

CONVICTION AND REALIZATION SAFETY AND HEALTH PRACTICES: LEVERAGE TO AN ORGANISATION

Dr. Arun Pardhi, Professor

ASM'S Institute of Business Management & Research Chinchwad, Pune

Dr. Sham Bachhav, Professor

ASM'S Institute of Business Management & Research Chinchwad, Pune

Dr. Dilip Nana Aher, Associate Professor

ASM'S Institute of Business Management & Research Chinchwad, Pune

ABSTRACT

Studies on safety management practices with different industries have been an area of interest for researchers for the last three decades because of the profession, increasing industries, and innovative safety and health practices that enable an organization to utilize the workforce effectively. The present era is expanding daily, especially in the engineering, automobile, chemical, and ancillary manufacturing sectors. There are roughly 7268 industries in the Pune area, and workers spend about one-third of their lives at work. Employees' basic human rights include the expectation of a safe workplace. However, due to a lack of using straightforward preventative measures, there are poor working conditions even in industries that are dangerous. This study has been undertaken in industries situated in Pune to identify safety and health practices by industries and their advantages to an organization.

Keywords: occupational health, safety and health education and training, hazard control, use of personal protective equipment (PPE), innovative practices, effective workforce utilization, and organizational benefits.

Introduction

At present, in the Pune region, there are about 106445 companies belonging to different categories like engineering, automobiles, pharmaceuticals, accessories manufacturing, forging, etc. As per the "The Factories Act, 1948" out of these companies are classified as hazardous, and employees working in these industries spend about one-third of their lifetime at the workplace including traveling. Considering the overall risk involved, they expect a safe working environment as their fundamental right, not only this it is the moral responsibility of safety managers and other executives to take utmost care of their employees by extending safety provisions as much as possible. Employees are facing dual occupational accidents, both traditional as well as new/different in diverse work settings, due to speedy industrialization, the introduction of technology, and globalization over the last two decades. However, there are still unsatisfactory working conditions at hazardous companies, which result in accidents, illness, disabilities, and even fatal accidents. Occupational hazards affect not only individuals, but also an industrial environment in terms of relationships, working conditions, profitability, stability, a negative image of an organization, and so on.

Large-scale industrialization started only after 1947 i.e. following India's independence. The nation has roughly 31000 industries with about 2.5 million workers just after independence. Industries have grown considerably more quickly in recent years, and this trend is projected to continue in the years to come. The agricultural sector employs the majority of our workforce (69%) followed by manufacturing factories (11%). As of today in our country there are about 1539 hazardous industries. Every year, 50,000 to 60,000 accidents occur.

To control occupational diseases and to ensure employee safety a joint committee of the International Labour Organisation (ILO) and World Health Organization in 1950 defined occupational health and safety objectives (OHS). Employees working in an Indian industry posed multiple de of accidents from physical, biological, mechanical, chemical, psychosocial and ergonomic issues which adversely affect employees, their families, and the organization moreover majority of employees especially contractors employees and employees engaged through third parties are illiterate and ignorant about the protective measure importance of safety while on job.

The severity and rate of industrial accidents can be reduced and controlled by adopting and implementing safety and health practices by all employees working in an industry, as safety is not the responsibility of any one person but it's the responsibility of everyone. The objectives/norms of the occupational health and safety assessment series (OHSAS-18001) ensures benefits to both individuals as safe working conditions, safety of employees, increased productivity, higher quality work, high employee morale, reduced employee turnover etc.

To improve the working conditions, control measures like mechanization of the process, proper maintenance, ventilation, and regular monitoring education of workers is emphasized.

The "plan, do, check, and act" cycle was initially intended to boost quality, but as noted in the book "Practice of Safety," Third Edition, it is perfectly compatible with enhancements in employee safety. In reality, according to Manuele's 2003 argument, quality and safety are related and may be used interchangeably in many situations. Furthermore, "safety" was used in place of "quality" Manuele (2003).

