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Occupational Safety and Health Practices in Manufacturing Industry in the North India

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Abstract: *Industrial and economic growth has been grossly affected by industrialization on a global level and consequently the income and quality of life have undergone a sea change resulting in the increase of accidents in the workplace and the manufacturing industry. However, in India people are not much conscious about safety as well as the health of the workers in the industrial sectors. The study in hand depicts the safety and health measures to be taken into consideration in various fields of industry and it highlights the benefits of 'Occupational Safety and Health Practices'. In addition to that, the study identifies various types of hazards such as physical injuries and accidents at any workplace. The survey was conducted at a manufacturing unit of Reflection India in Panipat, India. The data was collected at Reflection India, an Export House for handlooms and Textile, at Panipat, Haryana, India by using a qualitative method. It includes both primary and secondary data. During the survey at Panipat, it is found that very few industries are applying Safety and Health Practices or they are conscious or worried about the health and safety of their employees. However, it is worth noting that Export Houses have to do compliance to the requirements of the importers and as a result, most of the Export Houses have taken OSHP into consideration whereas the smaller units who are working for domestic levels are not very strict about OSHP and lack willingness to understand its importance even.*

Keywords: *occupational safety and health practices, manufacturing industry, hazard*

I. INTRODUCTION

Globally, occupational health and safety standards are very inconsistent among different economies. While, stringent and worker-priority are core values behind policy in developed worlds, it shifts to maximizing profits in the developing worlds, such as India. In this context, Jilcha et al, [1] carried out a comprehensive literature review focusing on all the investigations and scientific reporting undertaken starting 1980s.

The health and safety standards in India have been really pitiable since time immemorial. Although we have strong legislation to protect the rights and health of the workers yet their implementation is not very proper and only some elite workers can take the benefits of it [2].

The worst problem is that only 8.8 per cent of workers are organized in India. We have an abundance of the workforce which includes low or unskilled workers who can be easily exploited. Due to the high rate of unemployment getting a job is more important for workers and they ignore the risks or hazards involved in it.

Our national policy stresses [3] the importance of safety and health which prohibits the employment of a child under 14 in any factory, mine and in any hazardous occupation.

The policies aim to protect health and the life of all the workers in India. It also prevents the employment of the workers in occupations which are unsuitable for any particular age of workers.

Our state policy makes provisions for the humane conditions for the workers. Our constitution also provides a framework with strong policies and solid programs for occupational health and safety.

Ramachandran et al [4], in their study, give a comprehensive review of Occupational health and safety (OSH) standards in India and the need to upgrade these for a sustained economic growth.

True OSH standardization can only come through mass education and empowerment of Indian laborers as they lack substantial education in this field regarding their rights and responsibilities [5]. Since, most of labor oriented nations are in South Asia, which is made by developing nations, the global picture of overall accidents and injuries have shown an increased trend in recent decades [6]. There is a marked difference between OSH standards in developed and developing nations, which clearly results in the gross output and quality [7].

A. Statement of the Problem

Health and Safety protect the welfare of employers, visitors, employees and customers are making an excellent business sense. The workplaces, which overlook health and safety, could lose staff and in addition, might increase cost and reduce their production and profitability as well. The manufacturing industry and the workplaces suffer a lot due to various accidents, injuries and diseases. In a developing country like India, we are not much sensitive and aware of the safety and health issues related to the worker in the manufacturing industry. It has been seen that the employees lack the knowledge of health and safety consciousness and as a result, the cases of accidents and ill healthcare increasing in industry. Health and Safety protect the welfare of employers, visitors, employees and customers making an excellent business sense. The workplaces, which overlook health and safety, could lose staff and in addition, might increase cost and reduce their profitability as well. It is the right of every employee or worker to have a safe and healthy environment in the workplace. Conversely, the global scenario is very much alarming. The International Labor Organization (ILO) calculates that approximately 125 million workers are becoming victims of occupational accidents and diseases annually. Among them, about 220,000 workers die and approximately 10 million are disabled seriously. Third World is the worst affected and roughly 75 per cent of the total global workforce works in Third World countries only and they have to suffer due to poverty as well as unemployment consequently their status of the health and safety has become very bad. A toll of these accidents as reported by Indian government’s statistics department is shown in TABLE I.

