

READINESS OF LYCEUM OF THE PHILIPPINES-LAGUNA TO OHSAS 18001: OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATION

Dycelle M. Arante¹, Mizpah Joy F. Clarito¹, Jonas Arvin M. Tacla¹, Ma.Irish M. Villanueva¹,
Ramon George O. Atento², Ryan Jeffrey P. Curbano³

¹*Undergraduate Student, Industrial Engineering Department*

²*Human Resource Director, HR Office*

³*Industrial Engineering Faculty, Lyceum of the Philippines-Laguna
Lyceum of the Philippines University-Laguna (LPU-L), Laguna, Philippines*

ABSTRACT

This study assessed the importance of Occupational Health and Safety Management System in organizations. This helps reduce workplace accidents and illness, and cut out related costs and downtime, as well as prioritizing the welfare of the staff. The researchers came up with this topic to determine the level of conformity of the institution with regard to Occupational Health and Safety Management System. The researchers used survey questionnaire and interview to gather information and to determine the beliefs and knowledge of the respondents in the requirements set by Occupational Health and Safety Management System. The respondents were 124 employees from the top management down to the rank and file of the Lyceum of the Philippines-Laguna. Most of them were college graduates, belonging to the administrative staff, regular employees and were one to three years in service. Results revealed that the Institution is somewhat ready for the Occupational Health and Safety Management System because it slightly complied with the requirements set by Occupational Health and Safety Management System. A plan of action was recommended based on the results.

Keywords: Institutional Compliance on OHSAS 18001.

INTRODUCTION

Management system is not easy to implement in organizations. Managing safe and healthy work environment is one of the most

important environmental challenges facing organizations. But Management System can pave the way for optimum working conditions across organization. Management systems are tools that help an organization continually improve its health, safety and environmental performance.

Safe and healthy working environment is necessary for every organization. They contain organizational elements that follow a continuous cycle of planning, implementing, checking, and improving. It also provides a framework that allows organization to consistently identify and control its health and safety risks, reduce the potential for accidents, aid legislative compliance and improve overall performance.

In this fast growing economy, the risk of having accident and disease is huge. People are experiencing difficulty in staying healthy because of pollution and other things around us. According to International Labour Organization (ILO), an estimated 160 million people suffer from work-related diseases, and there are an estimated 270 million fatal and non-fatal work-related accidents per year. The suffering caused by such accidents and illnesses to workers and their families is

incalculable. In economic terms, the ILO has estimated that 4% of the world's annual Gross Domestic Product (GDP) is lost as a consequence of occupational diseases and accidents. Employers face expensive early retirements, loss of skilled staff, absenteeism, and high insurance premiums due to work-related accidents and diseases. In 1980's, World Health Organization and International Labour Organization defined towards a comprehensive approach in occupational health where the protection and promotion of workers' health are pursued together with the maintenance and promotion of their working capacity, with a special emphasis on the establishment and maintenance of a safe and healthy working environment for all. There is much room for discussion as to the manner in which occupational health is actually implemented. The expression occupational health practice is currently used to cover the whole spectrum of activities undertaken by employers, workers and their organizations, designers and architects, manufacturers and suppliers, legislators and parliamentarians, labour and health inspectors, work analysts and work organization specialists, standardization organizations, universities and research institutions to protect health and to promote occupational safety and health. (Coppée, 2011)

Significantly, having a safe environment is the first thing that companies and organizations should prioritize so that they could produce a quality product. Occupational Health and Safety Management System protects the members of the company, family, employers, customers and other people within and those affected by the

workplace environment. It is their duty to ensure the wellness of their employees.

