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Assessment of Equipment Handling Practices in the Hospitality Industry: A Case Study of Kathmandu's Key Departments

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Abstract

This study investigates equipment handling practices within the hospitality industry in Kathmandu, focusing on the frequency of use, types of equipment handled, training provided, and safety measures observed. A descriptive research design was employed, utilizing a quantitative survey approach that targeted 125 participants across three key departments: food production, food and beverage service, and housekeeping. Random sampling techniques were applied to conduct in-depth inspections, evaluate staff training, and assess the documentation and maintenance routines. The findings reveal that a significant portion of staff handles equipment daily, with food production equipment being the most commonly used. While training on equipment handling is regularly provided, issues such as the lack of written guidelines, limited access to personal protective equipment (PPE), and infrequent maintenance checks were identified as critical concerns. Additionally, safety protocols, particularly for heavy equipment, and the clarity of operational instructions were found to be inadequate in some cases. The study underscores the importance of consistent training, proper documentation, and the implementation of safety protocols to enhance equipment handling practices in the hospitality sector.

Keywords: Equipment, Handling, Hospitality, Industry

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Introduction

The loading, unloading, storing, and regulating of equipment via a production unit are examples of equipment handling. Equipment handling is mostly used to ensure that the equipment arrives at its destination in the appropriate quantity in order to reduce part production costs (Brisco, Ulrich, & Serge, 2024).

In order to achieve customer qquality standards, equipment handling in the food industry is described as the planning, carrying out, and controlling of transport activities as well as the storing of the products, which includes services and related information from the point of origin to the site of use (Amit, Uddin, Rahman, Islam, & Khan, 2017).

The difficulties in the company's supply chain are in keeping or lowering the stock levels at buffers or storage locations. The inventories management methods have been applied to solve the problems associated with inventories (Rodriguez & Palallos, 2024). Manpower, material, and equipment are the three input components that have a major impact on production efficiency of an organization. Therefore, when the aforementioned input factors are combined in a way that balances the input factors related to material, customer demand can be met. Material handling, on the other hand, is the portion of manufacturing that deals with the initial planning, procurement, handling, storing, and distribution of material for manufacturing (Kanike, 2023).

Accidents are decreased and eliminated when correct material handling procedures are followed because careful and appropriate equipment handling is carried out (Perttula, Merjama, Kiurula, & Laitinen, 2003). Material handling increases an organization's profitability by reducing and eliminating accidents (Kareem, Mohammed, & Abdulwahab, 2022). This is because the business can avoid paying for accident-related expenses while still maintaining optimal productivity. In a similar vein, efficient material handling lessens labor and stress.

For seamless operations and satisfied guests, effective equipment management is essential in the hospitality sector. But there are obstacles in the way of efficiently handling different kinds of equipment, such cleaning supplies, cooking appliances, and visitor amenities (Khadka, Karki, & Khanal, 2021). Variations in usage, loss, and damage make it challenging to maintain and manage the equipment inventory. It also creates the dis-balance on the record keeping of an organization. Also, in many cases due to the lack of scheduled maintenance of equipment bring the malfunctioning which could interrupt operations and leave customers unhappy.

It is difficult to arrange and store equipment effectively when there is a lack of storage space, particularly in kitchens and housekeeping areas. Employees may not have received enough instruction in safe equipment handling methods, which could result in accidents, inefficiencies, and problems with compliance.

Hence, all the above reasons for the ineffective equipment handling might lead to needless expenses in terms of manpower, time and money. This can be reduced with the timely and effective equipment handling of the hospitality industry.

- To assess the Equipment Handling in Hospitality Industry

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Research Methods

This study adopted descriptive research design. This research used a quantitative survey to determine equipment handling in hospitality industry in Kathmandu. This study target population including 125 participants who worked in the hospitality industry including both the online survey and on site survey. The specifically target respondents were from three departments i.e food production department, food and beverage service department and accommodation or housekeeping department and also targeted heads of the departments. In the study, Random sampling for in-depth inspections, staff training, performance testing, documentation of maintenance, and routine inspections as part of its equipment handling sampling procedures. Questionnaires allowed for the speedy collection of the large amount of information on the measures of the equipment handling and the required safety procedures on equipment handling. The Atharva Business College's approval was requested before fieldwork operations, and they provide an introduction letter. The importance of ethical thought was addressed throughout the research process. All participants provided informed consent, confirming their understanding of the study's objectives, voluntary participation, and the confidentiality of their answers.

Results

Frequency of handling equipment

The responses on the daily equipment handling was found to be higher. Fig.1 shows that about 52.8% of the respondent used to handle equipment handing in their role on the duty period which was followed by 24% weekly and 13.6% month and only 9.6% occasionally.

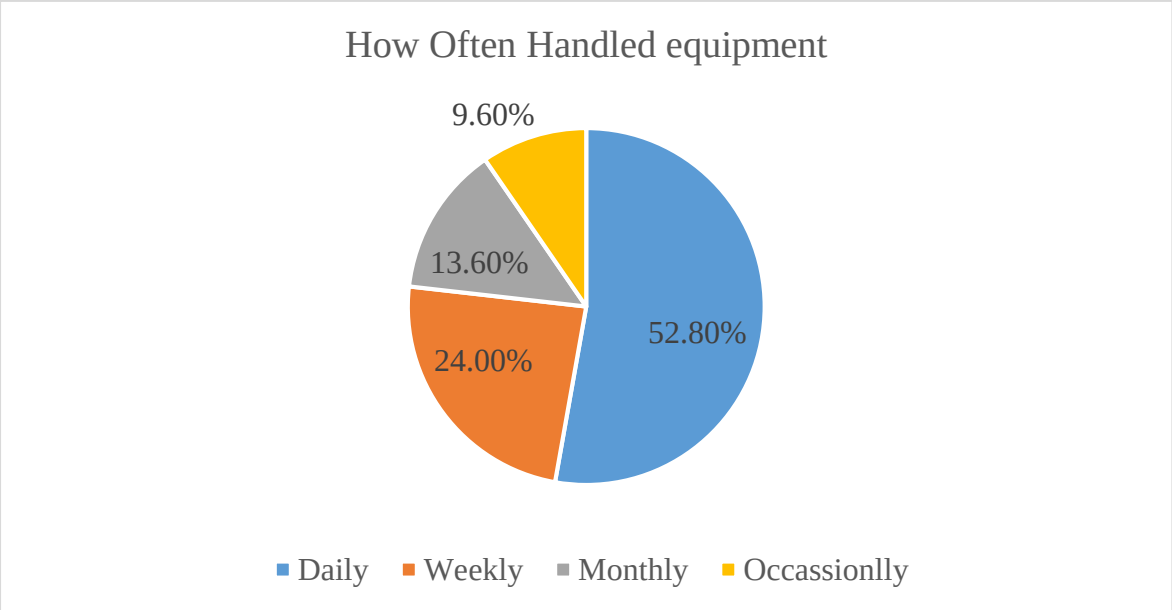

Figure 1: How often handled equipment

Types of equipment handled

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Since the maximum responded were cook, waiters, more than half of the responded i.e. 51.2% responded to have handled food production equipment such as knives, cutting board, oven, grills etc. Similarly, 29.6% had to handle service equipment such as trays, carts etc and 18.4% handled cleaning equipment like vacuum cleaner, mops.

