

PERCEPTION ON ELEMENTS OF OCCUPATIONAL SAFETY MANAGEMENT, A CASE STUDY.

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Abstract

Purpose: Occupational Safety (OS) practices are the strategies, policies, activities, and procedures that can be implemented by the organization targeting the safety and wellbeing of their employees. The purpose of the study is to understand the perceptions of employees on occupational safety practices (safety communication, management commitment, safety support to a coworker at the workplace, accident reporting, safety self-efficacy and safety hazard awareness) in the selected manufacturing industry in Bagmati province of Nepal.

Design/Methodology/Approach: The research is descriptive to analyze the present prospects of global OS practices in the manufacturing sector in Nepal. Literature-based review-dominated conceptual analysis is exploratory in nature. The questionnaire was pretested by discussion and oral interviews to address the unanticipated problems while understating the technical terms, and it has been designed to promote participation from all levels of employment. Primary data are collected through the questionnaire method along with interview of the safety coordinator. Data collected from Nepal Distilleries Private Limited employees through questionnaire used for the study. The study used non-probability sampling. Under this, we used convenience sampling, which took 65 out of 147 employees. Data analysis has been done with the help of SPSS 16.0.

Findings/Result: The primary conclusion of this study is that Safety Efficacy, Safety Hazard Awareness, Safety Communication, Management Commitment, Safety Support of coworkers at the workplace and Accident Reporting have a positive and significant effect on OS practices in Nepal Distillery Private Limited. The study concludes that accident reporting, followed by safety communication and safety self-efficacy, is the primary determinant of OS practice in the manufacturing sector of Nepal.

Originality/Value: Both relevant and practical aspects for future occupational safety in the form of occupational safety and practices in the manufacturing sector have been recognized within a broader context to create an appeal and awareness on an academic platform and management of manufacturing organizations and government for safe practices and policies making for Nepalese manufacturing sector.

Paper Type: Research paper

Keywords: Safety self-efficacy, Safety hazard awareness, safety communication, management commitment, safety support of coworker at workplace, accident reporting, occupational safety practices

1. Introduction

1.1 General Background

Occupational Safety (OS) is the science of the anticipation, recognition, evaluation and control of risks or hazards arising in or from the workplace that may affect the health and well-being of workers (Alli, 2008). The ILO and WHO stated that OSH is protecting and maintaining the highest level of physical, mental, and social well-being of workers in all occupations. The statistic of ILO shows that 22 Lacs people die every year due to different workplace accidents and diseases and another 27 Crores suffer on different workplace injuries every year globally. Occupational Safety refers to proactive provisions at the workplace for the safety of the worker. WHO defined "occupational health and safety deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards". Health is not only the absence of fragility or diseases but also mental, physical fitness and social well-being. Occupational accidents and work-related diseases remain a relatively uncovered domain in global literature (Arnold, S M. et al. 2019).

The national safety council was the first forum to control workplace hazards and risks; it was formed in 1912. Other institutions like the International Labor Organization (ILO) and World Health Organization (WHO) were created later to regulate and monitor issues, including workplace safety. As per the Labor act, Nepal (2017) has given explicit instruction in chapter 12 of the said act on the requirements to be maintained by the employer on Occupational Health and safety standards. The law insists on providing the necessary information and training to the labors on the operation of chemicals and equipment. The employer shall implement the systems to eliminate the harmful effect on health and safety. The act has clearly defined manufacturers' duties and responsibilities, including equipment and materials selection criteria and the need to prepare an operation manual. The burden of labor is also mentioned in the act, which includes avoiding intentional acts that can have health and safety hazards. The law also says the special provisions while engaging the work, which needs the protection of eyes, chemical substances, operation of pressure plants, machine safety guards, load lifting, and other necessary provisions.

In the context of Nepal, Budhathoki, S, S. (2014a) have found that the working condition of workers in Nepal industries could be better. According to Poudel et al. (2005), "Lack of

Occupational research in Nepal", only 0.7% of the article published between 1966 to 2004 is relevant to occupational health in Nepal, and the study suggests further research in the Occupational health and safety sector with collaboration with other disciplines like labour unions and community organizations who share the same objective. Acharya, S.R. (2014) asserted that many incidents are reported across Nepal's manufacturing industries related to workplace safety. In Nepal, few scientific studies have been carried out on Occupational Safety practices. As per the latest report from International Labor Organization (ILO, 2021), only 17% of the population of the country benefitted from at least one social security coverage (excluding health), and ILO emphasizing adaptation of such social security programs to cover all type of employment for the benefit of workers. So far Nepal has ratified 11 conventions of ILO and the last one ratified on 14 sept 2007.