The Lyceum of the Philippines - Laguna (Formerly Lyceum Institute of Technology) was incorporated on January 18, 2000. With Dr. Sotero H. Laurel, Chairman of Lyceum of the Philippines University and concurrently Chairman of Lyceum of Batangas; Mr. Feliciano L. Torres, President of Yazaki-Torres Manufacturing, Inc.; Atty. Roberto P. Laurel, President of Lyceum of the Philippines University; Mrs. Sarah Laurel-Lopez, Vice President/Treasurer of the Lyceum of the Philippines University; Mr. Peter P. Laurel, President of Lyceum of Batangas as incorporators, plans for LPL began to unfold. Lyceum of the Philippines - Laguna, an institution of higher learning, inspired by the ideals of Philippine President Jose P. Laurel, is committed to the advancement of his philosophy and values: "Veritas et Fortitudo" (truth and fortitude) and "Pro Deo et Patria" (for God and Country), as cited in the institution's webpage www.lpl.edu.ph..

The researchers have conceptualized in determining the readiness of Lyceum of the Philippines Laguna in Occupational Health and Safety Management System Certification. According to Mr. Ramon George Atento, Human Resource Director, the institution has the plan of applying for the OHSAS certification. This research study is own initiative of the researchers because it will be of great help to know the level of conformity of the organization with regard to occupational health and safety so that it can give the management

an idea of what proactive measures they needed to establish to comply with the standards and legal requirements.

Objectives of the Study

The study intended to present information concerning the readiness of Lyceum of the Philippines-Laguna in Occupational Health and Safety Management System.

Specifically, the study aimed:

1. To determine the demographic profile of respondents in terms of:
 - 1.1. Educational Attainment;
 - 1.2. Department;
 - 1.3. Position in the Organization;
 - 1.4. Status of Employment; and,
 - 1.5. Length of Service.
2. To determine respondents' level of agreement to the requirements and standards set by Occupational Health and Safety Management System in terms of:
 - 2.1. Institution Commitment and Policy;
 - 2.2. Planning;
 - 2.3. Implementation and Operation;
 - 2.4. Checking;
 - 2.5. Audit; and,
 - 2.6. Management Review?
3. To recommend plan of actions based on the findings of the study.

METHODOLOGY

Theoretical Framework

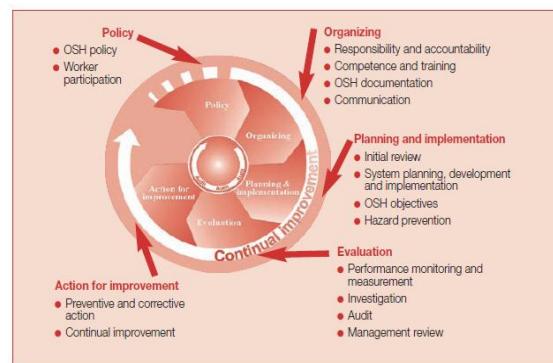


Figure 1 Occupational Health and Safety Management Cycle

(Source: International Labour Organization, 2001)

Figure 1 shows the management cycle of the Occupational Health and Safety (OHS). It consists of five different operations that recur regularly and usually lead back to the starting point namely policy, organizing, planning and implementation, evaluation and action for improvement. On the first operation which is policy, worker participation as well as management commitment and responsibility is highly needed. The full participation of workers in any OSH programmes designed for their benefit will not only ensure the efficacy of such measures, but will also make it possible to sustain an acceptable level of safety and health at a reasonable cost. Total commitment on the part of management in making safety and health a priority is essential to a successful OSH programme in the workplace. It is only when management plays a positive role that workers view such programmes as a

worthwhile and sustainable exercise. The boardroom has the influence, power and resources to take initiatives and to set the pattern for a safe and healthy working environment.

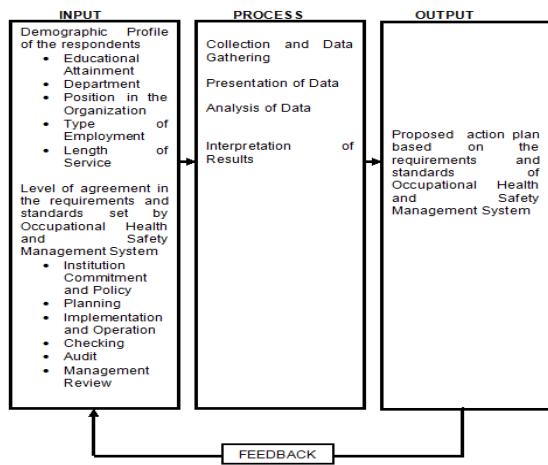
The process of organizing and running an OSH system requires substantial capital investment. To manage safety and health efficiently, adequate financial resources must be allocated within business units as part of overall running costs. The continuous integration of improvements into the work process is vital, but it is possible only if everyone involved is properly trained. Training is an essential element in maintaining a healthy and safe workplace and has been an integral component of OSH management for many years. The primary role of training in occupational safety and health is to promote action. It must, therefore, stimulate awareness, impart knowledge and help recipients to adapt to their own roles.

