (Lisa, Diehl, & Debra)

In term of reliability, it is considered as the level that an evaluation consistently measures what it is measuring. In other words, reliability within the context of qualitative research is regarded as an important methodological concern as conducting a research. Thus, to be assessed or regarded reliable, the qualitative research would be checked whether how and to what extent consistent methods and procedure are applied. (Mohammed Ali, 2013)

The information gathered in this research study was provided mainly from representatives of MOLISA and Vinacomin Corporation in Vietnam. Therefore, the research result is regarded as very reliable. Particularly, all three people chosen for the interviewers are very suitable choices to give accurate inquiries since their work directly relate to the field of OSH. By virtue of long working experience and profound understanding on OSH, the interviewees provided previous opinions and trustworthy information about the mentioned research problems. Furthermore, permission for publishing the information about OSH in Vietnam and in Vinacomin Corporation was asked and given by MOLISA and Vinacomin’s representatives. As a result, grounded in these reasons, the qualitative interviews were actually reliable as well as valid.

#### 4. FINDINGS & ANALYSIS

This section would present the answers of three interviewees that were given based on the mentioned list of questions. Moreover, the answers are arranged and analysed in five themes in the process of conducting thematic analysis. Thus the important issues need to be solved will be identified and emphasized. More specifically, the descriptions of both common and differences are also included and clarified in this section by virtue of collected data set.

##### **Theme 1: The current overall situation of OSH**

Generally, both the MOLISA's representative and the Vinacomin's employer stated that the current situations of OSH in Vietnam and in Vinacomin as well have changed and improved considerably in recent years especially in the working environment. The perception and insight of employers and employees on OSH have also enhanced. However, the number of occupational accidents and disease are still on the rise. Specifically, in Vietnam, during the period of 2011- 2013, there are over 6.800 people on the average per year who suffer from reduced working capacity due to occupational accidents, in which over 625 people death. Compared to the period of 2006-2010, the number of occupational accidents in the period of 2011-2013 increased by 23, 4% and the number of death grew by 10, 76%. Meanwhile, in the first six month of 2014 in Vinacomin Corporation, there are 12 serious occupational accidents that caused 17 people death; compared to the same period in 2013, the number of serious accidents decreased by 25%, but the number of deaths due to occupational accidents increased by nearly 10%. Besides, both MOLISA's and Vinacomin's representatives affirmed that the increase of importing and utilizing modern equipment, technology and new materials, beyond the positive side, has caused several potential risks involving the OSH. Furthermore, the trend of developing mining and construction industry has increased the potential deterioration of OSH quality and has polluted the working environment. In addition, the dramatic development of the low skilled labour force will certainly affect the number of occupational accidents and diseases.

With regards to the advantages of OSH system in Vinacomin, Vinacomin board of leaders, managers, inspectors have currently focused on managing, guiding, supervising and inspecting the implementation of OSH law to workers that help in improving the working environment and ensuring the workers' health. Moreover, communication and propaganda in Vinacomin is strongly promoted and diversified. National Programme on OSH promulgated by the Government was already deployed effectively in the period of 2006-2010 and it continues to be deployed in the second period of 2011-2015 in Vinacomin. By virtue of these activities, the number of occupational accidents and diseases in Vinacomin has gradually decreased. Meanwhile, conducting the workers' health protection system comprehensively and effectively is considered as an advantage of OSH system in Vinacomin Corporation. They have deployed a range of reasonable solutions which are very beneficial for workers. Specifically, all workers are adequately equipped by personal protection equipment. Moreover, Vinacomin has provided additional protective clothes in winter and has built the bathroom, washing and drying services in order to serve underground miners. Besides, Vinacomin has also emphasized on organizing several activities with the purpose of improving workers' health, namely organizing periodic health examination, occupational accidents examination, and restoration of working capacity programmes.

Nevertheless, along with limitations for complying with legal regulations, either Vietnam or Vinacomin has still faced with the same problem that it is the limited awareness of OSH. The training capacity of OSH also failed to meet the practical requirement. The MOLISA's representative expressed that nearly 89.3 % of occupational accidents are attributed to inadequate awareness of OSH by employers and employees in analysing causes of occupational accidents in 2004. In addition, another advantage is that the capacity of the labour inspectors is still very limited in terms of both quantity and quality.