1.2 Selection of Manufacturing Industry for the Study

The Nepal Distilleries Pvt. Ltd (NDPL) has been selected for the case study. NDPL is a reputed manufacturing industry falls at large industry category and producing alcoholic beverages. This distillery is the first distillery of Nepal, which established on 1959 AD, and market leader in their operating segment for domestic as well as export from Nepal.

Hazard and Risk at Distillery: Fire hazards in the distillery can be considered as most important due to the handling of inflammable liquid. NDPL is equipped with the Mitigation plan after installing a Fire extinguisher covering the area, Fire alarm and Fire hydrant systems. Apart from fire, below is the possible occupational safety risks associated with the distillery.

Fall from Height, Glass breakage, Slip, trip and fall, Unguarded machine rotation parts, Confined space, High noise level, Hot surface, Chemical Handling, Electrical shock and burns, Ergonomic issues due to manual work.

1.3 Statement of the Problem

The workplace's safety is an essential and significant component of efficiency and health. More so, in the industries related to manufacturing, there are diverse areas where improvements can be made in OSP. Joshi et al. (2011) found that Nepal's overall occupational safety and health status is unsatisfactory. The studies recommended more studies in the sector of Nepal- Occupational Health and Safety. Farhan and M. (2022) found that work environment affects occupational safety & health, work discipline affects occupational health & safety, and occupational safety affects occupational. Muniz et al. (2007) revealed that an effective OHS system requires commitment from all levels of the organization.

OHS is a system designed to create a Healthy and safe occupation. OHS implementation needs to be a top priority for the organization, as it affects the safety and health of its employees. The reason is not only the lack of funding but also globalization and industrialization, which significantly impact the development of OSH hazards. The area of OSH has widened from workplace to national level and now at Global attention. There are numerous factors causing safety hazards in the workplace (Yessuf *et al.*, 2014). Joshi S, K. (2011) Summing up his study with the limited literature available on the topic of Nepal OHS and recommending more studies to improve the OHS status of the country. Many past studies have mentioned the lack of attention in the field of

Occupational Health, and minimal research has been witnessed in Nepal. The study focuses on the effective management of the OSH system in the manufacturing industries of Nepal by identifying drivers and gaps in the current practices that significantly impact workplace safety intervention and exploring their relevance in different contexts and situations.

This study deals with the following issue in factors affecting occupational safety (OS) practices in the selected manufacturing industry, which is situated in the Bagmati province of Nepal.

Perception of employees on the level of occupational safety practices (safety communication, management commitment, safety support to a coworker at the workplace, accident reporting, safety self-efficacy and safety hazard awareness) at their workplace.

1.4 Objectives:

The aim is to understand the perceptions of employees on occupational safety practices (safety communication, management commitment, safety support to a coworker at the workplace, accident reporting, safety self-efficacy and safety hazard awareness) in the selected manufacturing industry of Nepal.

1.5 Scope of the Study

The scope of the proposed study is to conduct at the selected manufacturing industry situated at Bagmati province of Nepal in the large industry segment. The country's Manufacturing Industries are the backbone of the GDP and economy. As per the statistics released by the Department of Industry in 2020-21, for the Nepali financial year 2077-78, 3132 manufacturing industries are registered in the country, equivalent to 37.4% of the total industry registration. Manufacturing Industries provide vast employment opportunities as well. 332115 employment opportunities are offered by the manufacturing industries, which is 53.17% of the entire industry-generated job of 624661. Considering the domination of manufacturing industries in the job segment, occupational safety is one of the significant areas where attention is to be brought.

The study in the selected manufacturing industry is to understand the perceptions of employees on elements of occupational safety (OS) practices (i.e. safety communication, management commitment, safety support to a coworker at the workplace, accident reporting, safety self-efficacy and safety hazard awareness). This study can help the industry to improve its OS practice and to build an effective strategy for its implementation, the industrial fraternity to standardize the system, and it can also help lawmakers of the industries departments to formulate the policy.