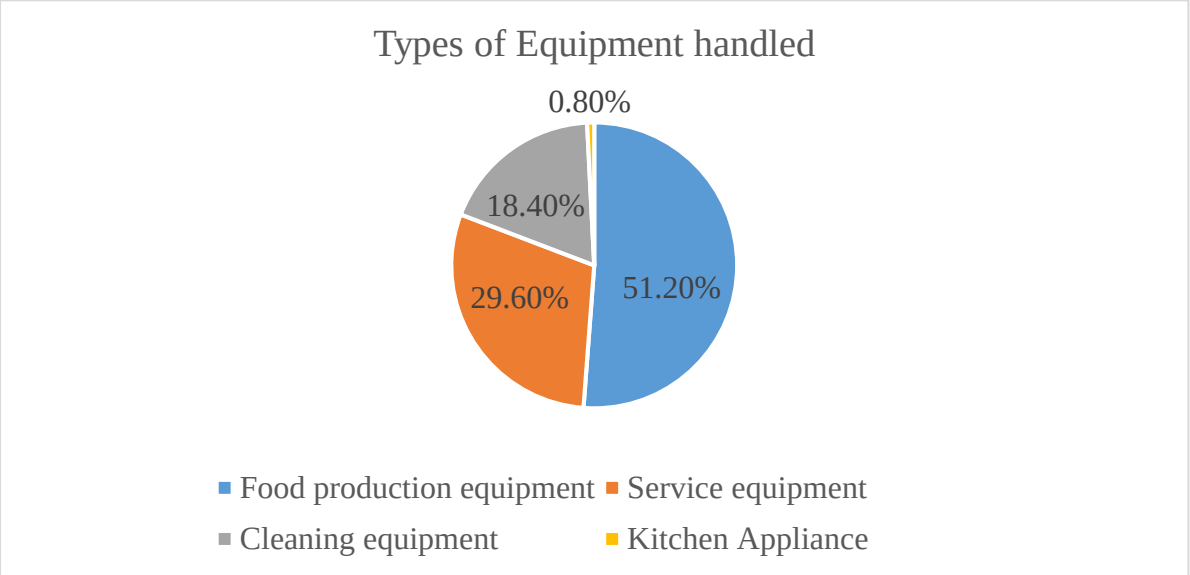
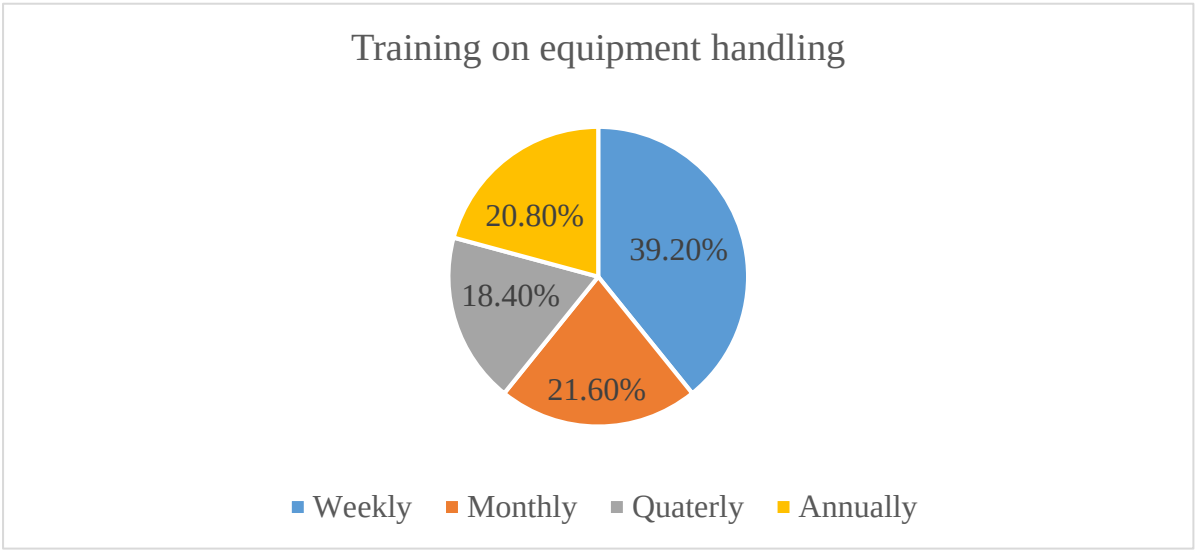


Figure 1: Types of Equipment Handled

Training received on equipment handling

Frequent training on the equipment handling to the staffs is very crucial for the proper functioning of the hospitality industry. On the surveyed respondent, 39.2% received training on the weekly basis, 21.6% received monthly training, 18.4% received quarterly training and



20.8% received training annually. The fig iii shows that training to the staff is good and satisfactory.

Figure 2: Training on equipment handling

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Written guideline for operating equipment

Fig 3 shows that about 30.40% of he responded don't have the written guideline for operating equipment. No written guideline could bring conflict between the staffs on handling equipment and also might delay on operating equipment in some cases.

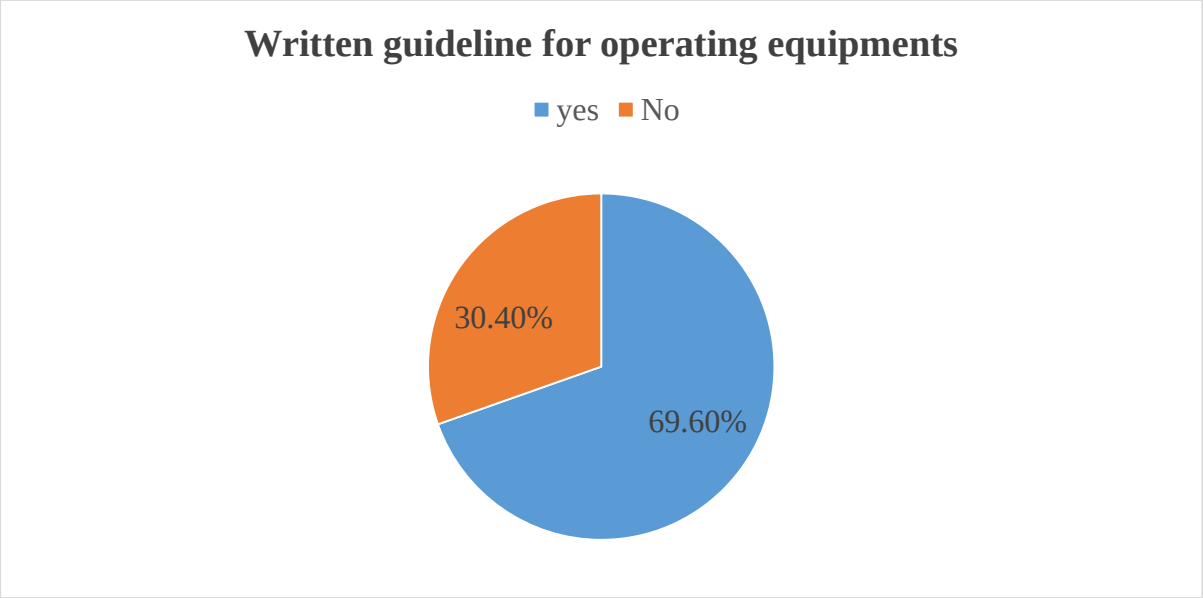

Figure 3: Written guideline for operating equipment

Comfortable operating equipment

Fig 4 shows that very few respondent (0.19%) were comfortable in operating oven while they were comfortable in operating equipment like refrigerator, microwave and vacuum. This might be because higher percentage of respondent were handling food preparation equipment. Also, oven is an advance technology in food production which operators on very high temperature and required significant precaution while using it which might be te reason that the very few responded oven to be comfortable in operating.