With respect to the answer of the Vinacomin's employee, he stated that the overall situation of OSH system in Vinacomin is considerably improved over the last few

years. Moreover, the rigorous management system with high degree of specialization is considered as an advantage of OSH in Vinacomin.

### **Theme 2: Occupational accidents and diseases: reasons and consequences**

The MOLISA's representative interviewed in this question stated that the occupational accidents in Viet Nam sharply increased from 840 cases in 1995, 3,405 in 2000, and to 6,026 in 2004. The number of occupational fatalities also increased from 264 in 1995, 406 in 2000 to 575 in 2004. And it is believed that more accidents and fatalities have taken place in smaller workplaces without being reported to the government. According to report provided by Departments of Labours, Invalids and Social Affairs, in Vietnam, during the period of 2011-2013, there are over 6.400 occupational accidents on the average, in which more than 600 fatalities due to OSH reasons. At the same time, the Vinacomin's representative reported that the aggregate number of occupational accidents is exceeding 121 cases in the period of 2010-2014, in which there are 143 fatalities. Specifically, the number of occupational accidents gradually increased from 17 cases in 2011 to 26 cases in 2013. In the first six month of 2014, there are about 13 occupational accidents occurred and 18 occupational fatalities.

Besides, both MOLISA's and Vinacomin's representative have similar opinions on the reasons of occupational accidents and disease that mainly stem from two factors, namely managers and workers. With regards to managers, there are many local authorities or chief executive officers have not recognized the importance of OSH in production in order to manage and supervise regularly, thus the quality of OSH in enterprises degraded. Moreover, a majority of managers do not have enough specialized knowledge and practical experiences on OSH to train workers, or they rarely cultivate their understanding on utilizing modern technology, consequently many occupational accidents occurred. Lacking of technical managements, safe management, leader skills and supervision is also considered as another reason of occupational accidents and diseases. With respect to the workers, many of them in rural areas have not been trained in how to prevent occupational

accidents and diseases due to the insufficiency in propaganda and dissemination of OSH policies and regulations. Especially, they have not been instructed the way of operating a variety of modern machineries, equipment and chemical plants. In addition, workers still do not proactively prevent risks and hazards in production. Particularly, they do not comply seriously with OSH regulations and the process of operating equipment.

As a result, these occupational accidents have greatly impacted on either Vietnam or Vinacomin's operation, causing not only devastating property damage but also the loss of life. The MOLISA' representative indicated that the losses caused by broken or defective machines and equipment are up to nearly tens of billions per year in Vietnam. In addition, the compensation and allowances given to the workers are rising rapidly, from tens of billions during the period of 2000-2007, to hundreds of billions in the period of 2008-2011. Besides, the losses due to leave job also impact substantially on the Vietnam enterprises' productivity, from 60,000 working days in the period of 2000-2006, to 550,000 working days during the period of 2007-2011.

Besides, Vinacomin has also incurred tremendous losses due to occupational accidents and diseases. Besides the loss of lives (averagely 20 workers/year), their budget has also been affected seriously by paying compensation and allowances to workers. Specifically, the total amount of compensation and allowances they has to pay is approximately 6 billion VND for all occupational accidents and diseases (300 million VND per worker), and nearly 1 billion VND for serious accidents. Moreover, their productivity and efficiency has also been impacted considerably due to workers' leave. And the Vinacomin's image and reputation are likely to deteriorate over the years.

With respect to the Vinacomin's employee, he expressed that he have never suffered from any occupational accident and disease so far. Nevertheless, he witnessed several cases of occupational accidents and diseases. And he stated that

work-related-injuries and illness affected tremendously to his colleague's quality of life, even deprived of their lives.