Even though it's frequently said that a company's top concern is worker safety, compliance with laws is more often than not what motivates safety action than any effort to improve safety. Lean has a proactive strategy; it is not reliant on regulations. An honest Lean effort will transform an outdated, entitlement-ridden culture into a productive one. (Hafey, 2017)

The three most crucial OSH demands are: 1. legislation to expand OSH coverage to all working life sectors, including the unorganised sector; 2. raising stakeholder knowledge of OSH; and 3. the creation of OSH infrastructure and OSH specialists. The incorporation of occupational health into primary healthcare is one of the other challenges. By Shyam Pingale

The devoted employee provides his or her full skill and expertise, making them a great asset to the industrial company. Additionally, a devoted employee is committed to the company. The business offers its workers a friendly work environment as part of its effort to sustain human relations.

Dov Zohar has stated in the field of safety research that the perspective of workers regarding the relative importance of safety vs efficiency goals in supervisory procedures shapes the safety atmosphere. This establishes supervisory safety techniques as a connection between safety atmosphere and culture, theoretically. The basic tenets of supervisory culture serve as a framework for supervisory techniques and are interpreted by employees as guiding principles for employee behaviour (climate). Of fact, because there are so many other behavioural elements at play, not every supervisory activity is directly influenced by basic assumptions. Although it is related to the overall pattern of priorities in supervisory practices throughout time, the development of climate and culture is not based on any one instance of supervisory practice. One way to introduce improvements to the safety atmosphere and culture is by bringing about a persistent shift in supervisory procedures.

SCB and coworkers' support for health were determined to have strong psychometric qualities and served as the foundation for further investigation. According to the findings, there is a positive feedback loop between high levels of organisational and supervisory support that demonstrate concern for the welfare of employees and a rise in SCB. This demonstrates how good social interactions within an organisation can have surprising positive effects on worker safety behaviours that go above and beyond standard compliance. In this study, safety performance outcomes such as intervening to help coworkers and reporting hazards appear to be influenced by organisational support in general and supervisor support in particular with regard to health concerns.

More than 20 years ago, Occupational Health & Safety Management System (OHSMS) standards and associated certifications, as well as regulatory requirements for risk control via systematic management, all led to the creation and widespread use of several OHSMS models (Hasle & Zwetsloot, 2011). However, there was originally concern about the introduction of a worldwide OHSMS standard.

Review of Literature

The adoption and implementation of safety and health practices is a very old concept. The work environment includes three important factors: man, machine, and surroundings, all of which can lead to injuries if not avoided. Man: Must wear tight clothing, safety equipment, knowledge of work, machine operations, action to be taken during an emergency, etc. Moving parts must be properly casing; spares must be available; maintenance must be checked on a regular basis; and parameters must be displayed on machine parts in an easily readable manner. Surroundings such as heat, cold, noise, vibrations, and radiation shall be taken care of. Safety and health practices shall be adopted in all the areas like, chemical, mechanical, biological, psychosocial, ergonomics, engineering, medical, legislative, canteen, general cleanliness, eatables, water, soil, garbage/waste store areas etc.

Maintaining OHSAS 18001 (Occupational Health and Safety Assessment Series) norms, conducting periodic audits, conducting safety demonstrations and mock drills, displaying safety policies in conspicuous places, conducting safety awareness training, holding periodic safety committee meetings and reviews, and so on are all examples of safety and health practises that should be adopted and implemented.

Safety refers to the condition of not being in danger or a risky situation. Having rules and procedures in place to protect employees' health and safety at work constitutes workplace safety.

Health refers to a broad range of policies, programmes, benefits, workplace supports, and connections to the local community that are all intended to promote the health of all employees. These methods are implemented in the workplace. Accidents are unpleasant incidents that occur inadvertently and unexpectedly, inflict damage, harm, or even death, and have a negative impact on all of an organization's operations.