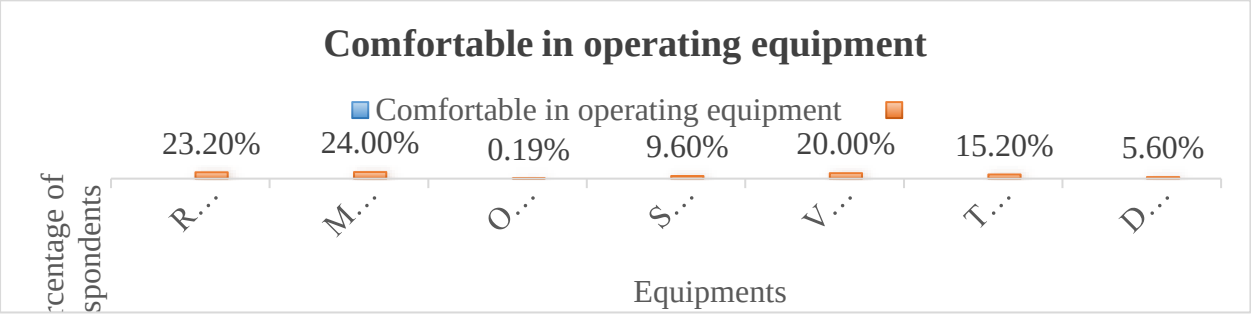

Figure 4: Comfortable in operating equipment

Encountered safety issues while handling equipment

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75% of the respondent responded that they have encountered the safety issues while handling equipment. Though the daily, weekly, quarterly and annually training on the equipment handling is provided to the respondent, the percentage of respondent with written guideline for operating equipment was not satisfactory which could be one of the reason that maximum percentage of the respondent encountered safety issues while handling equipment.

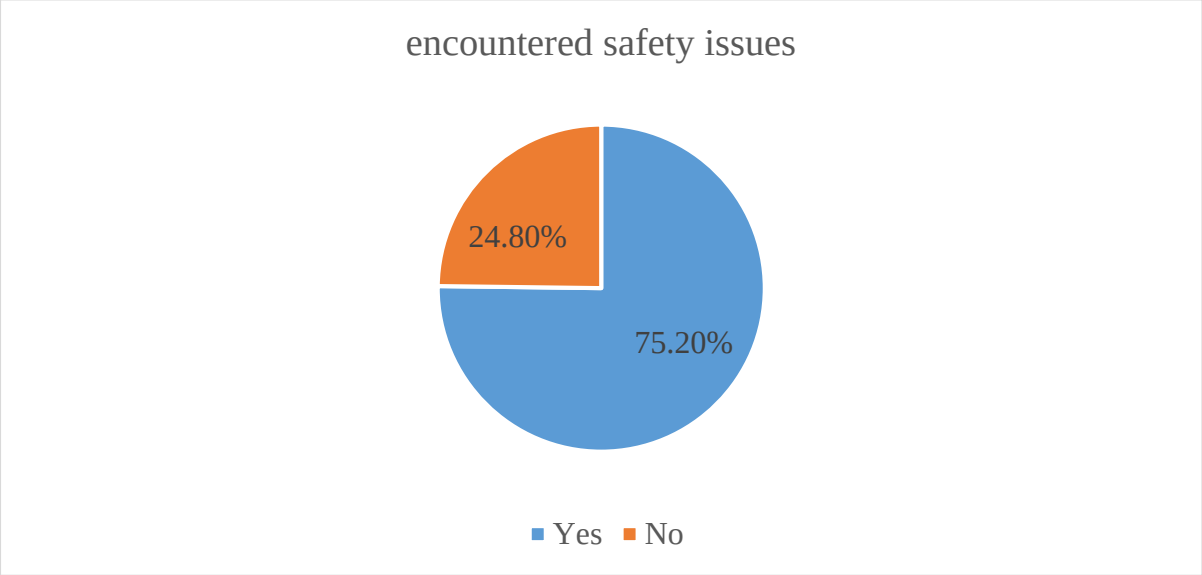

Figure 5: Encountered safety issues

Frequency of performing routine maintenance checks on equipment

Fig 6 shows the frequency of performing routine maintenance check on equipment by the respondent. 36% perform daily, 30.4% perform weekly, 17.6% perform monthly and 16% of the respondent performs quarterly maintenance check on equipment at their workspace.

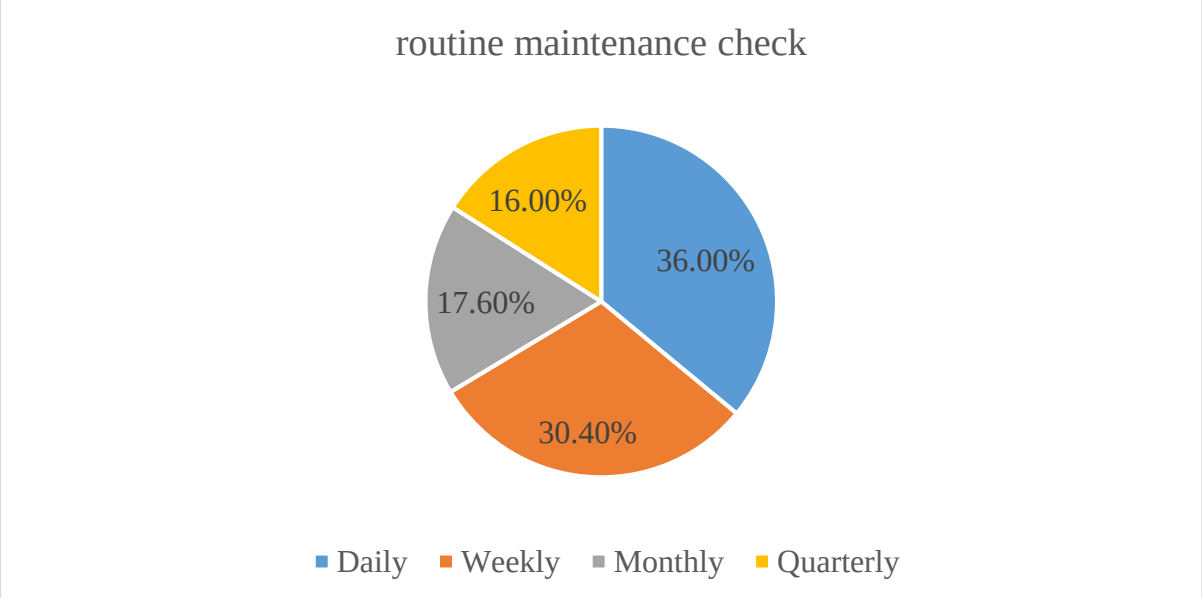

Figure 6: Routine Maintenance check

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Specific Protocol for cleaning and sanitizing equipment

78.4% of the respondent shared that there is a specific protocol for cleaning and sanitizing equipment in their workspace. This protocol would help in the performance of the equipment for the longer period of time with greater efficiency and also reduces the time o performance too.

