

**6th UNDERGRADUATE  
SEMINAR ON BUILT  
ENVIRONMENT  
AND TECHNOLOGY  
(USBET) 2023**

**SUSTAINABLE BUILT  
ENVIRONMENT**

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# e-Proceeding

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# A STUDY ON STUDENT SATISFACTION IN RELATION TO BUILDING MAINTENANCE PRACTICE AT A RESIDENTIAL COLLEGE

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## ABSTRACT

*The aim of this study is to analyse the maintenance management practices at student hostel. A number of studies have investigated the maintenance management of buildings, however, most of the studies have observed maintenance management procedures that were corrective and condition-based. Although this research is specifically proposed for university buildings, however, many public and private sector institutions face similar maintenance management problems. Therefore, this research has broader applications. This research emerged from the need for an alternative building maintenance management system that reflects current thinking on the efficient and effective use of maintenance resources. The first approach used in this study is a primary source, which is a questionnaire survey. The questionnaire will be in the form of a Google Form, and the link will be circulated via media platforms such as Email and WhatsApp, with clear and straightforward questions. The researcher has made some small changes to the questionnaires based on the study's research purpose and research question. The researcher will record the replies as samples of data collecting based on the answers supplied later in the findings. It was found that the implementation of an effective maintenance management system is crucial for the smooth functioning and upkeep of student hostels. This study on student satisfaction with hostel maintenance management has provided valuable insights into the perceptions and experiences of students regarding the maintenance practices in their hostels. Through careful analysis of the data, several key findings have emerged, contributing to our understanding of this important area.*

**Keywords:** *maintenance, hostel, student, satisfaction, universities*

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## INTRODUCTION

Building maintenance is becoming more and more important, as evidenced by the rise in awareness, the inclusion of this topic as a theme in several significant national conferences, the establishment of postgraduate programmes in maintenance management, the sizeable amount of maintenance research conducted by government agencies and universities, in addition to the important work done by the top professional organizations associated with the building industry. The majority of buildings are built with the incorrect expectation that they will last at least 60 years or longer. For a structure to function at its best over the course of its life, maintenance is necessary.

On the other hand, management is the process of effectively and efficiently achieving organisational goals through the planning, organising, directing, and control of organisational resources (Berk and Berk, 1993). In order to maximise returns on investment, maintenance management subsequently entails planning, directing, controlling, and organising maintenance processes and services. Overall, it has been observed that Malaysian university buildings' maintenance management is either condition-based, corrective, periodic and inspection-based. However, maintenance cannot anymore be managed primarily based on the findings of physical inspections and should not be corrected. If available resources are to be effectively utilised, maintenance management needs to reflect new ideas. The introduction of value (management) into the maintenance management of university buildings in Malaysia is a key theme of this paper. A suitable space must be created in university buildings to support and facilitate learning, teaching, and research activities.

Many university buildings have been criticised for being out of commission in academic and popular publications, according to Lateef (2017). Even though there are many different, interconnected factors that contribute to poor building performance, many of the problems are connected to the organization's structure for maintenance. Indeed, studies have shown that among other things, maintenance departments are responsible for unjustified increases in maintenance costs, low user satisfaction, and growing maintenance backlogs. The study identifies the most common defect and problem face at hostel. These findings provided an understanding of current information about the maintenance management of the hostel buildings.

## **Maintenance Management Issue**

Malaysia favours corrective measures that have come under fire for decreasing component reliability due to costly and frequent replacement. The list of problems and difficulties is below.

### **Planning and management**

Public universities in Malaysia have had their budgets reduced since 2015, and maintenance work has been carried out with meticulous budget planning, according to a case study by Prescilla Anak Palis (2018). Non- governmental organisations also had to deal with this problem. Lateef claims that the insufficient budget is a result of the challenges Malaysian property developers face when trying to collect maintenance fees. For Malaysian organisations, insufficient cost estimation has resulted in additional maintenance problems, such as the inability to carry out planned maintenance, provide development training for staff skill improvement, and adopt technology to enhance maintenance work. This discovery explains why corrective and budget-focused maintenance strategies are frequently mentioned in the literature as the preferred method in Malaysia. Khalid (2019) assert that the absence of maintenance guidelines during the design phase has a serious negative impact on future building management. Similar to this, Lateef (2011) claimed that shortcomings in practises might result from the way in which policies are put forth, comprehended, or applied. The selection of the procurement strategy is made by the organisation.