In order to reduce workplace illnesses, injuries, and fatalities as well as the pain and financial burden they create for both the business and the employees and their families, safety and health practices at work entail creating goals for safety and health programmes.

On October 15 and 16, 2018, an international conference titled "Vision Zero" was held in Chennai, with a greater emphasis on occupational accidents and health diseases. The International Occupational Safety and Health Information Center (CIS) which is a part of the International Labor Office Geneva Switzerland is continuously monitoring preventive measures in safety and health aspects. The mission of CIS is to collect world literature that can contribute to the prevention of occupational diseases and health. CIS imparts the most comprehensive and updated information in the field of occupational safety and health. It also provides information about industry-wide safety and health issues and effects.

For the purpose of controlling and preventing occupational illnesses, CIS manages the National Referral Diagnostics Center. It has offices in Delhi, Chennai, Kanpur, and Calcutta. According to study statistics, a worker sustains an occupational injury every seven seconds, and what's worse is that each one might have been avoided. Preventative measures can protect employees from needless misery.

Every year, the National Safety Council organizes Safety Week and distributes safety posters, slogans, and other materials to workers in order to encourage them to be safe and healthy. Some of the safety and health quotes are mentioned, which may awaken the workers.

In their book "Workers' representation and workplace health and safety," Walters and Nichols (2007) make the recommendation that "workplace inspections must be done at least every three months." Additionally, if there has been a significant change in the working circumstances or if the HSE has released new information on workplace risks, there is an additional entitlement to examine.

Frick, Jensen, Quinlan, and Wilthagen, (2000). Systematic Occupational Health and Safety Management – Perspectives on an International Development. Pergamon, Oxford. It is mentioned in the abstract that "The concepts of systematic OHS management and OHS management systems have been increasingly popular among regulators, employers, and other stakeholders in advanced industrialised nations during the past 15 years. These connected but different ideas are, in fact, now making their way into underdeveloped nations. An important new regulatory strategy has arisen that encourages employers to embrace comprehensive, systematic, and preventative responsibility for OHS rather than merely prescribing individual remedies. A growing number of (often big) enterprises have also voluntarily adopted this method. The ways in which the government encourages OHSM, as well as the structure and elements of both these and volunteer management systems, differ greatly. There hasn't been much effort made to critically evaluate the recent advancements, much alone compare various OHSM models, look at implementation issues, or pinpoint their advantages and disadvantages. This book aims to fill that gap. The book covers the origins, development, use, and value of OHSM and offers a worldwide perspective on their efficacy in managing ill health at work. It includes several comments from top specialists in Europe, America, and Australasia. It also looks at the effects of recent adjustments to the labour market, economy, and institutional and regulatory frameworks.

A meta-analysis study by Robson (2007), however, did not find clear evidence that OSH management systems lead to significant improvements in companies that have to implement them when these are compared with similar companies without such formal systems. Although they are meant to cover all relevant HSW issues, one can say that OSH management systems are in industrial practice still more focused on safety than on health (Hasle & Zwetsloot, 2011).

Important Safety and Health Practices Adopted by the Organisations are-

- i) Efforts to eliminate work related accidents
- ii) Preventive measure to avoid employee's absence and loss of productivity due to accidents
- iii) Monitoring employee's health periodically to maintain efficient working

- iv) Analysis of employees behaviour and attitude towards safety and health aspects
- v) Formation of safety and health policies and their strict implementation
- vi) Audits and reviews on safety and health status to keep employees motivated
- vii) Periodical examination of machines, tools, ropes etc. by external experts
- viii) Periodical medical examination of employees
- ix) Periodical meetings on safety and health aspects between respective committee members
- x) Initiatives by all towards safety and health promotions
- xi) Setting of safety and health goals at work place
- xii) Conduction of mock drill surprisingly as well as periodically
- xiii) Employee education through training programmes and workshops on safety and health aspects
- xiv) Regular review of risk assessment
- xv) Compulsory use of safety equipment's by all employees
- xvi) Employees feedback and suggestions on safety and health related aspects
- xvii) Maintenance of statistics of safety and health related issues.