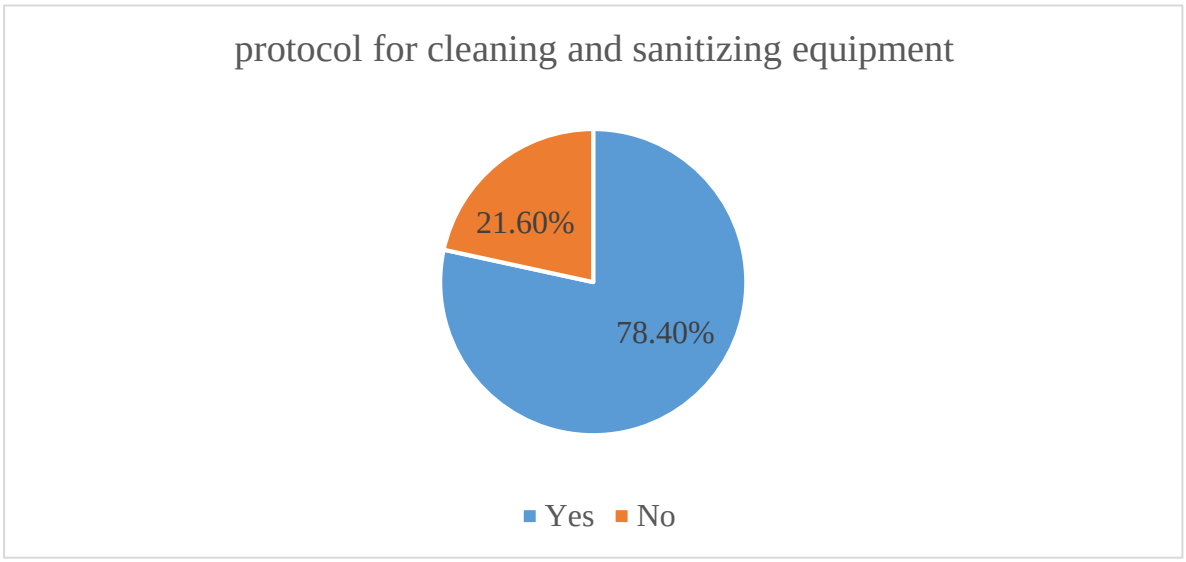

Figure 7: Protocol for cleaning and sanitizing equipment

Access to personal protective equipment while handling equipment

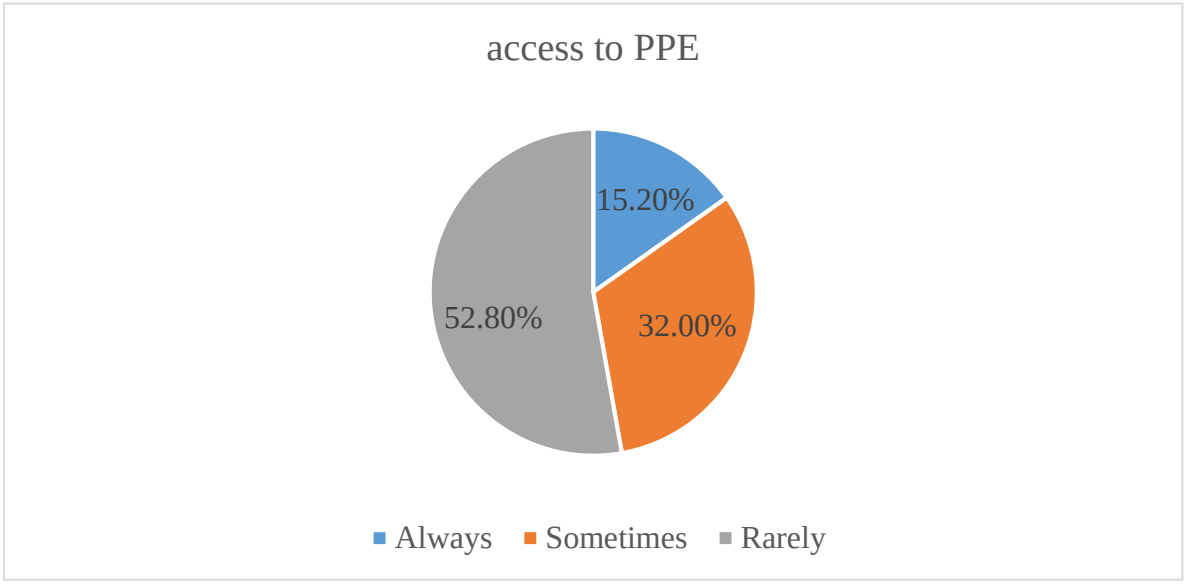

Figure 8: Access to PPE

Personal protective equipment are required to stay safe. Based on the types of equipment, the PPEs are available. But the fig ix shows that higher percentage of the respondent rarely have

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access to the personal protective equipment while handling equipment. This might be reason for the occurrence of safety issues by the respondent while handling equipment. Only 15.2% of the respondent have access to the personal protective equipment which is te green signal for the safety issues at the organization.

Rate accessibility of equipment manuals and instructions

Equipment manual and instructions guide the staffs properly to correctly use the equipment and reduces the accident that might occurs through wrong knowledge about the equipment functioning. But among the respondent only 10% receives the proper manual and instruction.

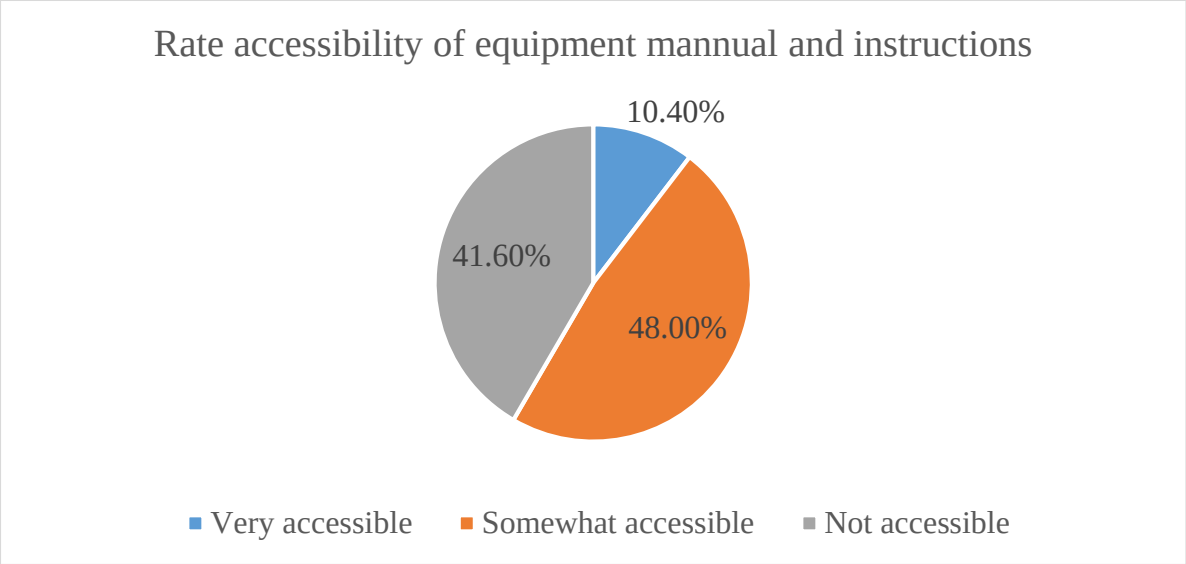
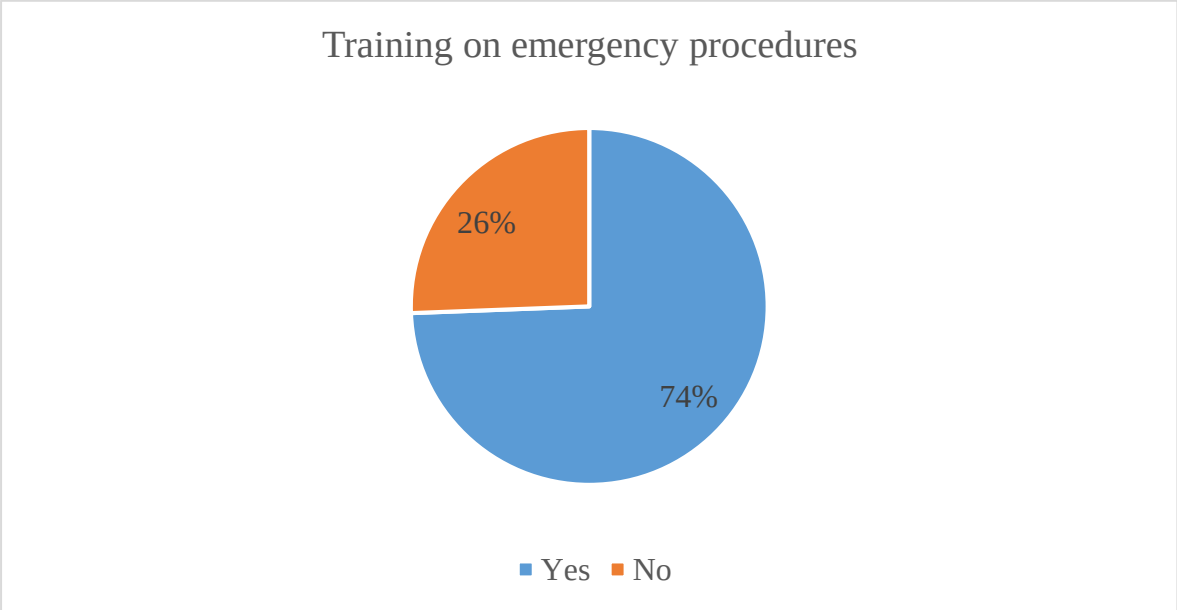