### **Staff and competency**

According to a Malaysian study on sports facility maintenance, insufficient maintenance staff and a lack of experience forced the work to be limited to housekeeping and routine maintenance tasks. In addition, the lack of maintenance expertise led to an incomplete assessment report and an over-budget, creating a significant backlog in maintenance. Additionally, the high workload and inadequate staffing will demotivate the maintenance staff. An oversight in the maintenance report submission that demonstrates a poor attitude toward the job's responsibilities was found by (Ali, 2019). When maintenance is not properly supervised, time and money are lost, the quality of the work suffers, and the safety of the building's occupants is put in danger. In light of this, Alshehri (2015) highlighted the supervision role as the maintenance department's most important task to complete.

## **Hostel Maintenance Problem**

Hostels are typically offered by universities to support students' wellbeing as well as their living and learning experiences. However, there are a number of difficulties that hostel managers typically face that limit their productivity.

### **Non-specific complaint**

The complainant used his or her general perception to interpret the defect information. For instance, the report mentioned that Block A had a broken pipe valve. However, the technician's inspection revealed that the real problem was a leaky pipe (Yuseni, 2019).

### **Time Gap of Building Repairs**

The technician had to inspect the defect at the site location after the customer's complaint failed to identify the building flaws. This impacted how long it took to carry out maintenance planning (Yuseni, 2019).

### **Limited budgets**

The upgrade of these building facilities at the universities was the cause of the budget deficit. Additionally, the conventional method of using an unspecified database result in report oversight for maintenance planning. The lack of specific information regarding the customer complaint made it challenging for the maintenance management staff to determine the budget amount for the specific facility (Yuseni, 2019).

## **METHODOLOGY**

The purpose of this method is the commonly used and straightforward option for analyzing quantitative data. To achieve the stated objectives of this research, the following has been conducted. The first approach used in this study is a primary source, which is a questionnaire survey. The questionnaire will be in the form of a Google Form, and the link will be circulated via media platforms such as Email and WhatsApp, with clear and straightforward questions. A questionnaire was chosen to be the research instrument for collecting information from the respondents. Rather than interviewing them face to face, this strategy proved more effective. This questionnaire was distributed to random respondents in the scope of inhouse and outsource in maintenance department. The questionnaire was designed in English and Malay language. The use of the translated version improved the readability of the respondents in the questionnaire. The type of questionnaire of this research use Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree) and dichotomous scale (Yes and No) and multiple question.

### **Literature Research**

Literature review is a research method related to the identification and evaluation that may be referred those responsible from researchers, academics and practitioners who have been recorded.



## Site Observation

The observation inspection is conducted to obtain an overview of the information on the structure based on literature review.

## Case Study

This study will concentrate on maintenance management practice at student hostel. This study will show how a university organization manages building maintenance and engineering service maintenance.



**Figure 2.3.1: Inside of Male Hostel**



**Figure 2.3.2: Side View of Female Hostel**

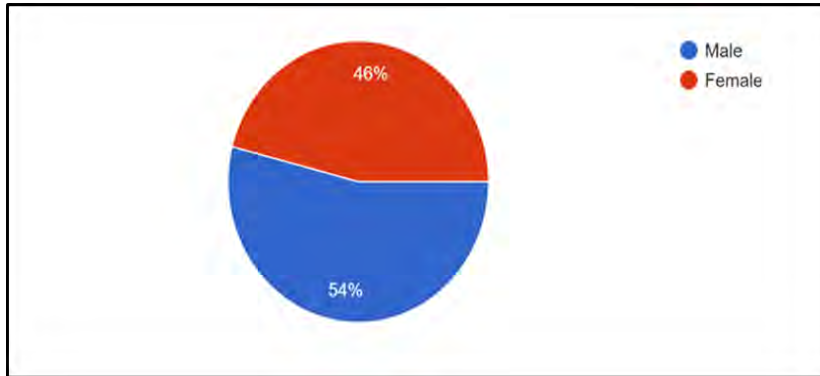
## Target respondent

According to (Diego, 2015), a minimum response rate of 50 respondents within sample size was required for research to be regarded as participating: the overall student response rate was computed using only students from schools with at least 50 student response-rate.

## ANALYSIS

This chapter contains the statistical analysis of the data and the results interpretation. Demographic information is presented after a respondent's background in the chapter. For each item and variable in the primary data analysis, descriptive analyses were run.