TABLE I . Data of accidents observed in India [8].

| Year | Fatal - Number | Fatal - Incidence rate (#) | Non- Fatal - Number | Non- Fatal Incidence rate (#) | Total - Number | Total - Incidence rate (#) |
|------|----------------|----------------------------|---------------------|-------------------------------|----------------|----------------------------|
| 2000 | 486 | 0.22 | 23490 | 10.7 | 23976 | 10.93 |
| 2001 | 627 | 0.19 | 27737 | 8.48 | 28364 | 8.67 |
| 2002 | 540 | 0.16 | 19913 | 5.98 | 20453 | 6.14 |
| 2003 | 525 | 0.11 | 15907 | 3.23 | 16432 | 3.33 |
| 2004 | 562 | 0.08 | 14458 | 2.13 | 15020 | 2.21 |
| 2005 | 613 | 0.09 | 14163 | 1.97 | 14776 | 2.06 |
| 2006 | 1068 | 0.13 | 18844 | 2.28 | 19912 | 2.41 |
| 2007 | 821 | 0.1 | 14469 | 1.81 | 15290 | 1.91 |
| 2008 | 478 | 0.06 | 5494 | 0.74 | 5972 | 0.8 |
| 2009 | 668 | 0.1 | 5983 | 0.92 | 6651 | 1.03 |
| 2010 | 1064 | 0.1 | 10111 | 0.93 | 11175 | 1.03 |
| 2011 | 1083 | 0.09 | 9358 | 0.81 | 10441 | 0.9 |

1) The objectives of the research follow below

The study in hand depicts the safety and health measures to be taken into consideration in various fields of industry and it highlights the benefits of ‘Occupational Safety and Health Practices’

- a) To identify safety and health practices going on in the factories and manufacturing industry to avert accidents and injuries.
- b) To identify benefits related to safety and health practices in the industry.
- c) To identify various kinds of hazards, injuries and accidents happening industry.

2) *Review of OSH Policies:* ‘Under the Constitution of India, labor is a subject in the concurrent list where both the Central and the State Governments are competent to enact legislation subject to certain matters reserved for the Central Government. The Constitution of India provides detailed provisions for the rights of the citizens and also lays down the principles in the governance of the country called as Directive Principles of State Policy’ [9] The statutes for monitoring and regulating OSH at workplaces chiefly exist in four main sectors e.g., manufacturing, ports, mining and construction. The safety and health at the workplace are one of the major subjects assigned to Ministry of Labor & Employment (MoL&E), Government of India under the allocation of Business Rules. In workplaces, it is not possible to isolate health and safety regulations from problems such as wages, job security or the welfare of employees and the wellbeing of employers. It is the paramount duty of an employer to look after the welfare of his employees and to make the environment of the workplaces safe from all the occupational hazards and make the employees aware of the various risks involved in the job they perform. We have numerous trade unions whose job is also the same but unfortunately, they are not ready to perform their duty in this regard as they are also not much aware of the laws relating to health and safety. The legislation on health and safety was introduced about 70 years ago as the Factory act, 1948 and it was amended after the Bhopal Gas Tragedy on 1 Dec 1987. OSH ensures all the guidelines related to health and safety and in case of their violation, the business can be shutdown. On the other hand, this is just one reason, however, there are some more reasons that show the importance of these standards.

B. Prevention of Injuries and Illness

Health and safety measures reduce the chances of injuries and illness greatly. These measures can help the employees to understand the hazards in the work environment. The training will educate the employees about how to maintain the safety level and also acquaint them with suitable workplace procedures, the practices to prevent any possible injury and illness or even about contamination due to improper hygiene. Therefore, the implementation procedure related to health and safety

C. Reduction of Health and Safety Hazards

Chemicals, pieces of equipment, certain behavior or activities can cause injury or hurt the workers. Health hazards are usually caused due to contamination of the food items or the unsafe handling or cooking practices. Sometimes, it is observed that communicable diseases breakout due to careless attitude of the employees. While working with dangerous gases or chemicals, there is a great risk of careless handling or storage and these factors might cause dangerous exposure to the workers. So, the guidelines for the handling of the hazardous material by OSH must be followed. Similarly, one must have a proper emergency as well as evacuation plans in case of emergency for the workplaces

D. Avert Serious Accidents

OSH makes and enforces laws related to health and safety thus create guidelines for implementing health and safety measures. In case the environment at the factory and workplace is not safe then the company may have to pay hefty fines or even the company can be temporarily or even permanently shut down due to violation of the safety laws. These standards should be enforced seriously otherwise the company can be in problem. If we don't meet the health and safety standards the company can lose not only business, money even the customer base as well.