Figure 9: Rate accessibility of equipment manual and instruction

Training on emergency procedures related to equipment malfunction

Training on equipment malfunction is required. This helps staffs to understand the reason for the equipment malfunctioning as well as help resolve the small malfunctioning before the



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technician reaches. Also, in some case, equipment malfunctioning might be risky to the operators, so , if they have training on emergency procedures related to equipment handling, they might be able to handle the emergency situation. Among the respondent 74% of them have received training on emergency procedures related to equipment malfunction.

Figure 10: Training on emergency procedures

Process to report equipment malfunctions or issues

About 56% of the respondent report about the equipment malfunctions or issues through verbal communication while 20% through written communication and 24% through electronic system. The verbal communication is regarded as the poorest system of communication compared to written and electronic system. But based on the responded fig xii shows that the higher percentage of responded report through verbal communication. This method is also not reliable and not proof giving too.

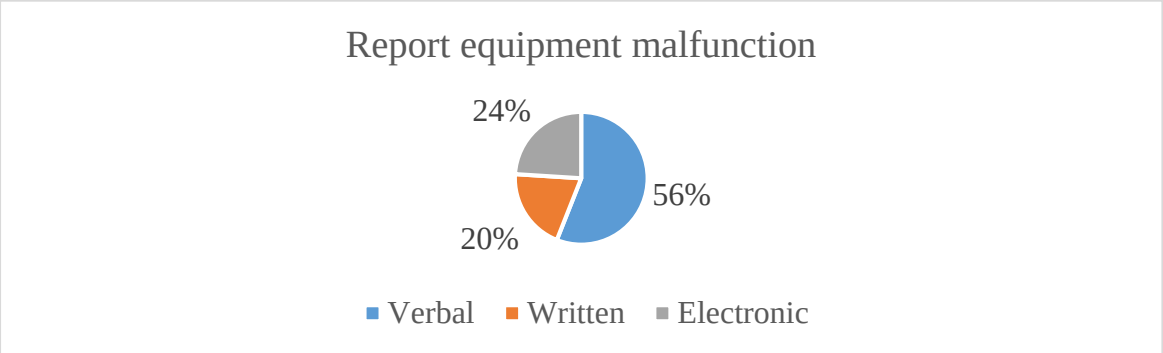
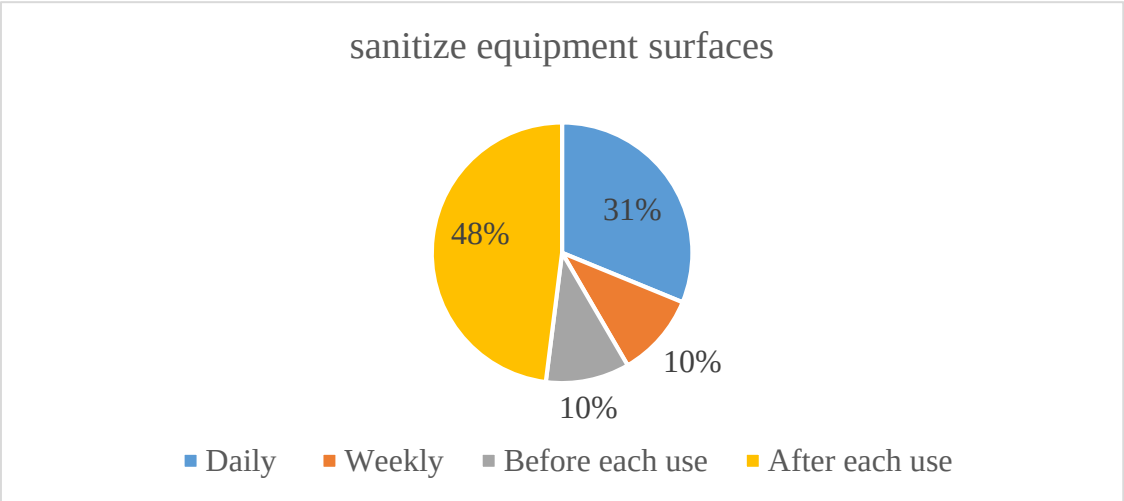


Figure 11: Report Equipment Malfunction

Frequency of sanitizing equipment surfaces

The pie chart illustrates staff's opinions on how frequency of sanitizing equipment surfaces can be used or functioning of the hospitality industry.

It demonstrates that 48% of respondents use after each use basis they sanitize equipment, 31% of respondents use daily basis they sanitize equipment, 10% of respondents use weekly basis



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they sanitize equipment and 10% of respondents use before each use basis they sanitize equipment. The figure xiii shows that sanitize equipment surfaces is good and satisfactory.

Designated area for storing equipment

The distribution of responds on what percentage of people has received any designated area for storing equipment in their industry is shown in the pie chart. The chart is divided into two portions that correspond to the two types of responses.

Those who responded yes and indicated that their industry has designated area for storing equipment which takes up 81% of the chart. According to this minority, a 81% of the participants may have received designated area for storing equipment. 19 % of the charts smaller area corresponds to those who gave a negative response, suggesting that their industry has not received any designated area for storing equipment. According to this minority, a 19% of the participants may not have received any designated area for storing equipment used in their organization.

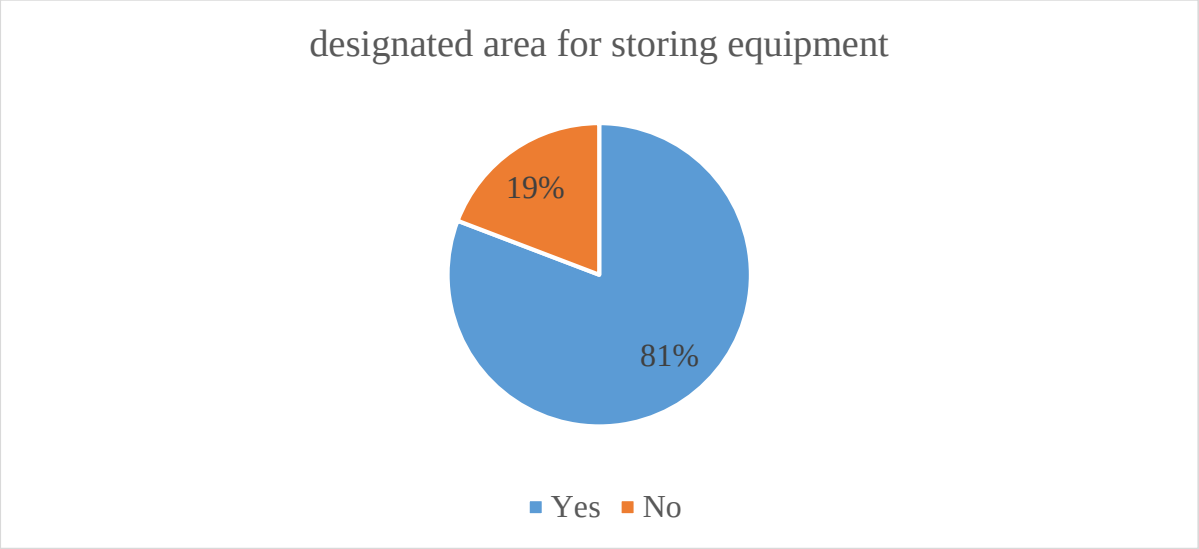

Figure 12: Designated area for storing equipment

Rate organization of storage area

The pie chart represents the responses to the statement, “How would you rate the organization of equipment storage areas?” Three categories are listed on the chart: “Very organized”, “Somewhat organized” and “Disorganized”.