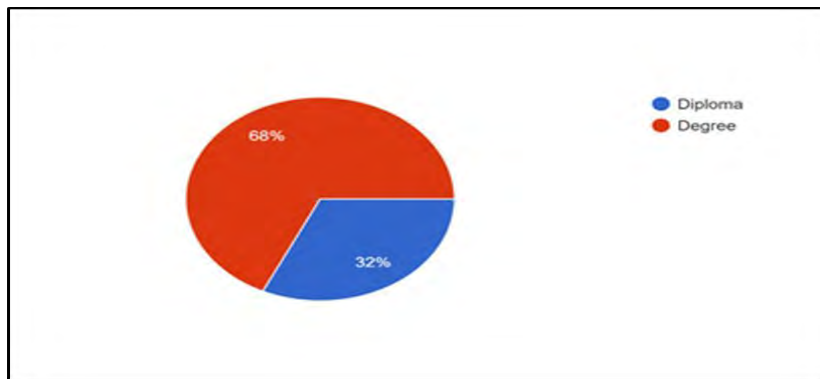
## Gender



**Figure 1: Gender**

Figure 1 shows the total number of respondents by gender. Shows above that most gender respondents are male (54%) with a total of 27 respondents. While for the remaining percentage of respondents are female (46%) with a total of 23 respondents. This case research shown that most of the respondents are male respondents.

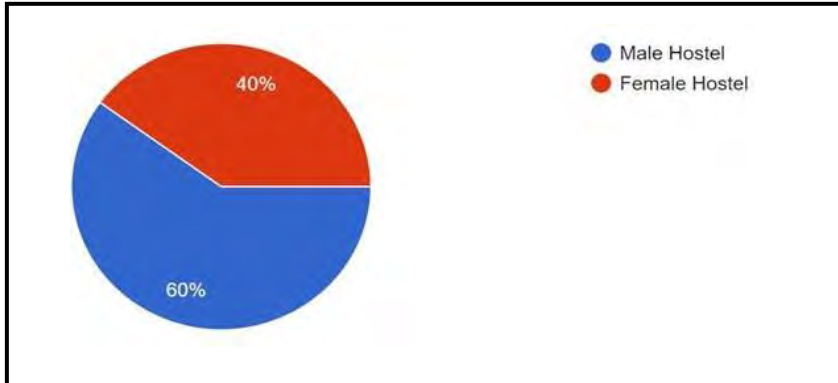
## Level of study



**Figure 2: Level Study**

Figure 2 shows the total number of respondent level of study. Most of respondent level of study are degree (68%) with a total of 34 respondents. Second highest is diploma (32%) with a total of 16 respondents, while there are no respondent from master and PhD.

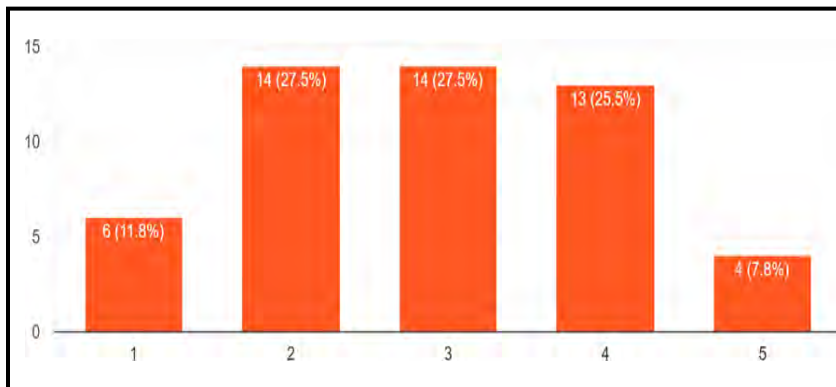
### Hostel



**Figure 3: Hostel**

Figure 3 shows the total type of hostel respondent. The highest is male hostel (60%) with a total of 30 respondents and the rest is female hostel (40%) with a total of 20 respondents.

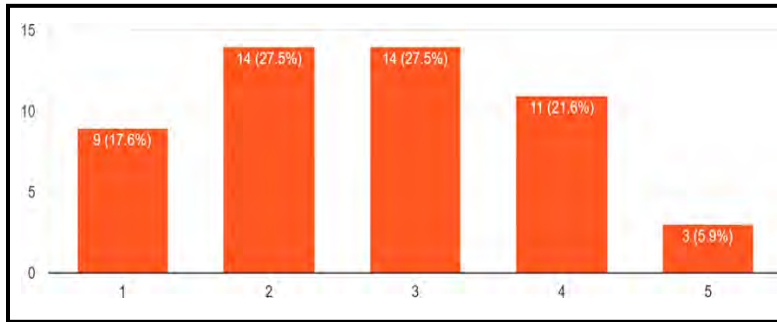
### Furniture Condition



**Figure 4: Furniture**

Figure 4 shows the result of Section B question 1. The highest answer is 2 (dissatisfied) and 3 (neutral) with 27.5% with a total of each 14 respondents. The lowest answer is 5 (strongly satisfied 7.8%) with a total of 4 respondents.