Even though the Insurance Company covers injuries and illness at the workplaces, it could be more expensive and costly affairs if we are negligent. The cost includes clean-up and repairs, accident investigation, expenses on litigation, new hiring as well as training of new workers. However, enough can be saved if we implement the laws in the company's infrastructure. Specific to south Asian countries, an inference towards the much-needed OSH operations and regulations is strongly seen in TABLE . As population and labour portion in it is strong.

TABLE II
Demographic and Economic Indicators of South Asian Countries [10].

| Indicators | Country | Bangladesh | India | Nepal | Pakistan | Sri Lanka |
|---|---------|------------|-------|-------|----------|-----------|
| Population (million) | | 120 | 897 | 18.5 | 131.6 | 18.1 |
| Population Growth (percent) | | 2.17 | 2 | 2.1 | 2.8 | 1.4 |
| Labor Force (million) | | 51.2 | 321 | 7.17 | 36.7 | 6.1 |
| Employment Distribution (percent) - Agriculture | | 66 | 65 | 80 | 52 | 37 |
| Employment Distribution (percent) - Industry | | 12 | 12.5 | 3 | 19 | 23 |
| Employment Distribution (percent) - Service | | 22 | 22.5 | 7 | 29 | 40 |
| Literary Rate (percent) | | 35 | 52 | 39 | 38 | 89 |
| Per Capita Income (US\$) | | 265 | 265 | 180 | 495 | 709 |
| GDP Growth Rate (percent) | | 4.7 | 7 | 6.1 | 6.1 | 5.5 |
| Growth Rate (percent) - Agriculture | | n/a | 2.4 | 5.4 | 6.7 | 3.3 |
| Growth Rate (percent) - Industry | | 6 | 11.7 | 4.9 | 4.8 | 9.2 |
| Growth Rate (percent) - Service | | n/a | 7 | 7.3 | 5.8 | 5.1 |

*N/A – data not available.

- 1) *National Policy in India:* Safety and health hold a very important place in the constitution of India and it prohibits the children below 14 years to work in factories, and in any hazardous activities. The aim is to protect the workers and their health as well as strength and maintain the humane conditions at the workplace.
- 2) *National Legislation in India:* Indian Legislation offers an important foundation for safety in the workplace. For making it more meaningful and successful the legislation should make the safety and health laws more stringent and the legislation also needs revision and updating them regularly. Our legislation on occupational health and safety was framed about 50 years ago when India was ruled by British, therefore, the majority of the health and safety laws were based on the British Factories Act. The Factories Act, 1948 has been amended with passage of time above all after the Bhopal Gas disaster, which was quite preventable. This forced us to think of how to prevent disaster then how to deal with the occurrence of disasters. Hence, an amended The Factory Act came was introduced on 1 Dec 1987.

Some other laws for the welfare of the workers follow in OSH Legislation [11-15];

- a) The Factories Act 1948, (amended 1954, 1970, 1976, 1987)
- b) The Mines Act, 1952
- c) The Dockworkers (safety, health and welfare) Act, 1986,
- d) The Plantation Labour Act, 1951
- e) The Explosives Act, 1884
- f) The Petroleum Act, 1934
- g) The Insecticide Act, 1968
- h) The Indian Boilers Act, 1923
- i) The Indian Electricity Act, 1910
- j) The Dangerous Machines (Regulations) Act, 1983
- k) The Indian Atomic Energy Act, 1962
- l) The Radiological Protection Rules, 1971
- m) The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989