Research Objective

1. To identify the safety and health practices adopted and implemented by various organisations in the interest of both employees and an organisation.

Hypothesis

H0-There is a less significant effect of adoption of safety and health practices on employee's efficiency and productivity.

H1-There is a significant effect of adoption of safety and health practices on employee's efficiency and productivity.

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded ^a	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Table 1. Case Processing Summary

Reliability Statistics

Cronbach's Alpha	N of Items
.866	4

Table 2 – Reliability Statistics

Reliability statistics indicate the value of Cronbach's alpha is .866(86.60%). Value more than 70 or higher is considered reliable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.717 ^a	.514	.504	.59643

a. Predictors: (Constant), BM_S, HRM

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.495	2	18.247	51.297	.000 ^b
	Residual	34.505	97	.356		
	Total	71.000	99			

a. Dependent Variable: CHNG_MNG

b. Predictors: (Constant), BM_S, HRM

Table 3- Model Summary

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.320	.271		4.871	.000
	HRM	.223	.071	.271	3.152	.002
	BM_S	.415	.068	.528	6.148	.000

a. Dependent Variable: CHNG_MNG

Table 4- Coefficients

The tables of regression analysis in indicating *p* value is 0.000. Consequently, if the value of *p* is less than 0.05 i.e. $0.05 > 0.000$ then the relation between dependent and independent is positive.

Hence alternative hypothesis “There is a significant effect of adoption of safety and health practices on employee’s efficiency and productivity” is accepted and null hypothesis is rejected.

H0- There is a no significant effect of implementation of safety and health practices on organisational benefits.

H2- There is a significant effect of implementation of safety and health practices on organisational benefits.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.675	.458		3.657	.000
	TECH	.647	.115	.495	5.644	.000

a. Dependent Variable: HRM

Table 5- Coefficients

The tables of regression analysis indicating *p* value is 0.000. Consequently, if the value of *p* is less than 0.05 i.e. $0.05 > 0.000$, hence There is a significant effect of implementation of safety and health practices on organisational benefits.

Data Collection

Data is collected by use of questionnaire methods. It is related to elimination of work related accidents, preventive measures for avoiding loss which may cause both employees and an organisation due to employees' absence because of accidents or ill health. Analysis of employee’s behaviour and attitude towards health and safety aspects. Honest implementation of safety and health policies to avoid accidents and promote employee’s health. Setting safety and health goals at the workplace etc. These and other such measures need to take care in

order to keep employees trust on management objectives and efforts towards safety and health, which ultimately results in advantages to an organisation in different ways. The organisations have adopted and implemented a set of orange rules as mentioned above.

According to the bureau of labour statistics –

- 1) 5190 people i.e. more than 14 a day died while doing their job.
- 2) Production loss due to work related injuries in 2020-21 = 104,000,000
- 3) Rate of injury due to overexertion = 34%
- 4) Injury due to contacts with objects and equipment's = 25%
- 5) Slips-trips and falls = 25%

Top 5 occupations with the largest number of workplace injuries resulting in days away from work are –

- (1) Service (firefighters and police)
- (2)Transportation and Shipping
- (3) Manufacturing and Production
- (4) Installation, Maintenance and Repair and
- (5) Construction

The Industrial Safety and Health Department is looking to ensure the safety and health of workers by preventing on the job accidents and promoting their health.