Planning and developmental activities are need to be undertaken both initially, in setting up the occupational safety and health management system, and thereafter,[in its periodic revision and modification. Systems and procedures should be thought through logically, beginning with identification of where injury or ill health can occur, and moving on to the institution of measures that will make these outcomes less likely. Management should put in place organizational arrangements that are adapted to the size of the undertaking and the nature of its activities. Such arrangements

should include the preparation of work procedures.

Evaluating the performance of the workers performing the Occupational Health and Safety program can be done simply by Monitoring and Measuring their compliance with the program. Incident investigations will be conducted when an accident occurs. Audits should examine everything carefully and verify all the preventive measures to obtain the corrective and preventive actions feedback to the planning process. For every deficiency found after evaluation, direct corrective measure is recommended to be taken immediately. The management review section is divided in two points of review, which are: (1) Management review process and (2) Management review outcomes and follow-up. A management review of OSHMS should be conducted at least once every year to ensure that proper actions are taken following evaluation and that improvements are continuously done, as well. The complete cycle is then repeated resulting in on-going continual improvements in occupational health and safety.

Conceptual Framework



The figure shows the input-process-output (IPO) which shows the proposed action plan based on the requirements set by Occupational Health and Safety Management System. This includes the sequence of procedure from the beginning up to the end of the study. The input includes the respondent's demographic profile. For the researchers to process input, they will gather and collect data using the survey questionnaires. The researchers will tabulate all the gathered data from the questionnaires and analyze how the respondents rate the level of agreement in the requirements and standards set by Occupational Health and Safety Management System. The researchers will then interpret the results. After the interpretations of the results, a recommendation or plan of proactive measures will be proposed by the researchers based on the results.

Research Methodology

The researchers used the descriptive research design in determining the readiness of Lyceum of the Philippines-Laguna in

Occupational Health and Safety Management System Certification. The study was a descriptive research because it involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection. It frequently uses illustration such as graphs and charts to aid the reader in understanding the data gathered.

Sample Size

A Sample size of 124 respondents, which is equally distributed to every department are used, it was determined using the Slovin's formula.

Sampling Design and Technique

The study used stratified sampling, where the entire target population are divided into groups per department. This ensures that the researcher has adequate amount of subjects from each class in the final sample.

The Subject

The respondents of the study are the administrative and support staff both regular and contractual as well as the faculty members with summer load in Lyceum of the Philippines-Laguna.

Research Instrument

The researchers used the survey questionnaire and interview as a material to gather information regarding the knowledge of employees working in Lyceum of the Philippines-Laguna in Occupational Health and Safety Management System.

The questionnaire is divided into two parts. The first part of the questionnaire is the demographic profile of the respondent. This part includes the name, educational attainment, department, position in the organization, status of employment and years in the service of the respondent.

The second part is the respondents' level of agreement on how institution complies within the requirements set by the Occupational Health and Safety Management System in terms of: Institution Commitment and Policy, Planning, Implementation and Operation, Checking, Audit, and Management Review. The researchers used Likert scale in identifying the level of agreement.

The information determines the knowledge and perception of the respondents in this research study.