3) *Factories Act*

a) *On Health This Law Requires Employers*

- to ensure the cleanliness of the workplace;
- make effective arrangement for treatment and disposal of waste and effluent;
- make suitable and they're provisions for adequate ventilation;
- maintain temperatures to secure reasonable comfort for workers;
- remove any dust or fumes from the workplace which may be injurious to workers;
- prevent overcrowding by maintaining a specific cubic area for each worker;
- provide sufficient and suitable light;
- make suitable arrangements to provide clean drinking water conveniently situated for all workers and;
- provide suitable latrines and urinals to specified standards.

b) *The Factories Act Requires Employers To Provide Basic Safety Measures Including*

- securely guarding all parts of dangerous machinery;
- precautions for working on machinery;
- emergency devices for cutting off power;
- maintain hoists and lifts;
- lifting machines, chains, ropes, and other lifting tackle must be maintained in good condition;
- test pressurized vessels regularly;
- ensure walking surfaces are of sound construction;
- provide protective equipment;
- measures to remove gas and dust before entering confined places;
- measures to prevent fires.

It is mandatory that a factory must disclose information about the above laws.

II. LITERATURE REVIEW

For the study of safety and health, the researchers have been reviewing several works of literature concerning the work-related safety and health policies and practices, their benefits and the types of hazards and the types of injuries or accidents that take place in workplaces.

Policies Regarding Safety Promotion.

Safety promotion policies should include various recreational activities, awards and incentives to encourage employees to be careful about safety in the workplace. Above all safety, promotion policies would persuade employees to control safety hazards and implement safety programs and encourage them for self-protection action with an objective of creating safety management.

The benefit of Occupational Safety and Health Practices (OSHP)

The implementation of occupational safety and health practices (OSHP) has significantly reduced the incidents of illness, accidents and injuries [16, 17]. Besides this OSHP helps to express to all the stakeholders that the business is handled with social responsibility, improves the image or brand value as well as increase the reputation of the firm. It also helps to maintain and increase the confidence of the investor and helps to enlarge positive stakeholder involvement at all levels and enables the company to meet demands and expectations of the customers and motivates employees to stay longer [18].

Furthermore, OSHP helps in increasing the competitiveness of an organization. OSHP creates the financial benefits for the industry. The businesses with proper safety programs at workplaces can be beneficial in reducing loss in production and damages to pieces of equipment as well as reduces compensation costs [19].

A. Types of Hazard In The Manufacturing Industry

- 1) *Noise*: Loud noise makes others should raise up his voice to the level so that it can be heard comfortably when speaking to other people at the one arm's length away from them [20, 21]. The studies suggest that this definition corresponds roughly A weighted background noise level of 85 dB(A). The noise can cause ear damage [22]
- 2) *Chemical hazards*: 'The example of chemical is cement, cleaning products, acetone, hydraulic oil, disinfectants, solvents, resins, paints and detergent' [23]. 'The workers working with the chemicals no matter how of the duration of exposure with the chemical was classified as chemical hazards. The chemical hazard exposure to the workers in manufacturing is by the skin contact' [22].
- 3) *Airborne Hazards*: The Hazards which are airborne are produced by gasses, dust vapors, fumes or smoke, forklift gases, glue vapors or fumes caused by spray painting even with a little exposure, can expose the workers to airborne hazards' [22].
- 4) *Sun Exposure*: The problem of sun exposure is faced by the workers who work out I sun and are exposed to direct sunlight. The workers who work in construction fields, agriculture, including transport workers and the office workers who face the exposures under the sunlight directly even when they are inside a vehicle. Above all, if some work is exposed to sun for more than four hours a day, it is classified as sun exposure [22].
- 5) *Vibration*: Usually, in the factories, the pieces of equipment and tools cause a lot of the vibrations hazard. The tools like angle grinders, electric saw drills, forklifts, chain saws, milling machines, and vehicles cause a lot of vibration. This vibration may result in numbness, reduce the capability for feeling vibrations, cold and heat. Moreover, it can cause some problems in muscles, joints, tendon and back problem [22].