Accident Details in the State of Maharashtra

Nature of Accidents	Numbers	All India basis	Percentage
Collapse of Structure	180	1821	10.11
Drowning	4822	29903	06.2
Electrocution	1373	9606	06.9
Explosion	84	1194	14.21
Falls	2938	15399	05.24
Machine Accidents	73	797	10.91
Accidental Fire	3892	19513	05.01
Other Causes	32	4303	13.4
Total	13394	82536	06.16

Table no-6 Accident Details in the State of Maharashtra

Data Analysis

The respondents for this study consisted of 150 companies belonging to one industrial area in Pune city. A detailed questionnaire was prepared to find out what practices have been adopted and implemented by organisations and outcomes out of these practices in terms of advantages. The questionnaire itself was covered with the dependent and independent variables, respondent's qualification, gender, corporate experience, type and nature of an organisation he/she is working. This was designed to elicit responses from respondents on familiarity dimensions and to find out the extent to which this effects on organisations benefits.

Findings

1) An organisations have strictly adopted and implementing following safety and health practices

(i) existence of safety and health committee, (ii) safety and health issues are discussed continuously ,(iii) safety and health committee possess equal number of members on behalf of employers and employees.(iv) safety and health meetings are chaired by higher authorities (v) safety and health audit is conducted periodically (vi) To bring more awareness amongst employees mock drills are organised periodically (vii) Necessary safety equipment's are makes available for use of employees (viii)Statistics of employees absenteeism due to dangerous occurrences is being maintained (ix) Training programmes on safety are conducted regularly (x) Statistics of Incidences of dangerous occurrences , work related injuries & of near miss is being maintained

2) Few organisations, though adopting and implementing safety and health practices, are not getting the expected response from employees on following safety and health issues.

i) Employees initiative (ii)Initiatives towards safety and health promotions by an organisation (iii) Setting goals & even specific goals on S&H by an organisations (iv)Employees medical examination (v) Well established occupational health centre (vi) Appointment of trained male/female nurse (vii) Education to employees on safety and health issues (viii) Review of risk assessment (ix) Trust of employees towards management activities

(x) Setting or realistic goals (xi) Wellness programs for employees (xii) Belief in management on safety and health related policies (xiii) Employees confidence towards emergency tackling's (xiv) Obeying of safety and health rules by employees (xv) Understanding importance of suggestion scheme (xvi) Correcting faulty procedures and practices.

3) Few organisations Implementing following safety and health programmes

i) Nutrition physical activities and health Promotion (ii) Organisation belongingness (iii) concern about organisation (iv) Continuity with organisation, (v) Cooperation by employees and supervisors

4) Following safety and health practices needs to concentrate

i) Rewards and incentives (ii) Employees feedback and their appreciation (iii) safety and health plan for employees year by year (iv) supervisors competency at work place (v) Acceptance to suggestions given by employees (vi) Training programmes on hearing conservations ,(vii) Training programmes on ergonomics, fatigue management radiation and laser protection, statistics of occupational diseases (viii) Accepting duties and responsibilities towards safety and health and protection of reputation or image of an organisation.

5) Following safety and health issues had not been considered by many companies

i) Vaccination programmes for employees and (ii) work-life balance programme for employees.

Suggestions

Organisational professionals have for several years been concerned with safety and health related issues and elimination of accidents and ill health or occupational diseases at workplace so that it will have positive impact on employees and organisations will get benefitted by way of avoiding loss of production due to employee illness. Analysis shows that there is a general lack of knowledge amongst employees about importance of safety and health, their attitude and behaviour towards safety and health aspects has not enriched satisfactorily. On the contrary management is making every efforts to eliminate accidents and to promote the health aspects at work place by adopting and implementing various safety and health related practices and thus ensuring for safe and healthy working environment. Occupational diseases and injuries are tremendously reduced because of taking preventive measures and adoption of safety and health practices.

The study examines various safety and health practices adopted by different organisations and in what way the employees as well as organisations got an advantage. Based on analysis the result is as below-

- 1) An organisation can address its safety and health obligations.
- 2) An organisation can work with ethics by following safety and health principles
- 3) An organisation can demonstrate functions and responsibilities of everyone.
- 4) An organisation can grow due to effective working by employees.
- 5) An organisation can define acceptable and unacceptable behaviour.
- 6) Safety & health matters can be handled faster by way of procedures in place
- 7) It supports strengthening Industrial relations.
- 8) An organisation can save costs which have to be paid against compensation.
- 9) It helps to increase productivity by avoiding loss time due to injury.