1.6 Literature Review

Hoffman. D et al. (2003) stated that "Climate as a moderator of the relationship between leader-member exchange and content specific citizenship: Safety climate as an example" that behavior of the employees has a vital role in workplace accidents. Their study revealed various causes of the accidents, and people who were engaged in risky conduct were expected to get more injured than others. Perception of the employee thinking the work environment is safe also matters, as it builds positive attitudes towards their employment.

Zubar A et al. (2014) stated that OHS Management in manufacturing industries in south India, most of the manufacturing industries need more in the OHS system and adherence to the system was found to be between 52.5% to 69.56%. It is clear from the study that immediate intervention is required in the sector to improve the OHS standards.

Almeida et al. (2014) inquired about the CIFs (Critical Implementation Factors) while incorporating the integrated management system (IMS). They spotted the obstacles and problems that the organizations face while incorporating multiple management subsystems and the outcoming benefits. The case study based on the semi-structured interviews was used for this study with the managers who were involved in the management systems. The study showed that implementing or integrating the management subsystems was very important for the organizations that planned to do so.

Occupational safety directly impacts the company's increment of expenses, saving increment, the reputation of the company or increased goodwill of the company to make employees loyal towards the organization and enhance the company's productivity. Mishra and Aithal (2021) stated that the operation of any project depends on the safety systems implementation status. Mishra et al. (2022) claimed that site safety directly impacts project performance.

Srekl J (2020) revealed that traditional safety analysis methods would only help to find out the root causes of all accidents. This study also suggests that new technology and techniques are brought into manufacturing, which is revolving daily. Being a developing country, Nepal has witnessed lesser attention and studies in Occupational Safety practices. Budhathoki, S.S. et al. (2014b) has done a research study in eastern Nepal to understand the welding industry's safety measures. The study found that only the welders who were aware of the hazards (47%) used PPE (90%) and the gap was 43%. Marahatta SB et al. (2018) found that only 44.3% of automobile taticians were using necessary PPEs while executing their job, and 56% were aware of the occupational hazards they were doing. The study indicated that awareness training and safety promotion activities are mandatory to improve occupational safety standards. A literature review is being continued, and further learning from past studies will be taken care of during this proposed research.

1.8 Methodology:

A detailed Questionnaire was developed and carried out for the survey to justify the intent of the element. This questionnaire was pretested by discussion and oral interviews to address the unanticipated problems while understating the technical terms, and it has been designed to promote participation from all levels of employment. Primary data are collected through the questionnaire method. Google form and physical questionnaire were used to collect the data and questionnaire were converted to local language for the better understanding for the workmen.

Data analysis has been done with the help of SSPS 16.0. Frequency, percentages, cross-tabulations, and multiple responses were used as part of the descriptive analysis to describe and interpret the data. The data collection instrument has divided into two parts. Demographic details consist in Part of 1 and part 2, having 30 items that measured the existing practices of the employees from

Nepal Distilleries Private Limited (NDPL) on occupational safety (OS) using a 5-point Likert scale. In this method, the respondents' responses were recorded, the strongly agreed responses were kept at 1, and the strongly disagreed responses were kept at 5. The total number of respondents is 65 out of 147.

1.9 Operational Definition

1. Safety Hazard Awareness:

Awareness of occupational hazards and practice of safety measures among respondents were generally low, with most of the respondents unaware of risks associated with their work and not using safety devices (Osinubi et al., 2017). Christian, M. S (2009) states that safety awareness is closely associated with safety behavior in any industry. Awareness on risks and hazardous are important factor to mitigate the consequence, which can end up an unpleasant situation later.

2. Management commitment

Organizational commitment to occupational safety expresses to what extent top management of an organization prioritizes occupational safety during the decision-making process and how much resource is allocated for it. Notably, the importance attached by an organization to the issue of security is represented by three essential elements (safety values, safety principles and other safety measures (equipment, staff time)), although they do not require any regulation (Wiegmann & von Thanden, 2007). A company's management is responsible for most of the organization's safety issues because they control the available resources (Othman, 2012). Management is responsible for complying necessary workplace safety regulations mandated by the labour and industry departments under the Government. Any adverse event in safety can hammer not only productivity but also reputation of the organization.

3. Safety Communication

The various research studies found different ways organizations try to minimize the number of injuries that occur in the workplace, such as compulsory safety training and regular employee safety compliance appraisals. Homann and Stetzer (1998) found that the critical aspect of reducing injuries at the workplace can be safety policies and procedures and communication. Hofmann and Morgeson (1999) found that the freedom employees felt in communicating about safety issues with their supervisors, called upward safety communication, was associated with adverse safety events. Organizations must ensure that management is concerned about employee safety so that employees feel encouraged to relay the safety issues to their supervisors. (Kath et al., 2010).