B. Types of Injury/Accidents

There are many types of accidents in a factory or at a workplace and they can result in death, causing permanent disability, and even causing non-permanent disability [24]. We have four types of most common accidents in the workplaces:

- 1) *Overexertion Injuries*: The most common is overexertion injuries which are caused due to lifting, dragging, pulling, pushing, and carrying. It can cause the musculoskeletal disorders (MSDs) such as pain, sprain and injuries to the foot, arms, legs, and joints. They are the result of some kind of heavy manual labor, bad or awkward postures, even the repetitive movements of arms legs, and previous existing injury may also increase the risk of further injury [25].
- 2) *Electric Shock*: Electricity hazards such as electric shock and even electrocution can cause big issues in the workplaces. The electrical equipment causes electric shock, fire due to some faulty wiring or pieces of equipment. So, there are some common reasons for injuries and accidents which may become serious or fatal [26]. All those working with electricity are usually exposed to a higher risk of such types of injuries. The electric shocks may lead to various types of injuries such as fall from roof or ladders or scaffolds [25].

- 3) *Chemical and Fires*: The chemical exposure, burns, as well as serious injuries, can lead to the fatal situation in a workplace. To prevent fire in the workplace, the management must carry out a fire safety threat assessment and also keep it up-to-date [26]. The fire extinguisher must be installed in the workplace. A special training program for employees should be conducted to prevent any such accidents in the workplace [25].
- 4) *Slips and Falls*: Another common cause of accidents in the workplaces is slipping and falls due to wet or damaged floor. This can result in head or back injuries as well as broken bones [26]. There can be two types of falls i.e. same-level falls and the falls from height. Generally, the most frequent falls are the same level falls which are on relatively same level surfaces; they are caused due to some disruption of normal walking gait and can cause a sudden imbalance. Whereas the falls from a height may result in fractures in bones or internal injuries or permanent disability and even death at work [21, 27, 28].

III. RESEARCH METHODOLOGY

A proper methodology is very important for gaining efficiency data and gain knowledge along with information for the research studies. Generally, two kinds of methods are used for research and they are qualitative and quantitative in approaches. Here the researcher has done research at Reflection India, a manufacturing and export house at Panipat, Haryana, India, by using a qualitative method. The interviews were conducted at various levels and the literature was reviewed to gather the required data and information. ‘The qualitative method is related to understanding some aspects of social life. And in general, the methods can generate words rather than the number of data for analysis. Qualitative data are analyzed about what the data explain about person’s experiences, opinions and meaning’ [29].

Data Collection Method

A. Primary Data

Usually, the information obtained through qualitative method includes face to face interviews or consultations because it helps in getting clearer moreover specific information. The researcher obtained the primary data from an interview with the Managing Director and the Director of Reflection India for the study. ‘An interview is a simple way for us to collect first-hand data from the third party. Normally, an interview means a personal meeting between people when questions are asked and answered’ [30]. ‘A successful interview can provide useful information to the researcher to complete the study’ [31]. For getting the data and information from Reflection India the researcher prepared some questions for the purpose of the interview as shown in Fig. 1.

Interview questionnaire

I. Aspect demography
May I know your full name and your age?
What position do you hold in the company or in a particular department?
Since how long you are with the company?

II. Aspect Safety and Health Practices
 What is your main product line?
 Does the manufacturing involve any kind of risk to workers?
 Does the company make the Safety and Health Practices available in the workplace?
 May I inquire about the kind of Safety and Health Practices applied in the workplace?
 What efforts are made by the management for the safety and the health of the employees?

III. Benefits of Occupational Safety and Health Practices [23].
 Do you think it is beneficial to adopt safety measures in the workplace?
 According to you, Occupational Safety and Health Practices have been beneficial to your organization or not? What are the possible benefits?

IV. What types of hazards do employees face in the manufacturing industry?
 What are the most common hazards taking place in the workplaces?
 What efforts are made by you to reduce the hazards on-site?

V. Aspect types of injury/accident happen in the workplace
 What types of injuries or accidents happen in your workplace?
 What are the possible reasons?
 How can they be prevented?

SHP

Fig. 1 Interview Questionnaire template used in the study [32].

B. Secondary Data

‘Secondary data is the information or data that have been collected, readily available and documented from other’ [33]. Here the secondary data is obtained through books, literature review, electronic media which includes websites, blogs, articles, journals, policies, and reports which is related to the research.’

A literature review is an evaluation of a body of research that addresses a research question. During this research, the researcher studied a number of journal articles associated to the subject of research before making some reviews about it. Thus, the data composed and gathered was of great help to the researcher for a better understanding of the topic.