**Theme 3: The importance of OSH and how it impacts on the enterprise's sustainable development**

Both MOLISA's and Vinacomin's representatives have the similar perspective on the importance of OSH. In this respect, they stated that OSH has played significant role in the enterprise's sustainable development, and it impacts on every aspects ranging from employee's health, productivity, economic benefits to social security. More specifically, they emphasized that employee is considered as the most crucial factor in the sustainable development, since having healthy workers will certainly improve the productivity and efficiency in production, and will help in pursuing the sustainable development. Thus ensuring the quality of OSH also means protecting the workers' health and assuring the working environment safe. The MOLISA's representative indicated that in the period 2006-2009, each year in Vietnam, the rate of sick leave had decreased from 24% during the period 2001-2005 to 19.64% during the period 2006-2009. This is likely to decrease the impact of sick leave on the enterprise's operation.

Moreover, it is believed that OSH has notable impacts on the budget of enterprise. The Vinacomin's representative reported that the total amount spent on OSH is about 750 billion VND, namely 120 billion VND for organizing trainings on OSH, 50 billion VND for OSH inspection, 280 billion VND for periodic health examination, 190 billion VND for personal protective equipment, 126 billion VND for explosive prevention activities, etc. Along with the budget for OSH activities, Vinacomin has to pay a great deal of money for compensation and allowances, which is approximately 6 billion VND per year.

Besides, the MOLISA's representative added that thanks to the decrease of the rate of work accidents and occupational diseases, for the employees who are under social insurance coverage, the expenses caused by work accidents and occupational diseases per capita during period 2006-2009 were smaller than 2001-2005 by VND

2,000 per capita, equivalent to more than 15 billion dong each year. If including the expenses born by the employer and employee, in the coverage area of social insurance in particular, the decrease of the rate of work accidents and occupational diseases contributed to the saving of more than 60 billion dong each year during the period 2006-2009. If the calculation is done over the entire workforce, it is estimated to save more than 160 billion dong each year in Vietnam.

With respect to the impacts on social security, both representatives affirmed that the improvement of working condition and work environment has contributed to the decrease of ecological pollution in general and especially the spreading of toxic gases and dust which are the causes of diseases in the community. With the safe and healthy work environment, the employee will decrease the psychological strain, the worry about contracting diseases, and work accidents, helping increase productivity and product quality and increase the incomes and welfares of the employee. The reduction of work accidents and occupational diseases has also contributed to save social labour, decrease the poverty rate, unemployment rate and avoid increasing the burden for the society.

In the meantime, as being asked about the impact of OSH on the process of production, the Vinacomin's employee answered that the quality of OSH system plays significant role in production. As the quality of OSH system is assured, then the productivity and efficiency would increase. On the contrary, if there are many shortcomings occurring in OSH system, workers' morale may be affected seriously. Consequently, they could not concentrate on their work as a result of always fear of suffering occupational accidents and diseases, and then the productivity is likely to decrease.

#### **Theme 4: Implementation of OSH legislation**

As being interviewed about this study, the MOLISA's representative expressed that compliance with the OSH law seriously is considered as very important issue that impact on the Vinacomin's operation. She continued that the situation of violation

of OSH legislations is very common in Vietnam. In term of some basic OSH criteria, only 35-36,7% of enterprises performed, and Vinacomin is among these enterprises complied with the OSH law.

In term of implementing OSH laws, Vinacomin's representative answered that OSH law is viewed as a guide to improve the quality of OSH in Vinacomin. The legal documents, the provisions and the regulations are all deployed and informed to employees by means of (1) releasing the specific legal document to subordinate units so that they will disseminate to workers; (2) guiding subordinate units to have propaganda about OSH legislation via internal radio; (3) organizing the periodic examination about OSH legislation; (4) attaching the OSH legislation to the training programmes annually for either employers or employees.

In this respect, Vinacomin established a department of OSH, which has the main responsibility for supervising the implementation of OSH legislation. Moreover, in the course of complying with the OSH laws, Vinacomin has performed a range of activities, namely opening training courses in order to cultivate OSH skills and professional knowledge, organizing OSH inspection ( thematic inspection, periodic inspection, unexpected inspection, etc), ensuring the criteria: Clean – Safety-Saving Resources- High output, provide the personal protective equipment sufficiently for workers, complying seriously with the regulations on working time, rest time to ensure workers' health and safety.