4. Safety Support to Co-worker at Workplace

Support for the safety of co-workers has been prioritized in production and transport for its positive effect on the protection of each worker; however, little evidence is still there to demonstrate whether such a supportive role for co-workers is significant in improving project-level safety in construction sites (Ji et al., 2019).

5. Safety Self-Efficacy

Safety self-efficacy means the degree of confidence in an individual's ability to successfully perform basic safety-related activities, such as expressing safety concerns or giving workplace instructions, to perform the job safely. Bandura (1997) stated that perceptions of self-efficacy influence an individual's interest to engage in a specific behavior. Barling et al. (2002) found it is qualitatively dissimilar from the other related concepts, for example, safety consciousness.

6. Accident Reporting

Accident reporting is a crucial aspect of measuring or monitoring safety performance at the workplace. The reports on the accident in the chemical industry lay out important and multiple information that helps develop the lessons learned for improving the safety and operational efficiency in such industries (Fyffe et al., 2015).

7. Occupational Safety Practices (OSP)

Occupational safety is extensively practiced in the present world and widely accepted. OSH is a vast area related to the personnel's health, welfare, and safety, which aims for their stability, security, and a motivational workplace atmosphere (Friend & Kohn, 2018). The study by Lund & Marriott, 2011, and Jilcha & Kitaw, 2016, showed that most employees had forsaken their safety and health. Also, Cudjoe, S. F. (2011) showed that most employees suffered injuries and multiple health challenges due to workplace hazards due to a lack of appropriate measures for health and safety.

2.Data analysis and significant findings

2.1 Data presentation and analysis

This study, derived from the primary data analysis, deals with the employee's perception of the Distillery OS systems components. The result derived through the questionnaire survey carried out among different employees of the Distillery is dealt with in this section. A set of questionnaires, including Likert scale questions, is available. Based on the aim of this study, a total of 65 respondents were interviewed and analyzed. The following section presents the profile of the respondents, their characteristics, and the survey's outcome. A sample of 44.2% of the total population participated in the survey.

Level of Employment	Total Employees	Survey participation	Sample %
Top Management	7	2	28.6%
Middle Management	46	14	30.4%
Lower Management	45	15	33.3%
Worker	49	34	69.4%
Total	147	65	44.2%

Table 2.1: sample details

2.2 Demographic Characteristics

This section of the analysis deals with the composition of the total number of respondents. The table below illustrates the personal characteristics of respondents' profiles based on different factors such as gender, Age, academic qualification, Level of Employment, and service period. Demographic characteristics play a significant role in understanding the perception towards OS practices. Therefore, the present section illustrates the demographic characteristics of the respondents of NDPL.

Table (2.2) Profile of Respondents

Particulars		No. of Respondents	Percent
Total		65	100
Gender	Male	58	89
	Female	7	11
Age	18-25	3	4
	26-32	20	31
	33-37	18	28
	38-44	11	17
	44 & above	13	20
Education	Literate	25	38
	Metric	11	17
	Intermediate	5	8
	Undergraduate	11	17
	postgraduate	13	20
Level of Management	Top management	2	3
	Middle management	14	22
	Lower management	15	23
	Worker	34	52
Work Experience	less than 10 years	23	35
	10-20 years	30	46
	20 & above e years	12	19

Table 2.2: Demographics details.

2.3 Employees Perception on Safety self-Efficacy, Safety Hazard Awareness, Safety Communication, Safety Support of coworker at workplace and Accident Reporting

Table 2.3.1: Safety Self-Efficacy

Statements		1	2	3	4	5	N	Mean
I'm aware of hazards in my workplace	F	41	14	7	3	0	65	1.57
	%	63.1	21.5	10.8	4.6	0	100	
	A%	84.6		10.8	4.6			
I will always eliminate hazards in my workplace	F	38	20	6	1	0	65	1.54
	%	58.5	30.8	9.2	1.5	0	100	
	A%	89.3		9.2	1.5			
I believe, I am competent enough for identifying safety and health hazards	F	37	19	7	2	0	65	1.6
	%	56.9	29.2	10.8	3.1	0	100	
	A%	86.1		10.8	3.1			
I Know, how to perform my jobs in safe manner	F	38	25	2	0	0	65	1.45
	%	58.5	38.5	3	0	0	100	
	A%	97		3	0			
I never deviate safety procedures to complete job on time	F	38	22	4	1	0	65	1.51
	%	58.5	33.8	6.2	1.5	0	100	
	A%	92.09		6.2	1.5			
Weighted average mean							1.534	

Most respondents agreed that they are aware of the hazards in their workplace (84.6%), whereas some disagreed with the statement (4.6%). However, those who remained (10.8%) were indifferent to the report.