IV. RESULTS AND ANALYSIS

The researcher analyzed the information and data that was collected by taking the interviews at the handloom manufacturing industry, Reflection India which is located at Jatel Road, Panipat, Haryana, India. The interviewee Mr. M.M. Raj is the Managing Director of the company and Mr. Eish Bhardwaj the Director of the company. The information and data were gathered by taking an interview and personal observation by asking various questions. During the interview session, the researcher focused on the question about Safety and Health Practices that are used in the workplace and also questioned about the benefit of Occupational Safety and Health Practices and various types of hazards and accidents that happen in the company and inquired the measures taken by the management to avert the accidents in future. The data thus gathered is then analyzed in a way so that it could become useful and valuable information for the employers as well as employees of the manufacturing industry.

Occupational safety and health practices applied in the manufacturing industry.

According to the Managing Director of Reflection India, the company has provided safety and health practices in every workplace. Above all, they provide training of safe use of the equipment. Special sessions are arranged by the manufacturing companies about the safe and proper handling of the tools and equipment.

Qualitative results for the reported company is tabulated in Table III.

Table III
OSHP practices followed by Reflections India, Ltd.

| OSHP practices | Applied by Reflection India, Ltd. |
|---|---|
| Health and Safety Programs | Provides the safety programs, for instance, special training about the handling of the machinery to the employees |
| Personal Protective Equipment (PPE) | Provides PPE (gloves, goggles and mask) based on requirements and risk associated. |
| Maintenance Standards and Procedures | As per the Director of Reflection India, they take care of the recommendations of the manufacturer of the tools, the machinery, the pieces of equipment and even the materials used in the factory by employees. In addition, the supervisors are held responsible for monitoring the items and procedures used by the workers and employees. |
| Periodic Health Care Sessions in the Factory Campus | At least one such free camp with the help of local doctors is organized every three months, where the worker is given free check- up, counselling and medicines. |

Advantages of Occupational Safety and Health Practices (OSHP)

Director of Reflection India stated that the application of OSHP in the factory can help to improve the morale of the staff and reduce the absenteeism. Indirectly it maximizes performance and productivity of the company because the rate of accidents also reduces when safety program and practices are applied. In addition, when the rates of accidents reduce the cost of running a business such as health care and insurance cost also decrease, the company does not need to spend huge sum of money on compensations for workers. It increases the performance of the organization.

Furthermore, when the performance of an organization increases, the company gets a better chance to win the contracts [25].

V. CONCLUSION AND DISCUSSION

Employers or management must be fully committed for the ‘safety training program ‘to make their employees competent to handle risks of various levels and they should demonstrate their concern and support and make the safety management effective. Particularly while forming any company, safety programs, their goals, policies, plans and measures should be thoroughly documented as the company’s management is responsible for most of the safety issues in the organization.

A. Safety Training

It is obligatory on the part of every organization to provide the training to every level of employees so that their knowledge can be improved along with their behavior and skills. It should include such topics as compliance for promotion of safety, prevention of accidents and personal protective measures and equipment, emergency responses in case of accidents caused by machinery and chemicals used in a factory. These accidents can be minimized by making the workers aware of the workplace hazards and it can improve safety level in factories and workplaces. Effective training programs would decrease the incidents of accidents and injuries. Hence it can reduce legal liabilities, worker compensation claims, property damage etc.

B. Safety Rules and Procedures

The safety rules and procedures can improve the behavior of employees in the workplace. They include periodic safety inspection; supervisors are required to enforce safety rules as well as effective health rules and the procedures to prevent the accident. The safety rules set up the standards of safety and employee behavior, and also establish a system to correct workers’ behaviors so that employees can understand the safety rules in addition to the procedures to be adopted. By the way, the management must take responsibility to communicate the rules and procedures in some local language so that the employees can easily understand them.

The study in hand is to find out and identify the Occupational Safety and Health Practices particularly in manufacturing units of the industry. The purpose of the study has been attained through interviews with the Managing Director, the Director and the HR Manager of Reflection India to know their views and shared their experiences in addition to it studied the literature and discussed the matter with the employees. The main objective of this study is to find out and identify the Safety and Health Practices being adopted in the export house. The study has also revealed the preventive measures adopted in manufacturing units of the industry to avert injuries or accidents, the benefits of OSHP are identified. The study also identifies types of hazards, injuries and accidents which usually happen in the factories.