On the side of the Vinacomin's employee, the status of implementing OSH legislation is presented through several actions. For instance, workers strictly follow the regulations and the rules provided; Vinacomin always provides sufficient personal protective equipment for all workers. All machinery and materials used in production meet the standards. Moreover, he stated that workers are all examined their health and are trained on OSH twice per year.

**Theme 5: Recommendations to solve the current problems and to improve the quality of OSH system.**



MOLISA's representative stated that solving the current problems in OSH system requires not only time but also the unceasing efforts of both Vinacomin and the government. On the side of the government, they have developed policy to encourage enterprise to implement activities that would improve working conditions and health care for workers. Moreover, government has also supported enterprises and subordinate units to participate in some pilot programmes and to apply advanced OSH management system.

In term of solving the current problems in the field of OSH, Vinacomin has implemented several solutions in order to enhance the awareness of OSH and to decrease the potential risks involving occupational accidents. In the coming years, Vinacomin will increasingly improve the working environment and working conditions for workers, especially control the potential hazards occurring in the process of production.

*Table 5: Summary of interviews*

	The MOLISA's representative Ms. Do Thi Thuy Nguyet	The VINACOMIN's employer Mr. Duong Duc Hoan	The VINACOMIN's employee Mr. Mac Quoc Su
Theme 1: The current situation of OSH in Vinacomin	OSH system in Vinacomin has changed and improved, especially in working environment. But the number of occupational accidents and diseases are still increasing.	A range of OSH activities has deployed to improve the quality of OSH, but there are still problems that needed to solve, namely the awareness of both employers and employees.	OSH system in Vinacomin has considerably improved, especially the increase of the rigorous management system with high degree of specialization.

<p>Theme 2: Occupational accidents and diseases</p>	<p><u>Reasons:</u> mainly stem from: employers and employees</p> <p><u>Consequences:</u> - Cause devastating property damage and loss of lives.</p>	<p><u>Reasons:</u> mainly stem from - Employers: lack of knowledge and essential skills (technical management skills, leader skills, etc.) - Employees: lack of awareness and trainings properly.</p> <p><u>Consequences:</u> - Causing loss of lives, loss of budget and affecting the Vinacomin's productivity and reputation.</p>	<p><u>Reasons:</u> - mainly from the insufficient understanding of OSH</p> <p><u>Consequences:</u> - Impact greatly on the quality of life.</p>
<p>Theme 3: The impacts of good OSH on sustainable development</p>	<p>- OSH is very important to the enterprise's development. - It impacts on every aspects ranging from employee's health, productivity, economic benefits to social security.</p>	<p>- OSH is very important to the Vinacomin's development. - ensuring the quality of OSH means protecting the workers' health and assuring the working environment → productivity increases → pursuing the sustainable development.</p>	<p>- As the quality of OSH system is assured, then the productivity and efficiency would increase.</p>

<p>Theme 4: Implementation of OSH legislation in Vinacomin</p>	<p>- Vinacomin is among 36% of enterprises in Vietnam that complied with the basic OSH law.</p>	<p>- Implementation of OSH law is compulsory. - It is viewed as a backbone to improve OSH in Vinacomin.</p>	<p>- Implementation OSH legislation in Vinacomin is presented through several actions, namely strictly follow the regulations, providing sufficient personal protective equipment, organizing health examination, etc.</p>
<p>Theme 5: Solutions/ Recommendations for Vinacomin</p>	<p>Solutions should be given by both the MOLISA's and Vinacomin's efforts.</p>	<p>Vinacomin will deploy a range of activities, especially focusing on enhancing the awareness of employers and employees.</p>	<p>Solutions given over the last few years have worked effectively. No recommendations to improve the quality of OSH.</p>

## 5. CONCLUSION & SUGGESTIONS

This chapter of this thesis will provide a summary of main findings as well as answering the research question mentioned earlier. Based on the outcome of interviews and obtained information, there are some outstanding points that the writer of this research would like to contribute so as to partially solve the current problems and to improve the quality of OSH in Vinacomin Corporation.