In addition, the respondents viewed that they will permanently eliminate hazards at the workplace took the majority (89.3%). However, others disagree (1.5%), and those who remained (9.2%) are indifferent to the statement.

Also, most respondents believed they were competent enough to identify safety and health hazards (86.1%). However, few disagree (3.1%), and those who remained (10.8%) are indifferent to the statement.

Likewise, on the statement on how to perform their jobs safely, most respondents agreed that they complete their job safely (97.0%). None of the respondents disagreed with the statement, and those who remained (3.0%) were indifferent to the report.

Most respondents believed they always followed safety procedures to complete the job on time (92.09%). However, some respondents disagreed with the statement (1.5%). The respondents who remained (6.2%) were indifferent towards the idea.

The mean value of Safety self-Efficacy in terms of occupational safety practices in the manufacturing sector ranges from a minimum value of 1.45 to a maximum weight of 1.6. The weighted average mean scale for Safety self-Efficacy is 1.53, which indicates that OS practices are affected by Safety self-Efficacy. This also implies that the result shows that Safety self-Efficacy leads to OS practices. The five item's alpha coefficient is 0.921, indicating relatively high internal consistency of the items. This finding also consisted of (similar) to the result of (Bandura, 1997; Barling et al., 2002).

Table 2.3.2 Safety Hazard Awareness

Statements		1	2	3	4	5	N	Mean
I am aware of necessary personal protective equipment (PPE) in my workplace	F	37	20	7	1	0	65	1.46
	%	56.9	30.8	10.8	1.5	0.00	100.00	
	A%	87.7		10.8	1.5			
I know what to do in case of emergencies	F	37	20	7	1	0	65	1.57
	%	56.9	30.8	10.8	1.5	0.00	100.00	
	A%	87.7		10.8	1.5			
I know whom to report in case of health and safety problems	F	39	21	5	0	0	65	1.48
	%	60	32.3	7.7	0	0	100.00	
	A%	92.3		7.7	0			
I know that my work area should keep always clean and tidy	F	41	20	4	0	0	65	1.43
	%	63.1	30.8	6.2	0	0.00	100.00	
	A%	93.9		6.1	0			
I am trained to operate firefighting equipment	F	39	15	7	4	0	65	1.63
	%	60	23.1	10.8	6.2	0	100.00	
	A%	83.1		10.8	6.2			
weighted average mean							1.514	

The majority of respondents concluded that they are aware of necessary personal protective equipment (PPE) in their workplace (87.7%), whereas some respondents disagreed with the statement (1.5%). However, those who remained (10.8%) were indifferent to the statement.

Also, most of the respondents believed they knew what to do in emergencies (87.7%). However, others disagreed (1.5%), and the remaining respondents (9.2%) were indifferent to the statement.

Likewise, the respondents who believed they knew whom to report in case of health and safety problems came out the most (92.3%). However, none of the respondents disagreed (0.0%) with the statement, whereas the respondents (7.7%) were indifferent. Similarly, most respondents believed that their work area should always be clean and tidy (93.9%). However, no respondents disagreed with the statement (0.0 %). The rest of the respondents (6.1%) are indifferent to the statement.

The statement, "I am trained to operate firefighting equipment", most respondents agreed (83.1%). At the same time, some respondents disagreed with the statement (6.2%). However, the rest of the respondents are (10.8.0%) indifferent to the statement.

The affective component's mean value in occupational safety ranges from a minimum of 1.43 to a maximum of 1.63 in the manufacturing sector. The weighted average mean scale for Safety Hazard awareness is 1.514, which indicates that OS practices are affected by Safety Hazard awareness. This result also implies that Safety Hazard awareness leads to OS practices. The five item's alpha coefficient is 0.906, indicating relatively high internal consistency of the items. This finding is consistent with the finding of (Christian M. S, 2009).