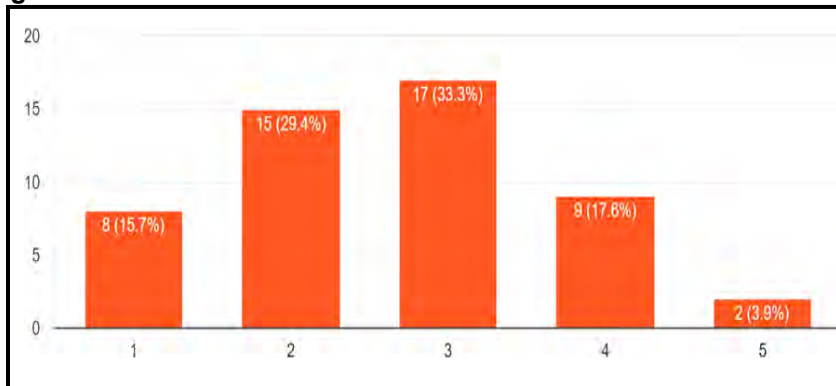
## Door



**Figure 5: Door**

Figure 5 shows the result of Section B question 2. The highest answer are 2 (dissatisfied) and 3 (neutral) with 27.5% with a total of each 14 respondents. The lowest answer is 5 (strongly satisfied 5.9%) with a total of 3 respondents.

## Pipefitting

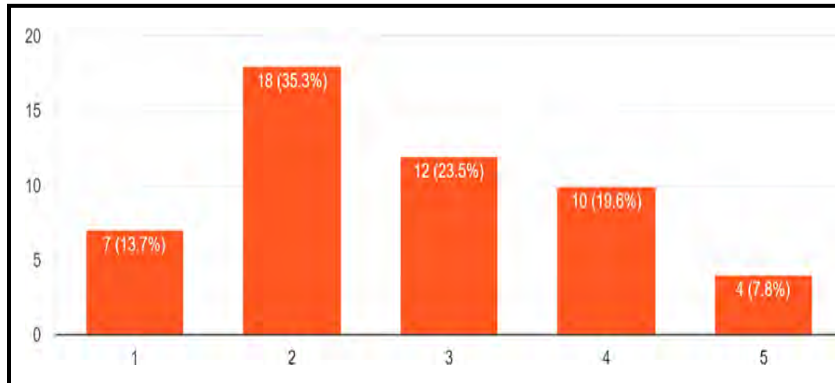


**Figure 6: Door**

Figure 6 shows the result of Section B Question 3. The highest answer is 3 (neutral 33.3%) with a total of 17 respondents. The second highest is 2 (unsatisfied 29.4%) with a total 15 respondents. The lowest score is 5 (satisfied 3.9%) with a total of 2 respondents.



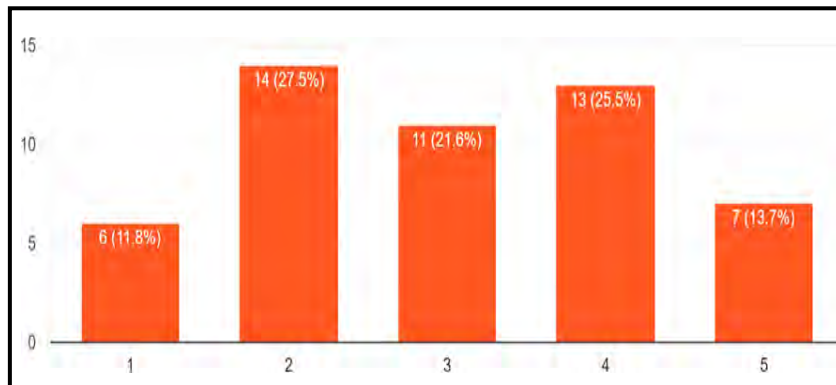
## Fan



**Figure 7: Fan**

Figure 7 shows the result of Section B Question 4. The highest score is 2 (unsatisfied 35.3%) with a total of 18 respondents. For 1 (strongly unsatisfied 13.7%) with a total of 7 respondents. The lowest score is 5 (strongly satisfied 7.8%) with a total of 4 respondents.