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6% of the respondents disorganized with the statement, indicating that they don't have equipment storage areas to keep an equipment's in their industry. 42% of the respondents somewhat organized in their organization, by knowing the importance of keeping an equipment's in safe places in their industries, or 53% , very organized with the statement that showed the rate organization of equipment storage area in their industry.

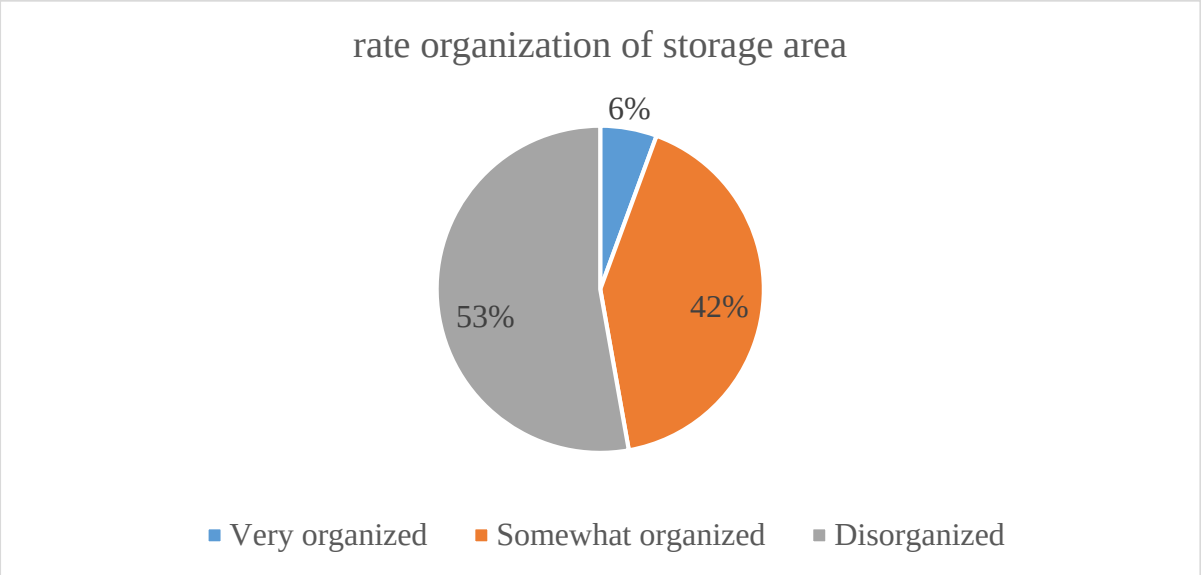

Figure 13: Rate organization of storage age

Equipment handling procedure reviewed and updated

The responses to the question, "How often are equipment handling procedures reviews and updated?" are represented in the pie chart. Different levels of reviewed and updates are shown by the chart's three segments.

18% of the respondents regularly with the statement, indicating that they have some equipment handling procedure in their industry. 34% of the respondents rarely with the statement, indicating that they don't have any equipment handling procedure in their industry. The majority of respondents, 49%, occasionally with the statement that highlighted the value of handling equipment procedures reviews and updated in their industries.

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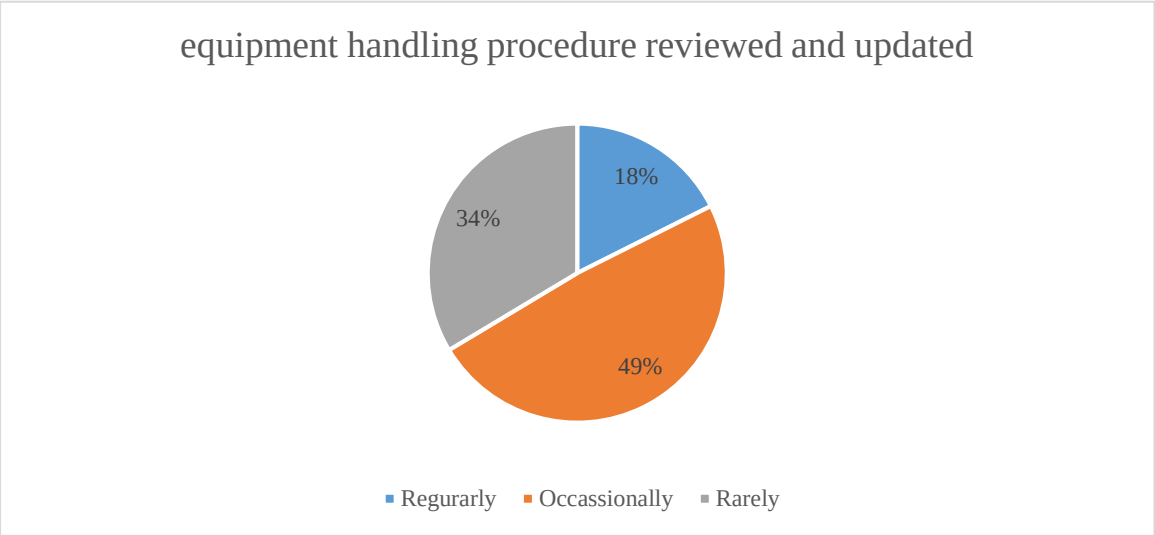

Figure 14: Equipment handling procedure review and updated

Safety protocol for lifting heavy equipment

In the given pie chat, the responses to the statement "Are there any specific safety protocols for lifting heavy equipment?" The majority of participants, 77% yes with the statement which highlights the need of safety protocols for lifting heavy equipment. Furthermore, 23% of respondents no with the statement, showing that they haven't need any specific safety protocols for lifting heavy equipment in their organization.