Table 2.3.3 Safety Communication

Statements		1	2	3	4	5	N	Mean
I always participate in OSH events	F	29	19	14	3	0	65	1.86
	%	44.6	29.2	21.5	4.6	0.00	100.00	
	A%	73.8		21.5	4.6			
There is regular communication between employee and management about safety	F	33	24	5	3	0	65	1.66
	%	50.8	36.9	7.7	4.6	0.00	100.00	
	A%	87.7		7.7	4.6			
There is safety communication board available near my workplace	F	34	20	7	4	0	65	1.71
	%	52.3	30.8	10.8	6.2	0	100.00	
	A%	83.1		10.8	6.2			
Safety signage's are being used at my workplace	F	33	20	7	5	0	65	1.75
	%	50.8	30.8	10.8	7.7	0.00	100.00	

	A%	81.6		10.8	7.7			
Visitors are given clear instruction before entering our work premises	F	33	16	11	5	0	65	1.82
	%	50.8	24.6	16.9	7.7		100.00	
	A%	75.4		16.9	7.7			
Weighted average mean							1.76	

Many respondents (73.8%) agreed with the statement "I always participate in OSH events", whereas some respondents disagreed with the statement (4.6%). However, those who remained (21.5%) were indifferent to the statement.

Also, most respondents (87.7%) believed that there is regular communication between employees and the management about safety. However, others disagreed (4.6%), and those who remained (7.7%) were indifferent to the statement.

The data in the above table shows that the respondents who agreed that a safety communication board is available near their workplace were the majority (83.1%). However, some respondents disagreed (6.2%), and those who remained (10.8%) were indifferent to the statement.

Most respondents agreed with the statement, "Safety signages are being used at my workplace" (81.6%). However, 7.7% of respondents disagreed with the statement, and those who remained (10.8%), were indifferent to the statement.

Likewise, the statement, "Visitors are given clear instructions before entering our work premises," was agreed upon by most respondents (75.4%). However, 7.7% of respondents disagreed with the statement, and those who remained (16.9%) were indifferent to the statement.

The affective component's mean value in occupational safety practices ranges from a minimum of 1.66 to a maximum of 1.86 in the manufacturing sector.

The weighted averages mean scale for "Safety Communication "is 1.76, which shows the practices are affected by safety communication. This result also implies that Safety communication leads to OS practice. The five item's alpha coefficient is 0.909, indicating relatively high internal consistency of the items. This finding is consistent with (Homann & Stetzer,1998; Hofmann & Morgeson,1999; Kath et al., 2010).

Table 2.3.4 Management Commitment

Statements		1	2	3	4	5	N	Mean
Management support visible for safety of worker	F	40	23	1	1	0	65	1.43
	%	61.5	35.4	1.5	1.5	0	100.00	

	A%	96.9		1.5	1.5			
My supervisor always considers for improving workplace safety	F	43	21	1	0	0	65	1.35
	%	66.2	32.3	1.5	0	0	100.00	
	A%	98.5		1.5	0			
My supervisor or manager always speaks with worker about safety	F	42	20	3	0	0	65	1.38
	%	64.6	30.8	4.6	0	0	100.00	
	A%	95.4		4.6	0			
There is participation from worker also in plant safety committee	F	42	20	3	0	0	65	1.40
	%	64.6	30.8	4.6	0	0	100.00	
	A%	90.8		4.6	4.6			
My company frequently conduct safety reward/quiz program	F	36	23	3	3	0	65	1.58
	%	55.4	35.8	4.6	4.6	0	100.00	
	A%	78.29		17.05	4.65			
Weighted average mean							1.428	

Many respondents (98.5%) agreed that Management support is visible for the safety of the worker, whereas none disagreed (0.0%) with the statement. However, the respondents (1.5%) remained indifferent to the statement.

Likewise, most respondents (89.3%) believed that their supervisor always considered improving workplace safety. However, others disagreed (1.5%), and the remaining respondents (9.2%) were indifferent to the statement.

The above table indicates that most of the respondent (95.4%) believed that their supervisor or manager always spoke with the worker about safety, and no respondents disagreed with that statement, whereas those who remained (4.6%) were indifferent to the statement.

The majority of respondents (90.8%) agreed with the statement “There is participation from workers also in plant safety committee”, while 4.6% of respondents disagreed, and the rest (4.6%) were indifferent to the statement.