### 5.1 Summary of main findings

Based on the result of performed interview, the overall situation of OSH in Vinacomin is viewed as having improvements in recent years, especially in working environment. Vinacomin's leaders and inspector have increasingly perceived the importance of OSH, emphasizing on managing, guiding and inspecting the performance of OSH law. Furthermore, Vinacomin has focused on promoting the communication and propaganda, too. With regards to workers, Vinacomin has equipped adequately essential personal protection equipment. Besides, they has also organized a range of activities that aims to ensure the workers' health, for instance, organizing periodic health examination or restoration of working capacity programs.

By implementing various OSH activities, the quality of OSH in Vinacomin has considerably improved. Nevertheless, there are still a number of occupational accidents and diseases occurring every year. The main reasons of these accidents and diseases mainly stem from two factors that are employers and employees. With respect to employers, some of them have not perceived the importance of OSH while the others do not have enough specialized knowledge, experiences, technical management skills, safe management skills on OSH to guide and train workers. With regard to workers, most of them stem from rural areas that have not been trained carefully how to prevent occupational accidents and diseases as a result of insufficiency in propaganda and dissemination of OSH regulations. Moreover, with the increase of importing and utilizing modern equipments and machineries in

production, they have not been instructed properly how to operate and use those equipment and machineries. Consequently, Vinacomin's operation has greatly been affected by these occupational accidents and diseases. Along with the loss of lives (averagely 20 workers per year), Vinacomin has spent a huge amount of budget on paying compensation and allowances for workers, namely 6 billion VND for all occupational accidents and diseases (equivalent to \$ USD 281.000). Besides, their productivity and reputation are impacted seriously, too.

Apparently, OSH plays important role in the Vinacomin's sustainable development. They indicated that employee is viewed as the core factor in their development, for the reason that having healthy workers will certainly enhance the productivity and efficiency in production sustainably. Hence, assuring the quality of OSH and working environment is the best way to protect their workers' health. Besides, not only does the OSH impact on the Vinacomin's budget, but also affects workers' psychology, and even the social security. Due to the awareness on the importance of OSH, Vinacomin has increasingly attempt to give several solutions so as to decrease the number of occupational accidents and diseases and to improve the quality of OSH in the upcoming years.

## **5.2 Implications for the commissioner**

According to the performed interviews, the problems of OSH system mainly stem from the awareness and the actions of both employers and employees. Therefore, the solutions should focus on programmes which are able to enhance the perceptions of OSH. Moreover, Vinacomin should coordinate with the government in the effort of giving the best decision to improve the quality of OSH system. There are three main factors that would affect the quality of OSH in Vinacomin, namely the government (the MOLISA), employers and workers in Vinacomin.

### **On the side of Ministry of Labour, Invalids and Social Affairs**

In term of policies

The MOLISA should revise the contents of policy related to occupational health and safety in the Labour Code, developing the Act on Occupational Health and Safety. Furthermore, they should set up additional policies to encourage workers to improve working conditions and working environments. Studying and consolidating policies to award achievements and penalize violations on occupational health and safety are also considered as a solution to prevent the recurrent violations. Besides, the occupational accident and diseases have caused many negative impacts on the workers' lives, so to compensate partially the pains which workers have to suffer; the government necessarily establishes the Compensation Fund for Occupational Accidents and Occupational Diseases. In addition, it is essential for government to develop policy and mechanisms for the purpose of encouraging the development of services for consultancy, verification, education and training in OSH.

### **On the side of Vinacomin Corporation**

To decrease the number of occupational accidents and diseases and to improve the working conditions sustainably, Vinacomin should divide main solutions into four groups, namely. By this way, Vinacomin may address the root of OSH and move toward to the zero accidents and diseases and pursuing the sustainable development.

#### *Solutions for OSH management system*

Vinacomin should assign tasks and responsibilities in the work of occupational health and safety clearly, and review duties and functions to avoid overlapping. Since the responsibilities are allocated obviously, the implementation and the management of OSH will be better.

In addition, Vinacomin should organize several meetings to draw upon the experiences based on the accidents and diseases occurred, emphasizing the reasons

and the consequences of these injuries to all the workers so that people may raise their awareness about the danger of occupational accidents and have their own effective preventive measures.