All the above advantages work towards improvement of safety & health culture. An organisation can put an example before employees that it has a concern of its employees and their welfare. An organisation can improve the workplace, working conditions relating to health and safety, certainly the employees will get satisfied and help improve productivity, as any organisation runs and progresses on the principle of "give and take".

Conclusion

- 1) The stakeholders, including the government employer and employees, must adopt a systematic method for identification and evaluation of the risk involved by gathering comprehensive data, putting the risk analysis into practice, and then conducting routine monitoring.
- 2) Employers are required to maintain leadership for adoption of good practices implemented by other organisations and vice versa.
- 3) To integrate safety policy into the quality management system and include occupational safety and health into institutional objectives.
- 4) Employees shall participate and involve meaningfully and shall implement and adopt OHSAS guidelines which is a fundamental requirement to make it effective and acceptable.
- 5) A strong and honest will of the decision makers as well as the legislation implementers and employers are required to provide leadership for promotional activities to strengthen the safety and health area by possibly

eliminating accidents and health issues which may arise at work place may be due to the nature of production activities, handling of raw material used, process that has to followed, and others.

6) Every organisation, government and non-government bodies, professionals who are working in safety and health areas shall be given priority to research and development along with training and awareness programmes for finding out new ideas, ways to assure employees are absolutely safe at their work place.

7) Occupational and allied risk involved, ergonomic factors, job stress, traditional accidents, injuries and health related issues shall be looked as once moral responsibility and shall be given high attention

8) Pledge- to be a safe at work

9) Measures safety progress periodically

10) Engage employees and create a safe culture

11) Together we can eliminate preventable deaths in the workplace

12) Each member of an organisation shall remember that "Safety and health care is not the responsibility of any one person but, it is the responsibility of everyone"

References:

Elis L. (1975) review on research on efforts to promote occupational safety, *Journal of safety research*, vol 48, page 7-17.

Peter H and Zwetsloot Gerard I (2011) "Occupational health and safety management systems: issues and challenges," *Safety Science* 49(7):961–963)

Joykutty L. (2017)"A Study on the Effectiveness of Safety and Health Programs on the Workforce of Various Manufacturing Sectors, Bangalore," published in the *Global Journal of Management and Business Studies*, ISSN: 2248-9878, vol. 7, no. 1 pp. 1–13,

Frick K. and Jensen P. (2000), "Systematic Occupational Health and Safety Management," *Perspectives on International development*; ISBN: 9780080434131

Mearns K. (2008)., "Organisational support and safety outcomes: An uninvestigated relationship," *Elsevier, Safety Science*, vol. 46, Issue 3, Pages 388–397.

Manuel, F.A.(2003). *The Practice of Safety*. Third Edition. a John Wiley & Sons, Inc. publication.

Nichols T. and Walter D. (2007) , "Worker Representation and Workplace Health and Safety". *School of Social Sciences, Cardiff University, Wales, UK*. page14.

Nielsen, Kent J (2014)"Improving safety culture through the health and safety organization: A case study," *Open Access, , Elsevier*.

Pingle S. (2012). Occupational safety and health in India: now and the future. DOI: 10.2486/in health.ms1366. *Industrial Health*, 50(3), pp. 167-171,

Quilan M and Withagen T (2000). "Systematic Occupational Health and Safety Management," *Perspectives on International development*; ISBN: 9780080434131

Robert J. (2017). *Transforming your safety culture with lean safety management* Independent Publishing Create Space

Robson (2007) approaches to managing Health safety and well-being Apr (2018) DOI: 10.1007/978-94-024-1261-12 in book: *Managing health, safety and wellbeing* (pp.33-65)

Walters, D.(2008), "Workplace Health and Safety *School of Social Sciences, Cardiff University, Wales, UK*.