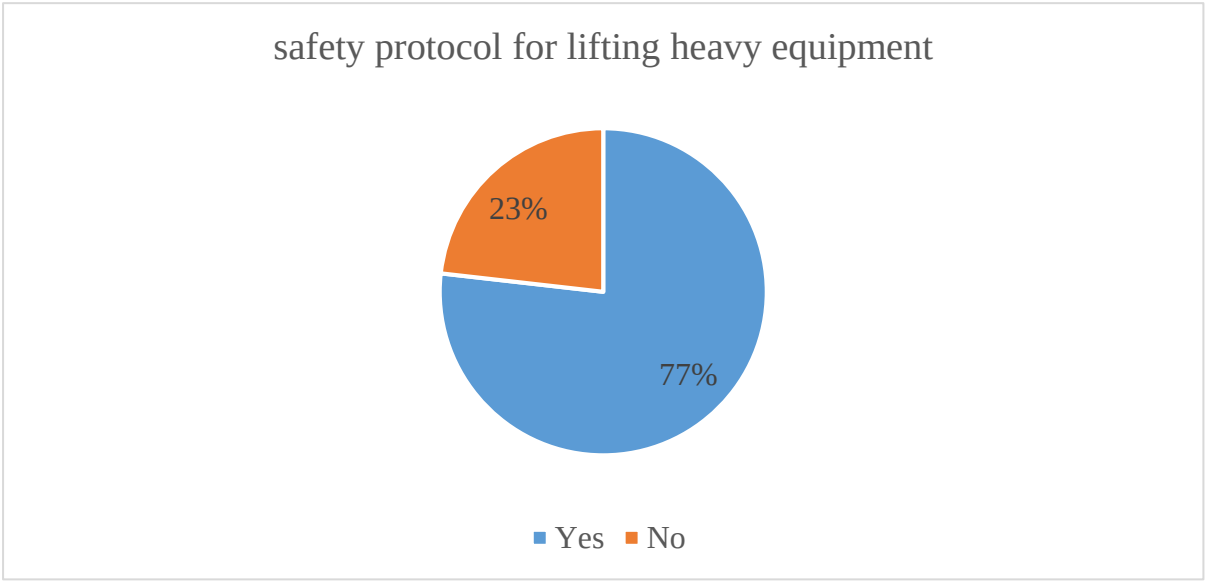

Figure 15: Safety protocol for heavy equipment

Receive feedback/performance evaluation

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The pie chart presents information about how well received feedback and performance evaluation regarding equipment handling. Responses from individuals to this issue were gathered and divided into two groups: “Yes”, “No”.
According to the chart, 71% of respondents, or a majority, said yes, suggesting that thought about receiving a feedback and performance evaluation had used the proper methods. This demonstrates a high degree of satisfaction with and confidence in the performance of handling equipment. 29% of the respondents said no for the receiving and feedback and performance evaluation had not used the proper methods. This chart highlighting to collect a feedback and performance of equipment handling.

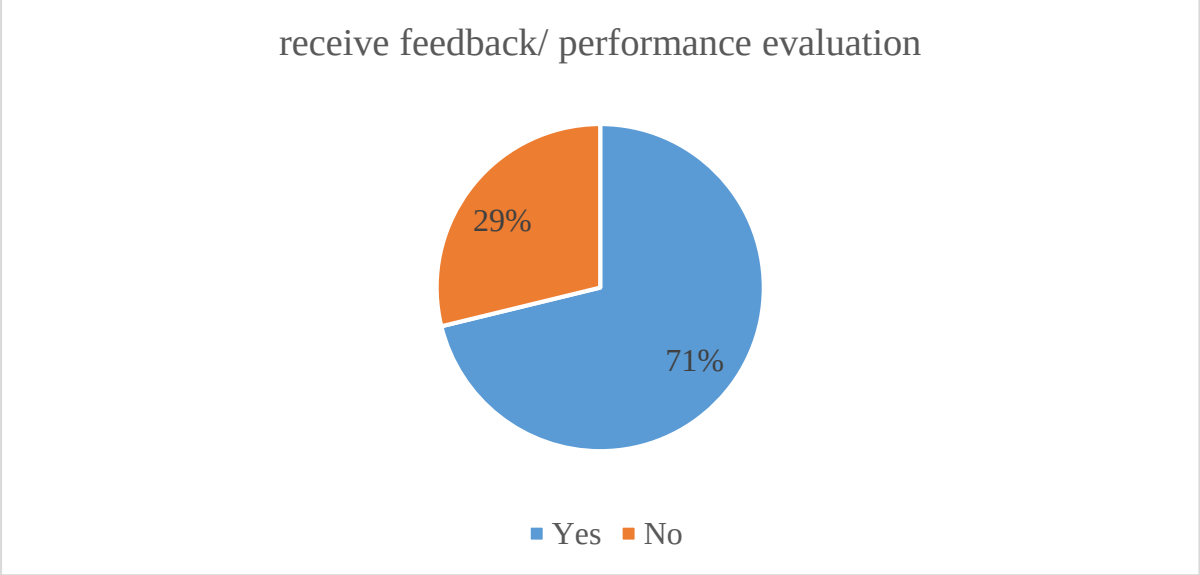

Figure 16: Receive feedback/performance evaluation

Rate clarity of instruction for operating equipment

The pie chart represents responses to a statement regarding rate clarity of instruction for operating equipment. The participants were asked to indicate their level of very clear or unclear with the statement. The chart shows that 10% of the participants are very clear with the statement, 40% of the participants are unclear with the statement and 50% of the participants are somewhat clear with the importance of instruction provided for operating equipment. It shows that the percentage of very clear than other that means they aren’t very clear about clarity of instruction provided for operating equipment in their organization.

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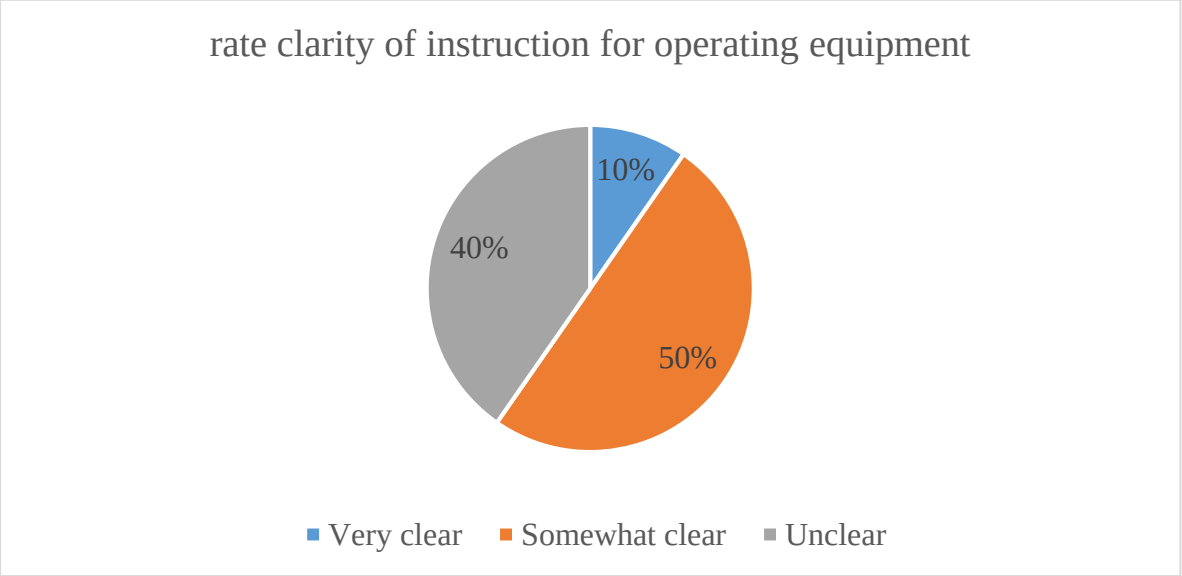

Figure 17: rate clarity of instruction for operating equipment

Guideline for the disposing of old and damaged equipment

The responses to the question, "Are there any specific guidelines for the disposing of old or damaged equipment?" It is separated into two portions that fit within the two types of responses. 77% of the respondents, represented by the larger section, indicated that they have guidelines for the disposing of old and damaged equipment. This powerful majority implies that they have good disposing of old and damaged equipment. 23% of the respondents, represented by smaller section and claim that they don't have any guideline for the disposing of old and damaged equipment. It shows that they have not disposing of old and damaged equipment.