Rate	Range	Verbal Interpretation	Interpretation of Results
4	3.50-4.00	Strongly Agree	Compliance
3	2.50-3.49	Agree	Slight Compliance
2	1.50-2.49	Disagree	Slight Non-compliance
1	1.00-1.49	Strongly Disagree	Non-compliance

Validation of Research Instrument

The survey questionnaire is adapted from the British Standards Institution in UK and certain other countries throughout the world. It does not require any validation since it is standard. The researchers still consulted to Dr. Merlita Medallon, Director of Research Office and Engr. Rionel Caldo, research coordinator

for the College of Engineering to determine if the Likert Scale that is used by the researchers to gather information is sufficient enough to address the statement of the problem of the research study. The research instrument is also presented to the researchers' adviser, Mr. Ramon George Atento and to the subject instructor, Engr. Ryan Jeffrey Curbano for the final checking.

Data Gathering Procedure

From the time that the instrument is validated and the data that is used is considered reliable, the researchers gave letter to the Research Office and to the Executive Office to allow them to conduct the study within the school. As soon as the letter is approved, the researchers distributed the questionnaire.

Data Processing Method

The researchers manually sort the data gathered from the respondents as soon as the questionnaires has been retrieved. The data is tabulated and organized using Microsoft Office Excel. The researchers analyze the level of agreement of the respondents on Occupational Health and Safety Management standards that was tested on the Readiness of Lyceum of the Philippines Laguna in Occupational Health and Safety Management System Certification.

To analyze it further, it runs, under the use of statistical approach which is the Statistical Packages and Social Sciences (SPSS) with the help of statistician, Dr. Merlita Medallon. The researchers then interpreted the obtained results.

Statistical Treatment

1. Percentage Formula is used to determine the percentage profile of the respondents. The formula is written as:

$$\% = \frac{f}{N} \times 100$$

Where:

$\%$ =Percentage

F = Frequency

N = Number of Respondents

2. Weighted mean is used to determine the respondents' level of agreement on the different standards set by Occupational Health and Safety Management System. The formula is written as:

$$\bar{x}_w = \frac{\sum fw}{N}$$

Where:

\bar{x}_w = weighted mean

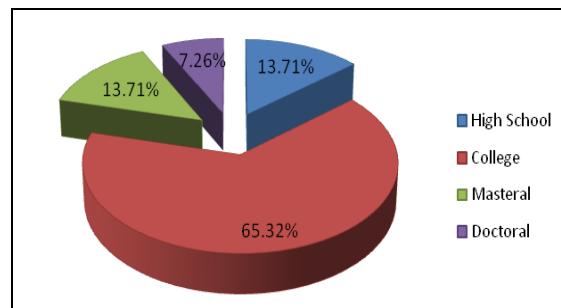
f = frequency

W = weight of each item

N = total number of respondents

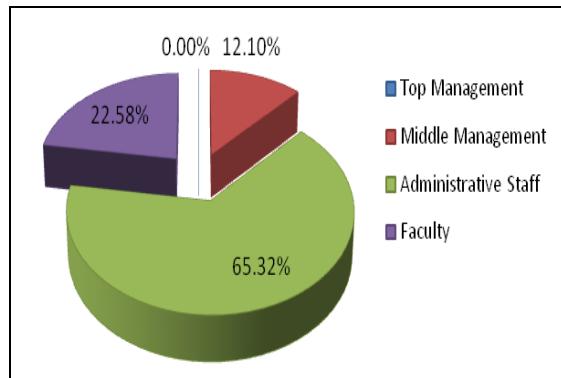
PRESENTATION AND ANALYSIS OF DATA

Educational Attainment



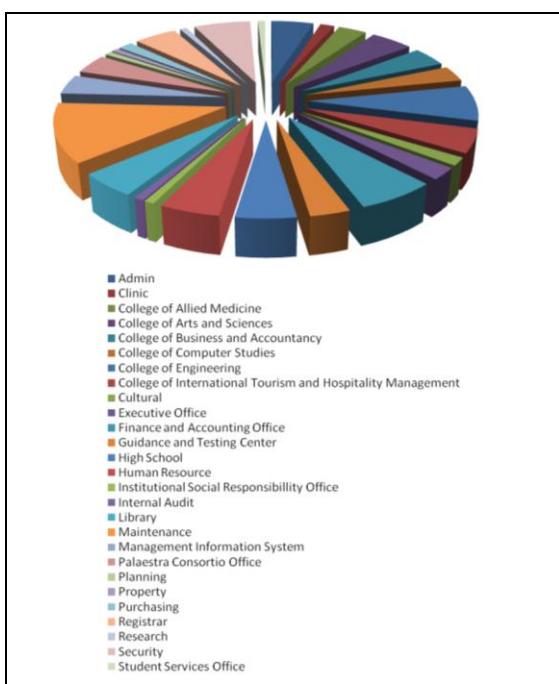
Majority (65.32%) of the respondents were college graduate. Those respondents who are high school graduates and with master's degree are both 13.71% and only 7.26% of the respondents finished doctorate degree.

Position in Organization



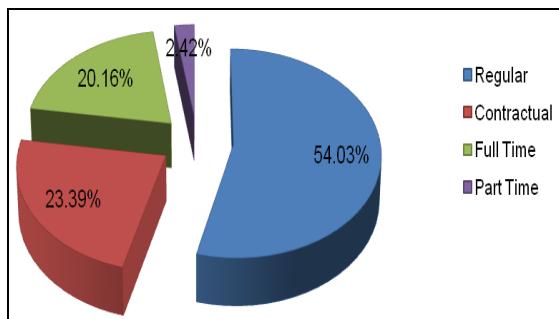
Most of the respondents (65.32%) are part of the administrative staff. 22.58% are faculty members and 12.10% are part of the middle management. There is no respondent from the top management due to their unavailability.

Department/Office



Majority of the respondents are from the maintenance department with the total of 15 respondents, while the other department has ranges of 1-9 respondents.

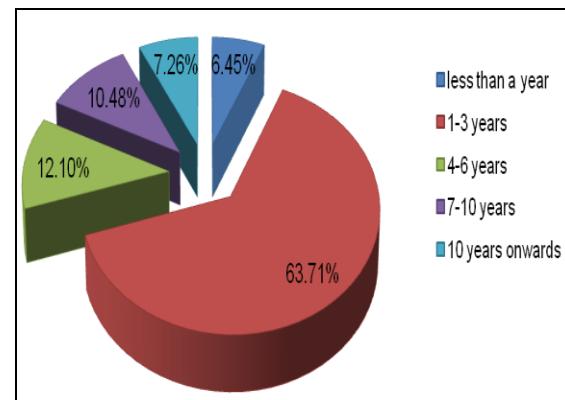
Status of Employment



Majority of the respondents (54.03%) are regular employees, while 23.39% of the respondents are contractual employees, which has a sample size of 96 employees. 20.16% are Full-time faculty members and 2.42% are

part-time faculty members, which has a sample size of 28 faculty members.

Length of Service



63.71% of the respondents have been in the organization for one to three years, 12.10% are in the organization for 4-6 years and 10.48% has been in service for 7-10 years. Respondents who are in service for more than 10 years both got a percentage of 7.26%. Those respondents who work for less than a year is 6.45%. This just shows that the majority of the respondents are knowledgeable enough on the system of the organization.

a) In terms of Institution Commitment and Policy

Institution Commitment and Policy	Weighted Mean	Verbal Interpretation
1 The organization has a published OH&S policy that has been communicated to all personnel working in the organization	2.88	Slight Compliance
2 The organization does recognize the need to achieve a high level of OH&S performance with compliance to legal requirements	2.94	Slight Compliance
3 The organization does commit itself to implement the published OH&S policy and consider it as a prime responsibility with top management down to lower management	2.9	Slight Compliance
4 It does recognize the need to gain the commitment of employees to the policy by encouraging their active participation	2.96	Slight Compliance
5 It does commit itself to periodically reviewing the policy and management system and to carry out audits to verify compliance with the policy	2.9	Slight Compliance
6 The organization ensures that employees receive appropriate training and are competent to carry out their duties and responsibilities	2.96	Slight Compliance
GRAND WEIGHTED MEAN	2.92	Slight Compliance