Overall the broader picture for the Indian-manufacturing industry is very ill-struck by various converging factors which result in poor OSHP regulations and standards, as shown in Fig. 2.

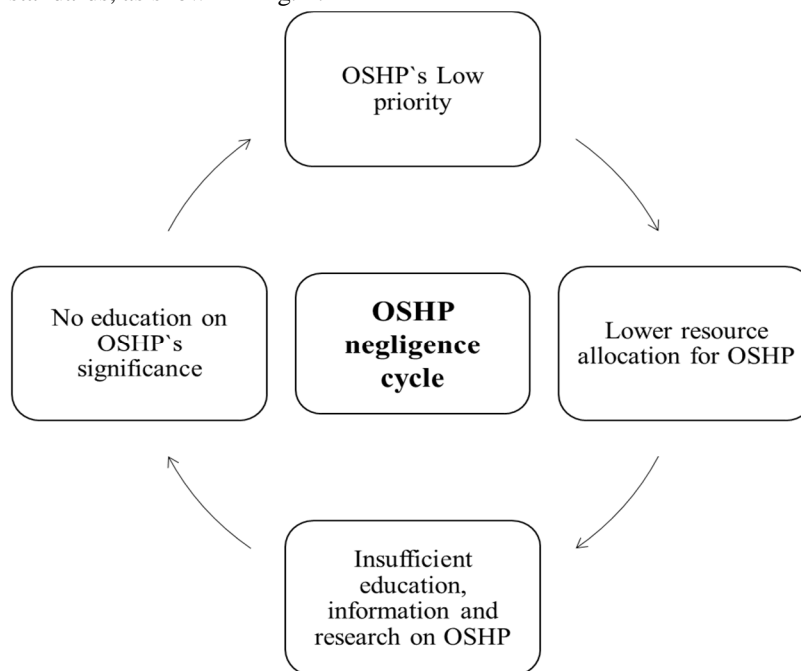


Fig. 2. Flow-chart showing how OSHP neglect is dependent on a converging cycle.

C. Recommendations

It is recommended that the managers can apply the OSHP, consider the reviews on literature and data analysis made in this study for improving management of their safety level and performances in their organizations. The improvements in safety performances can definitely reduce the possibility of accidents, costing and productivity. Above all, it will help in creating a better image of the company. Especially the compliance factor is very important in all the export houses as the foreign buyers or importer take a very serious note of the safety measures provided in the workplace. In addition, the management must pay special attention and arrange a special session for the training programs to enhance safety and ensure that the employees should be aware of safety rules. Furthermore, the employers and management should make it compulsory for the employees to wear the PPEs in the workplace and even penalties can be imposed on the workers who do not wear the PPEs. Moreover, the management and the employer can also improve the design of the workplace and make it worker-friendly and provide them with a comfortable working place and environment, it will maximize productivity and reduce the hazards in the factory or the workplaces. In addition, advanced technology for example filtration systems can be used to reduce airborne hazards and even the devices equipped with noise cancellation technology can be used to reduce noise hazards in the workplace.

Based on the interviews, it can be concluded that the most essential Safety and Health Practices are the health and safety programs and it includes safety training programs for the workers to avert the injuries and accidents in the workplaces and factories. The benefits of OSHP are that it helps in maximizing the production and performance of an organization. The productivity increase as accidents is prevented. The worst hazard in the industry where the survey was made is airborne hazards and the most frequent injuries or accidents are caused due to slips along with trips. After the implementation of the Occupational Safety and Health Practices, the numbers of accidents and injuries in the workplaces have relatively enough reduced. In conclusion, it was observed that very little research was conducted about the Occupational Safety and Health Practices (OSHP). Consequently, this study is meant to identify the various practices which should be applied in the workplace and manufacturing industry. The interviews have revealed and identified different types of Safety and Health Practices, the benefits of Occupational Safety and Health, the types of hazards and injuries or accidents which can happen in factories and manufacturing industry and how can they be averted.

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