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PROCEEDINGS OF JOHOR INTERNATIONAL INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2024 (JIIICaS 2024)



*“Flourish and Nurturing Sustainable
Innovation for a Prosperous Nation”*

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Preface

In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.

This e-book compiles the extended abstracts that submitted to Johor International Innovation Invention Competition and Symposium 2024 (JIIICaS2024), where JIIICaS2024 is a virtual platform for all creative minds to share and present their invention and innovation. Each abstract gives a brief background on the innovation or project.

We hope that this e-book will help the readers to get to know the innovation done by the students and get some ideas to develop future innovation products.

Foreword Rector



Assalamualaikum warahmatullahi Wabarakatuh,
Salam Sejahtera, Salam Malaysia MADANI and
Salam UiTM Dihatiku.

In the name of Allah, the Most Gracious, the Most
Merciful.

It is a great honor to welcome you to the Johor
International Innovation, Invention, Competition, and
Symposium 2024 (JIIICaS 2024). This event

connects various disciplines, focusing on education and engaging educators,
students, researchers, and innovators from all walks of life.

Innovation is not just about ideas; it demands perseverance, creativity, and
determination to turn those ideas into reality. The remarkable projects
showcased today highlight the dedication and spirit of all participants.
Initiatives like this not only explore new technologies but also cultivate skills
and leadership among our youth. At Universiti Teknologi MARA (UiTM) Johor
Branch, we are fully committed to fostering a dynamic culture of innovation,
promoting the commercialization of new products, and encouraging
meaningful collaborations with industry and society.

As we celebrate this event, I would like to extend my heartfelt gratitude to all
sponsors, judges, the College of Computing, Informatics and Mathematics,
UiTM Pasir Gudang Campus as the event organizer, as well as to the
researchers and participants for their hard work in making this event a
success. Let us continue striving for innovation and excellence. May the
ideas presented today inspire us and lay the groundwork for future
achievements.

Thank you.

Associate Professor Dr. Saunah Zainon
Rector
Universiti Teknologi MARA (UiTM)
Johor Branch

(A-PP023) ADDRESSING FACILITY CHALLENGES AMONG STUDENTS AT UITM PASIR GUDANG

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ABSTRACT

This research addresses the growing concern of facility issues at UiTM Pasir Gudang, which significantly impact the overall educational experience. Despite the campuses well-intentioned design, it faces infrastructural and maintenance challenges, such as insufficient classroom space, crowded lecture halls, and limited access to libraries and study areas. Frequent breakdowns of essential utilities like air conditioning and Wi-Fi disrupt the learning environment, affecting students' focus and academic performance. Additionally, the lack of adequate and well-maintained common areas for group studies and extracurricular activities leads to overcrowding and limited opportunities for collaborative learning. The research emphasizes that improving these facility issues through better maintenance, infrastructure upgrades, and increased resources is crucial for enhancing the student experience. By prioritizing these improvements and gathering regular student feedback, UiTM Pasir Gudang can create a more supportive and conducive learning environment that fosters academic excellence and personal growth.

Keywords: facilities, educational experience, maintenance issue, infrastructure

1.0 INTRODUCTION

Facility issues among students at UiTM Pasir Gudang have become a growing concern, impacting the overall educational experience. The campus, though well-intentioned in its design and facilities, faces several infrastructural and maintenance challenges. These issues include not enough classroom space, crowded lecture halls, and limited access to libraries and study areas. One of the primary concerns is the frequent breakdown of essential utilities, such as air conditioning and Wi-Fi, which are crucial for a good learning environment. Students often report that these disruptions affect their ability to focus and participate in lectures, leading to a decline in academic performance. Furthermore, the lack of sufficient and well-maintained common areas for group studies and extracurricular activities has led to overcrowding and reduced opportunities for collaborative learning.

Fixing these facility issues is crucial for improving the student experience at UiTM Pasir Gudang. Better maintenance, investing in infrastructure upgrades, and providing more resources can greatly help solve these problems. By focusing on these improvements, the university can create a better learning environment that supports students' academic and personal growth. Universiti Teknologi MARA (UiTM) Pasir Gudang faces several facilities-related issues that affect students' experiences and academic

performance. These problems include poorly maintained hostels and classrooms, not enough library resources, outdated laboratory equipment, and poor facilities. Additionally, students often deal with unreliable internet connectivity and safety concerns from poorly maintained infrastructure. These issues can distract students, reduce academic performance, and increase stress levels. Previous research indicates that the quality of campus facilities is directly linked to student satisfaction and success. Addressing these problems is essential for improving the overall student experience at UiTM Pasir Gudang.

2.0 OBJECTIVE

The following are the overall objectives of this study:

- To study the frequency of facility, use among students
- To ensure a conducive learning environment that supports academic excellence, student well-being, and overall campus satisfaction
- To solve the problem about facility issues among students
- Identify any barriers or challenges that may affect the frequency of facility use among students

3.0 METHODOLOGY

3.1 Description of data

Population	The term population in this research refers to all UiTM Pasir Gudang students.
Sample	The sample of this survey consists of 85 students from UiTM Pasir Gudang.
Sampling Technique	We choose Convenient Sampling Technique for our research because it is more efficient and flexible since it has a smaller sample size.