All statements are slightly complying on OHSAS requirements based on the perception of the respondents. All statements garner a weighted mean having a range of 2.88-2.96 that gives a grand weighted mean of 2.92 verbally interpreted as “slight compliance.”

b) In terms of Planning

Planning	Weighted Mean	Verbal Interpretation
1 A risk control action plan is in place to deal with those unacceptable risks.	2.85	Slight Compliance
2 Legal and other requirements which apply to all activities are identified and there is relevant documentation.	2.9	Slight Compliance
3 There is an overall plans and objectives for achieving OH&S policy.	2.83	Slight Compliance
4 There are sufficient knowledge, skills and experience available to manage OH&S issues effectively.	2.81	Slight Compliance
5 Operational plans for implementing risk control, legal and other requirements are in place.	2.89	Slight Compliance
6 Arrangements are in place for implementing, monitoring and reviewing corrective and preventive actions if any.	2.93	Slight Compliance
GRAND WEIGHTED MEAN	2.87	Slight Compliance

All statements slightly complied based on the perception of the chosen respondents. All statements garner a weighted mean having a range of 2.81-2.93 that gives a grand weighted mean of 2.87 verbally interpreted as “slight compliance.”

c) In terms of Implementation and Operation

Implementation and Operation	Weighted Mean	Verbal Interpretation
1 A top manager is allocated with full responsibility for OH&S throughout the organization	2.94	Slight compliance
2 There is clear responsibility, delegation and accountability in the management structure	2.9	Slight compliance
3 All personnel working for, or on behalf of, the organization are aware of their individual responsibilities	3.01	Slight compliance
4 All personnel working for, or on behalf of, the organization are aware of their responsibility to others who may be affected by the activities they control	2.99	Slight compliance
5 All personnel working for, or on behalf of, the organization are aware of the consequences of their action or inaction	3.06	Slight compliance
6 A training, awareness and competence assessment programme is in place for personnel working under its control	2.9	Slight compliance
7 A system for effective, open two-way communication of OH&S information is in place	2.92	Slight compliance
8 An adequate documentation system is in place	2.87	Slight compliance
9 A system is in place for ensuring documents are kept up to date and relevant	2.86	Slight compliance
10 Contingency plans are in place for emergencies	2.89	Slight compliance
GRAND WEIGHTED MEAN	2.93	Slight compliance

All of the statements that fall under the Implementation and Operation slightly complied based on the perception of the chosen respondents. All statements garner a weighted mean having a range of 2.86-3.06 that gives a grand weighted mean of 2.93 verbally interpreted as “slight compliance”

d) In terms of Checking

Checking	Weighted Mean	Verbal Interpretation
1 OH&S performance and the effectiveness of controls is routinely measured	2.86	Slight Compliance
2 Proactive measures are used	2.84	Slight Compliance
3 Reactive measures are used	2.85	Slight Compliance
4 Monitoring OH&S performance to ensure policy, objectives and targets are being met is taking place	2.83	Slight Compliance
5 Where performance is not meeting criteria, the root causes are identified and appropriate corrective and preventive action is taken	2.9	Slight Compliance
6 Evaluation of institution against legal and other requirements is undertaken periodically	2.85	Slight Compliance
7 Records of compliance against legal and other requirements are being kept and maintained	2.92	Slight Compliance
8 There is a procedure for reporting, investigating and correcting any health and safety incidents	2.89	Slight Compliance
GRAND WEIGHTED MEAN	2.87	Slight Compliance

All of the statements that fall under Checking slightly complied based on the perception of the chosen respondents. All statements garner a weighted mean having a

range of 2.83-2.92 that gives a grand weighted mean of 2.87 verbally interpreted as “slight compliance.”

e) In terms of Audit

Audit	Weighted Mean	Verbal Interpretation
1 Programmed audits of the OH&S Management System are taking place	2.85	Slight Compliance
2 Staff conducting audits are independent from the activity being audited	2.86	Slight Compliance
3 Audits identify strengths and weaknesses in the OH&S Management System	2.79	Slight Compliance
4 Audits verify that the organization is achieving its OH&S performance targets	2.82	Slight Compliance
5 Audit results are communicated to all relevant personnel and basis for corrective action	2.86	Slight Compliance
GRAND WEIGHTED MEAN	2.84	Slight Compliance