Similarly, most respondents believed that their company frequently conducted a safety reward/quiz program (78.29%). However, some respondents disagreed (4.65%), and those who remained (9.2%) were indifferent to the statement.

The affective component's mean value in occupational safety practices ranges from a minimum of 1.35 to a maximum of 1.58 in manufacturing sectors. The weighted average mean scale for Management Commitment is 1.428, which indicates that OS practices are affected by management commitment. The result also implies that management commitment leads to OS practice. The five item's alpha coefficient is 0.923, indicating relatively high internal consistency of the items. This finding consists of the finding of (Wiegmann & von Thanden, 2007; Shekh, 2015; Hussain, 2009; Othman, 2012).

Table 2.3.5 Safety Support of Coworker at Workplace

Statements		1	2	3	4	5	N	Mean
My coworker always supports for following safety procedures	F	36	23	5	1	0	65	1.55
	%	55.4	35.4	7.7	1.5	0.00	100.00	
	A%	90.8		7.7	1.5			
I alert my colleagues if he deviates any safety norms	F	36	20	7	0	0	65	1.52
	%	58.5	30.8	10.8	0.00	0	100.00	
	A%	89.3		10.8	0			
	F	35	26	4	0	0	65	1.52
	%	53.8	40.0	6.2	0	0.00	100.00	
I inform to my supervisor if my colleagues do not follow safety procedures	A%	93.8		6.2	0			
My coworker listens to me whenever I talk about work related problems	F	30	23	11	1	0	65	1.74
	%	46.2	35.4	16.9	1.5	0.00	100.00	
	A%	81.6		16.9	1.5			
My coworker corrects if I ignore safety rules at workplace	F	36	19	7	2	1	65	1.66
	%	55.4	29.2	10.8	3.1	1.5	100.00	
	A%	84.6		10.8	4.6			
Weighted average mean							1.598	

Most of the respondents (90.8%) agreed that their coworker always supported for following safety policies while, 1.5% disagreed to the statement and those who remained (7.7%), were indifferent to the statement.

Likewise, majority of the respondents (89.3%) believed the statement “I alert my colleagues if he deviates any safety norms ”while none of the respondents disagreed the statement while, those who remained (10.8%), were indifferent to the statement.

The statement “I inform to my supervisor if my colleagues do not follow safety procedures” mentioned in above table were agreed by the majority respondents (93.8%) while, no respondents disagreed that statement. However, those who remained (6.2%), were indifferent to the statement.

Regarding the responses on the statement, “My coworker listens to me whenever I talk about work

Statements		1	2	3	4	5	N	Mean
I have seen minor accidents	F	38	22	4	1	0	65	1.51
	%	58.5	33.8	6.2	1.5	0	100.00	
	A%	92.3		3.10	1.5			
I have seen major accidents	F	15	23	9	9	9	65	2.6
	%	23.1	35.4	13.8	13.8	13.8	100.00	
	A%	58.5		13.8	27.6			
Accident investigation is being done for every incident reported	F	34	18	9	4	0	65	1.74
	%	52.3	27.7	13.8	6.2	0	100.00	
	A%	80		13.8	6.2			
I am part of incident investigation	F	13	25	12	6	9	65	2.58
	%	20	38.5	18.5	9.2	13.8	100.00	
	A%	80.62		13.95	5.43			
Accident reporting is done for every incident reported	F	30	22	10	3	0	65	1.78
	%	46.2	33.8	15.4	4.6	0	100.00	
	A%	80		15.4	4.6			
Weighted average mean							2.042	

related problems” majority of respondents agreed that statement (81.6%) and some (1.5%) disagreed and those who remained (16.9%) are indifferent to the statement.

Similarly, those who believed that their coworker corrected if they ignored safety rules at workplace took the majority (84.6 %). However, some respondents disagreed with the statement (4.6%). While those who remained (10.8%) were indifferent to the statement.

The mean value of the Safety Support of Coworker at workplace in terms of occupational safety practices in manufacturing sector ranges from a minimum value of 1.52 to the maximum value of 1.74. Weighted average mean scale for Safety Support of Coworker at workplace is 1.598, which indicates that OS practices affected by safety support of coworker at workplace. In other words, the result indicates that safety support of coworker at workplace leads to OS practice. The five item's alpha coefficient is 0.902, indicating relatively high internal consistency of the items. This finding is consisted with finding of (Ji et al., 2019).