3.2 Method of data analysis

Table 1 : Summary of methodology Objectives

Objectives	Variables	Methodology
1. To study the frequency of students having issue facilities	Frequency of students having issue facilities	Graph: Pie Chart
2. To identify facility that need improvement	Factor to improve facility at UiTM pasir Gudang	Graph: Pie Chart

3. To observe highest frequency of facility breakdowns location	Location of highest frequency of facility breakdowns	Graph: Bar Chart
4. To identify satisfaction level of overall cleanliness of the campus facilities	Satisfaction level of overall cleanliness of the campus facilities	Graph: Bar Chart

4.0 RESULTS

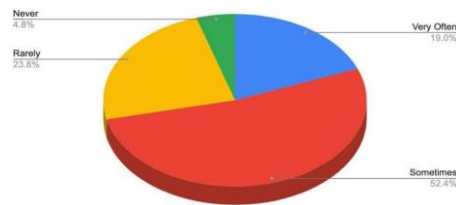


Figure 1 : Pie Chart of having issues with the facility

Figure above show the distribution data for students that having issues with the availability of equipment. Most students, which are 44 students believe that they sometimes having issues with the facility. Only 4 student that respond they never having any problem with facility provided.

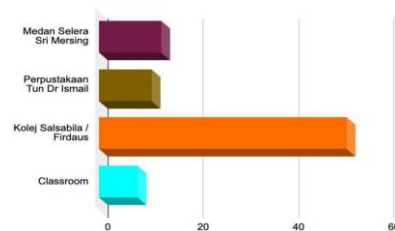


Figure 2 : Bar chart of frequency of facility breakdowns

Figure above show the distribution data for students who receive that experiences the highest frequency of facility breakdowns and issues. Majority of students (61.9%) of respondents experienced the highest frequency of facility breakdowns and issues. The lowest frequency of facility breakdowns and issues is at classroom which is (9.5%).

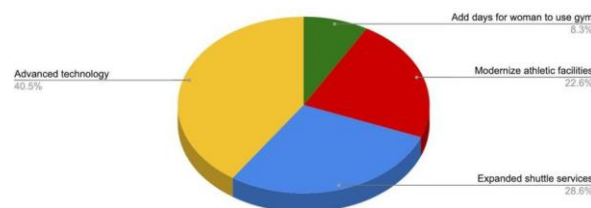


Figure 3 :Pie chart of facility improvement that would be benefit for student

Figure above show the distribution data for students think facility improvement that would be benefit for student. Most students, believe that the advanced technology is

the best facility improvement that would benefit them. Whereas other 24 students think that expanded shuttle services will be the best facility improvement.

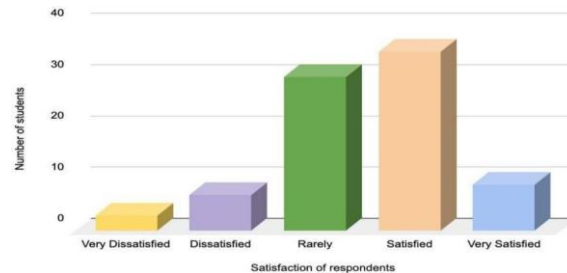


Figure 4 : Vertical Bar Chart of satisfied level of overall cleanliness

Figure above display the distribution data for students who are satisfied with the overall cleanliness of the campus facilities. This data distribution mode is satisfied, the number of students is the highest ranking which is 35 out of 84 respondents. The lowest ranking of respondents is 3 students who answer for very dissatisfied with the overall cleanliness of the campus facilities.

5.0 CONCLUSION

Based on our first objective, to study the students that having issues with the availability of equipment. Most students believe that they sometimes having issues with the facility. One indication of a strong need for better weather protection and accessibility on campus is the respondents' preference for covered pathways. This suggests that infrastructure is important for improving students' comfort and facility satisfaction. The whole campus experience may be considerably enhanced by taking these preferences into consideration.

Next, the second objective is students who experiences the highest frequency of facility breakdowns and issues. Majority of students (61.9%) of respondents experienced the highest frequency of facility breakdowns and issues. Lack of proper equipment or resources in labs and other specialised facilities causes many students to struggle, which lowers the standard of instruction and learning outcomes. To increase student satisfaction and guarantee fair access to educational resources, these problems must be resolved.

The third objective, is about student opinion on improvement of facility that would be benefit for student. Most students, believe that the advanced technology is the best facility improvement that would benefit them. Adaptive learning technologies can tailor educational content to individual students' needs, allowing them to learn at their own pace and style. This helps in addressing diverse learning abilities and improving overall comprehension. The last objective is focus on satisfaction level of cleanliness around campus. It is found out although students did not satisfied with facility provided at campus, they satisfied with the cleanliness around campus where 42% agree that campus are in good condition in term of their cleanliness.

In conclusion, dealing with facilities-related issues in UiTM Pasir Gudang is a complex process that includes a number of elements that are essential to the general prosperity and welfare of the academic community. UiTM Pasir Gudang needs to protect the physical integrity of their campuses and foster study, research, and community involvement by giving infrastructure maintenance, renovations, and expansions a priority. Modernized buildings with cutting-edge amenities and resources improve students' educational experiences by giving them the resources and surroundings they need to succeed both personally and academically.