All statements garner a weighted mean having a range of 2.79-2.86 that gives a grand weighted mean of 2.84 verbally interpreted as “slight compliance”.

f) In terms of Management Review

Management Review	Weighted Mean	Verbal Interpretation
1 Programmed reviews of the OH&S Management System are taking place	2.84	Slight Compliance
2 The review considers the overall performance of the OH&S Management System	2.83	Slight Compliance
3 The review considers the performance of the individual elements of the System	2.88	Slight Compliance
4 The review is forward-looking, adopting a proactive approach towards improving the OH&S Management System and business performance	2.9	Slight Compliance
5 The review identifies decisions and actions relevant to changes to OH&S performance, policy and objectives	2.9	Slight Compliance
GRAND WEIGHTED MEAN	2.87	Slight Compliance

All of the statements that fall under the Management Review slightly complied based on the perception of the chosen respondents. All statements garner a weighted mean having a range of 2.83-2.90 that gives a grand weighted mean of 2.87 verbally interpreted as “slight compliance.”

CONCLUSIONS

- a. Majority of the respondents' demographic profile in terms of educational attainment, position in organization, status of employment, department, and length of service are college graduate, administrative staff, regular, maintenance and 1 to 3 years in service respectively. Based on the results, the respondents are knowledgeable and experienced enough on how the organization manage the system. The researchers then can say that the data gathered from the respondents are reliable enough to make the research feasible.
- b. Based on the findings, the researchers conclude that Lyceum of the Philippines-Laguna is somewhat ready, in case 18001 Occupational Health and Safety Management will be implemented.
- c. Since the system slightly complied with the program, based on the results, the researchers concluded that Lyceum of the Philippines-Laguna just need to develop further their system, so it will fully comply with the standard requirements of Occupational Health and Safety Management.

RECOMMENDATIONS

1. The researchers recommend that policy of the institution must develop, improve, enhance and boost its scheme in terms of health and safety of employees and other individual inside the university.

2. The administration must execute the presented proposed action plan so that areas that need to be improved will be addressed. According to Mr. Rizalino Giovanni Juliano, Planning and Quality Assurance, this research will be helpful as Lyceum is planning to apply for this certification.

3. The administration of LPU-L must implement the OHSAS 18001 for them to encourage more employees and students. It will help to create the best possible working conditions across the organization and will identify hazards and put in place controls to manage them.

OHSAS 18001 will engage and motivate staff, faculty and students of LPU-L with better, safer working conditions and will definitely demonstrate compliance to the employees and other individual in the institution.

4. It would be better for the future researchers to conduct the study at longer time duration.

5. Make sure to interview people who are knowledgeable enough on Occupational Health and Safety just like a Safety Officer who is trained enough or those who have experienced attending seminars and training regarding Occupational Health and Safety so as to give much detail on the information that are really needed.

6. Since the researchers now proposed an action for the institution to comply with standards of Occupational Health and Safety Management System, future

researchers can expand this study by studying the effectiveness of the System that will be implemented in the institution.

REFERENCES

- [1] Alli, B. O. (2008). *Fundamentals of Occupational Health and Safety* (2nd ed.). Geneva, Switzerland: ILO Publications.
- [2] Bovornsuppasri, C. (2005). *A Readiness Assessment of Company XYZ to Implement OSHA's Voluntary Protection Program*
- [3] BS OHSAS 18001 Occupational Health and Safety | BSI America. (n.d.). Retrieved from <http://www.bsiamerica.com/en-us/Assessment-and-Certification-services/Management-systems/Standards-and-schemes/OHSAS-18001/>
- [4] "Occupational Health and Safety Management System: OHSAS 18001." ARC Management Systems. Retrieved from <http://arcms.ie/home/health-and-safety-systems/ohsas-18001-occupational-health-and-safety-management-system/>