Table 2.3.6 Accident Reporting

Most of the respondents (92.3%) agreed with the statement "I have seen minor accidents", whereas a few respondents (1.5%) disagreed with the statement, and those who remained (3.10%), were indifferent to the statement.

Likewise, many respondents (58.5%) agreed that they had seen significant accidents, while others (27.6%) disagreed, and the remaining (13.8%) were indifferent to the statement.

The statement "Accident investigation is being done for every incident reported" mentioned in the above table was agreed by many respondents (80.0%), while 6.2% disagreed, and those who remained (13.8%) were indifferent to the statement.

Regarding the responses to the statement, "I am part of the incident investigation", most respondents agreed with that statement (80.62%), and 5.43 %disagreed. The rest (13.95%) were indifferent to the statement.

Similarly, those who believed that accident reporting took the majority (80.0%). However, some respondents (4.6%) disagreed with the statement, and the rest (15.4 %) were indifferent to the statement.

The mean value of Accident Reporting in terms of occupational safety practices in the manufacturing sector ranges from a minimum value of 1.51 to a maximum value of 2.6. The weighted average mean scale for Accident Reporting is 2.042, which indicates that OS practices are affected by accident reporting. The result also implies that accident reporting leads to OS practice. The five item's alpha coefficient is 0.926, indicating relatively high internal consistency of the items. This finding is consistent with the finding of (Fyffe et al., 2015).

2.4 Reliability of the Study

The thirty-item alpha coefficient is 0.96, indicating relatively high internal consistency of the items. (Note: - In most research situations like social science, the reliability coefficient of 0.7 or higher is considered "Acceptable")

3.Summary and Conclusion

3.1 Summary

Occupational Safety practices incorporate the employers, workers, organizations and architects and designers' activities, programs, and measures to protect their employees' health and promote their safety. In today's world, most organizations have adopted numerous measures for improving and maintaining employees' health and safety at the workplace. The nature of work performance systems and organizational work practices, along with the leadership and organizational resilience

in seeking ongoing employee health and safety improvement, determines the effectiveness of health and safety management at the workplace (Armstrong, 2006).

OSH practices are the strategies, policies, activities and procedures that can be implemented by the organization, targeting their employee's safety (Vinod Kumar., 2010). Various safety-related components are incorporated into the OHSP. Every organization that sets the OSH system is responsible for its practice of it effectively. Implementation and operations of the critical elements of OHSAS 18001:2007.

The primary objective of this case study is to understand the perception of employees' occupational safety practices (safety communication, management commitment, safety support at the workplace, accident reporting, safety self-efficacy and safety hazard awareness) in the selected manufacturing industry of Nepal.

The case study respondents are employees of Nepal Distilleries Ltd situated in Bagmati province in Nepal. The opinions of 65 out of 147 employees were analyzed to know influencing factors that affect the OS practices in the selected industry. The descriptive research design has been conducted to understand different variables. The case study focuses on the primary data analyses where a questionnaire is distributed to employees based on a convenience sampling technique to employees of NDPL on sample size of 65 out of the total strength of 147.

3.2 Conclusion

The primary conclusion of this study is that Safety Efficacy, Safety Hazard Awareness, Safety Communication, Management Commitment, Safety Support of coworkers at the workplace and Accident Reporting have a positive and significant effect on OS practices in Nepal Distilleries Private Limited. The study concludes that accident reporting, followed by safety communication and safety self-efficacy, is the primary determinant of OS practice in the manufacturing sector of Nepal. The oral interview with the safety coordinator also emphasis that management has put occupational safety as prime focused area and the same were reflected in Plant KPI presentation as well.

3.3 Limitations of the Study

This study aims to increase understanding and reduce the knowledge gap about occupational safety practices in the manufacturing industry. There are various efforts made to reach meaningful conclusions from the study. However, some limitations deserve to be considered for obtaining an authentic interpretation of the results. Some significant limitations are listed below:

1. The study was based mainly on a primary data source related to occupational safety practices in the selected manufacturing industry. Therefore, the study outcome's reliability depends on the accuracy of the information provided by the respondents. Sample collected from only one industry; hence the result cannot be generalized as the representation of the Bagmati province or Nepal.
2. Respondents are not equally divided by gender or experience basis.
3. The study is based on convenience sampling, which might cause sampling bias.

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