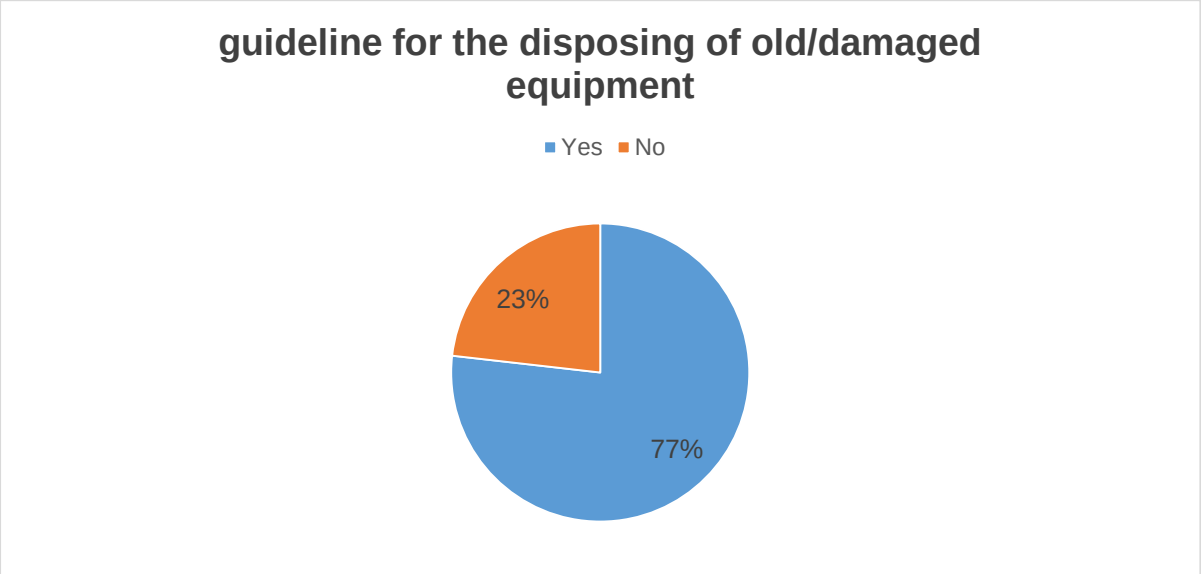

Figure 18: guideline for disposing off old/damaged equipment

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Confident in troubleshooting minor equipment issues

The pie chart shows about " How confident do you feel in troubleshooting minor equipment issues?" 11% of the respondents very confident with the statement that shows the they had not feel troubleshooting minor equipment issues. 36% of the respondents not confident with the statement, indicating that they don't think its vital to troubleshooting minor equipment. 53% of the respondents somewhat confident in confidential, problem oh handling an equipment in the organization.

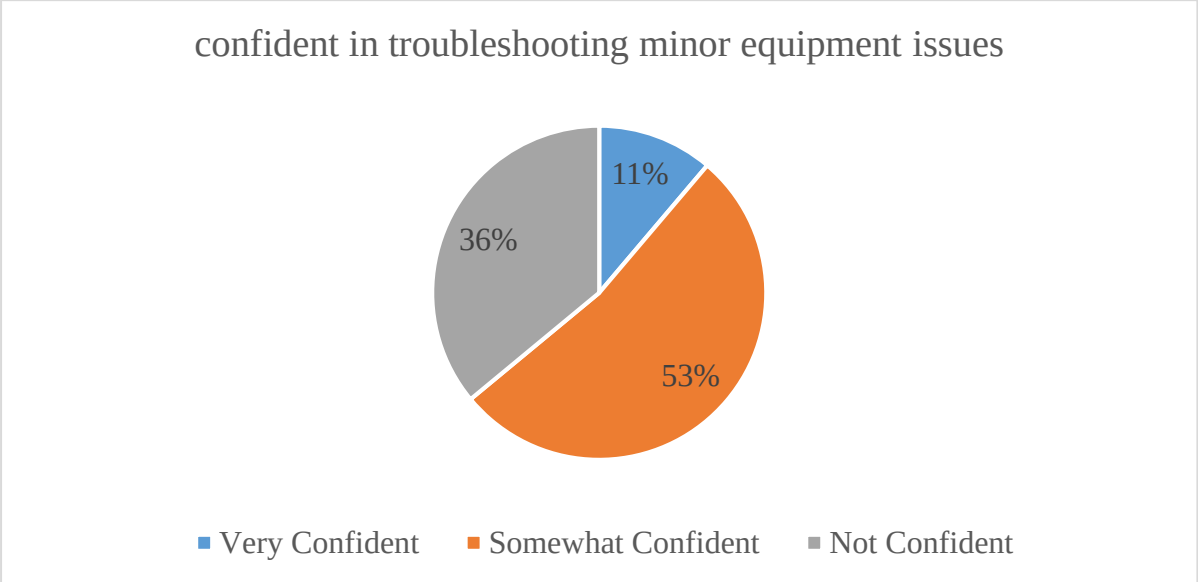

Figure 19: Confident in troubleshooting minor equipment issues

Participated in training and program related to equipment emergencies

The pie chart shows the responses to the question "Have you even participated in training and program related to equipment emergencies?" The "Yes" and "No" responses categories are represented by the chart's two parts. The respondents who said "Yes" to have an training and program in their organization are represented by larger section, which take up 66% of the chart. This shows that the higher participated are get the training program in emergency. The respondents who said, "No" to have a training and program in their organization are represented by smaller section, which take up 34% of the chart. This shows that they have not taken training program in emergency.

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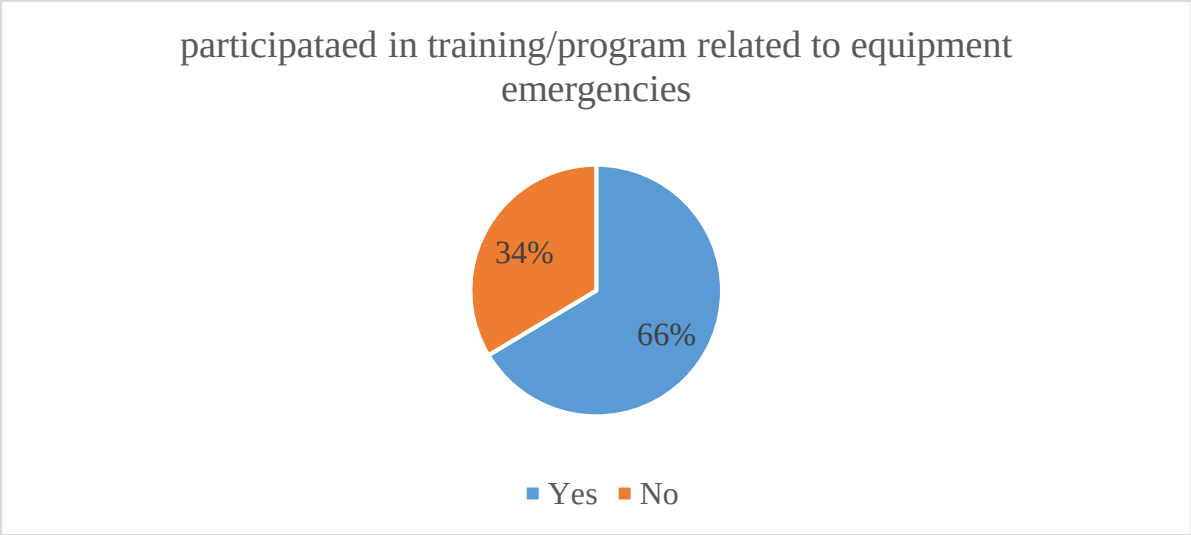

Figure 20: Participated in training related to equipment emergencies

Conclusion

This study aimed to determine equipment handling practices in different hospitality industries. For the investigation, hypotheses was developed: Employees and supervisors in the hospitality industries are unaware of the methods for handling equipment. A key component of operational excellence in the hospitality industry is equipment handling. It encompasses meticulous planning, systematic organization, and proactive maintenance to ensure that all necessary tools and resources are readily available and in optimal condition. Establishments can optimize productivity and minimize downtime by streamlining processes from procurement to distribution through the implementation of robust logistics and the maintenance of accurate inventory systems. Ongoing staff training is equally important for fostering a culture of safety and equipment proficiency, preventing accidents, and fostering a secure work environment. The need for adaptability and prompt equipment deployment during peak times or special events highlights the industry's need for readiness and flexibility. Similar, adopting sustainable practices like using energy efficient equipment and managing garbage responsibly aligns with environmental aims while also saving money and improving brand reputation. Ultimately, hospitality industries may maintain excellent service standards, surpass visitor expectations, and maintain long term success in a cutthroat industry by incorporating these ideas into their daily operations.

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