Moreover, it is essential that Vinacomin should review and supplement the guidance of modern machinery and equipment processes, regulations of OSH and managerial records on OSH that ensure the specific and clear contents of these documents are close to the actual conditions. Thus workers will be likely to understand easily and proactively prevent the occupational accidents due to inadequate knowledge. Focusing on steering to create the best working environment for workers is also necessary for Vinacomin. Every worker should coordinate to perform tasks under the direction of managers in order to avoid the loss of control in production.

#### *Solutions for propaganda and training*

Propaganda and training play crucial role in changing the workers' perception and understanding on OSH. In other words, both employers' and workers' perceptions, attitudes and behaviours would certainly affect the safety at work in the direct way. Therefore, to address the root of problems, both employers and workers have to enhance their awareness as well as their knowledge on OSH unceasingly.

As a result of unqualified trainers on OHS, Vinacomin should recruit experts on OSH to train both of employers and employees. Besides, Vinacomin may coordinate with some international organizations which are working in the field of OSH to perform the exchange of trainers or initiatives. This is likely to enhance the understanding of workers on OSH and diminish the number of occupational injuries because of unqualified trainers.

Besides, Vinacomin should figure out training plans and programmes concretely in the whole year, thereby the workers' understandings and perceptions on OSH are always improved and consolidated in progress. Specially, the trainings in improving

technical skills must be emphasized on those who regularly use and operate modern equipments and machines and materials that require strict safety application. Furthermore, Vinacomin could attract all the workers to perform the task safe by means of boosting advocacy and information on OSH through internal media system and consistently implement every morning so that all workers would be well aware of OSH before starting a working day.

#### *Solutions for implementation of OSH law*

OSH law is viewed as the fundamental framework of practices in OSH activities. Therefore, Vinacomin should pay their attention on complying with OSH legislation.

In addition, to promote the campaign of being aware safe work, Vinacomin may strengthen a statue of safe and health work management and implementation. Accordingly, those who have excellent performance in production and still make sure of safety and health should be complimented and rewarded provided by Vinacomin so that workers are always inspired and encouraged to comply the OSH regulations.

#### *Solutions for inspection activities*

Improving efficiency and quality of inspection and investigation in occupational accidents and diseases is considered as very important. Vinacomin should collaborate in monitor and inspections in order to have more accurate result and general perspective on OSH system. Moreover, by well cooperation in investigation in serious injuries, Vinacomin will be able to find out the actual reasons that may draw experiences from occupational injuries and disease.

#### **On the side of workers in Vinacomin**



Apparently, workers play significant role in the progress of decreasing occupational accidents and diseases. First of all, they should have their own understanding about OSH as well as preventative measures. Besides, they should participate fully in the course of training programs on OSH, and complying seriously with all the OSH provisions in production. Since workers will be affected directly from their own attitudes and behaviours. Moreover, as noticing a risk or an incident, they should promptly report to the managers.

### **5.3 Suggestions for further research**

The findings acquired in the course of this research can be utilized as a fundamental framework for further study that performed not only for the case of Vinacomin, but also by any researcher who take the field of OSH and sustainable development into consideration. Since this research was undertaken in order to not only find out the impact of OSH in Vinacomin, but also to gain important information about the relationship between the quality of OSH and the enterprise's sustainable development that can be utilized for any enterprise or any corporation.

Specifically, since this study was conducted to analyse an enterprise case, further research may be undertaken to provide a wider overview on the OSH in Vietnam, for instance, OSH in several enterprises. In case the further study is implemented on the scope of nation, there are some significant findings in this study that could be used as a basis, namely *the importance of OSH, the reasons and consequences of occupational accident and disease, the linkage between OSH and sustainable development, the solution to improve the quality of OSH*. However, as a result of performing at national level, the further study has to probe more detailed information and be able to generalize the issues related to OSH. Besides, the limitation of this research is the solution of improving OSH on the side of government and workers. Therefore, the further research may conduct more detailed probing on workers and government's side that they will provide more information on solutions.

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