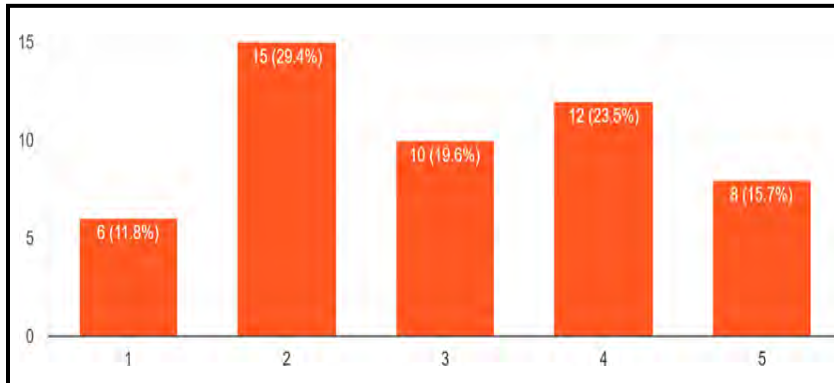
## Lamp



**Figure 8: Lamp**

Figure 8 shows the result of Section B Question 5. The highest score is 2 (unsatisfied 27.5%) with a total of 14 respondents. The second highest score is 4 (satisfied 25.5%) with a total of 13 respondents. The lowest score is 1 (strongly unsatisfied 11.8%) with a total of 6 respondents.

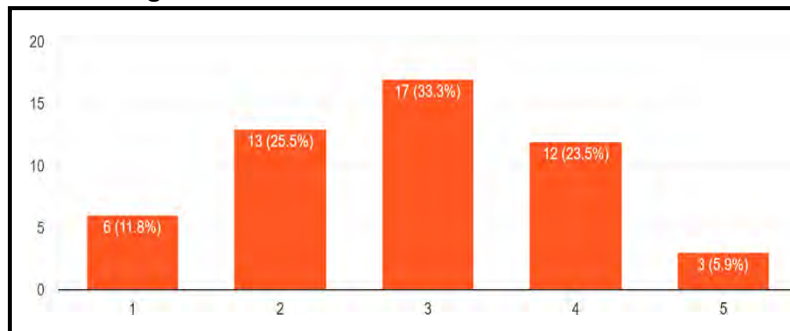
## Building Cleaning



**Figure 9: Cleaner**

Figure 9 shows the result for Section B Question 9. The highest is 2 (unsatisfied 29.4%) with a total of 15 respondents. The second highest score is 4 (satisfied 23.5%) with a total of 12 respondents and the lowest is 1 (strongly unsatisfied 11.8%) with a total of 6 respondents.

## Maintenance Management



**Figure 10: Maintenance Management**

Figure 10 shows the result for Section C Question 8. The highest is 2 (unsatisfied 31.4%) with a total of 16 respondents. The second highest score are 3 (neutral 27.5%) with a total of 14 respondents and the lowest is 5 (strongly satisfied 7.8%) with a total of 4 respondents.

## Discussion Analysis

The total number of respondents for this paper questionnaire is 50 people. The total target respondents are 50 and it achieved this paper target's respondent. Most of the respondents are male and their ages are 19 to 27 years old. The level of study for most of the respondents is Degree from semester 6. Most respondents from the questionnaire are from male hostel.

The furniture such as table, door, window, fan, lamp and pipe fitting in toilet, majority of the respondent are unsatisfied with it due to the age of the furniture that are too old to use and the issue to this unsatisfied is wear and tear. While the electric supply and socket that are provided for hostel is enough for students. With the lack of landscaping and building cleaning works, the students have unsatisfactory in their opinion. Otherwise for rubbish removal, most of the students are satisfied with the regular rubbish removal because the bin will always full due to many students stay in the hostel.

The students unsatisfied with the response from management about their complaint because of the late response. For the repairing works, the result is low quality and the clean up after work is not done well by the technician. The management have a poor periodic maintenance and that results most students unsatisfied with the issue that will affect the problem become more serious.

## **CONCLUSION**

In conclusion, this study on maintenance management practices at student hostels has shed light on various important aspects of the topic. Through careful analysis and examination of the data, several key findings have emerged. Firstly, it was found that the implementation of an effective maintenance management system is crucial for the smooth functioning and upkeep of student hostels. The study revealed that hostels with well-defined maintenance strategies and protocols experienced fewer maintenance issues and had a higher level of satisfaction among residents. Secondly, the study highlighted the importance of proactive maintenance practices. By conducting regular inspections, identifying potential maintenance issues, and addressing them promptly, hostel management can prevent larger problems from arising and ensure a safe and comfortable living environment for students.

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Tarikh : 20 Januari 2023

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Timbalan Ketua Pustakawan

*nar*

*Setuju.*

*27.1.2023*

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