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An Assessment of Cleanliness Level from Service Level Agreement and User's Perception in Universiti Tun Hussein Onn Malaysia

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Abstract: Cleanliness in the building creates a perfect living, learning and working environment. To achieve high standards cleanliness, a facilities manager needs to have a good service level agreement (SLA) between the service provider and service recipient. In the university context, an increased number of students has created challenges for the cleaning service provider to provide quality services. On top of that, the facilities management (FM) department has to be sensitive with the budgetary and cost. Hence, balancing between costs, services and meeting the user expectations are the most important elements in managing cleanliness for university buildings. Aim of this research is to assess the cleanliness level from the SLA and user perception. Two objectives were set, first is to identify the elements used in the SLA for building cleaning in the university and second is to analyse the effectiveness of current SLA with users' perception on the cleanliness level. This study used qualitative and quantitative approaches. Content analysis and descriptive statistics were used for analysing the data. SLA for building cleaning documents were reviewed and 100 respondents were involved in this study. There are eighteen elements in the SLA documents. The result shows that current SLA is still effective. However, there are certain areas in and off the building that need to be improved such as the lecture room, parking lot and drains in terms of cleanliness. Furthermore, the decision to reduce the cost for refill tissues and hand soaps in the toilets does not satisfy the respondents. In conclusion, both of the outcomes contribute to the improvement of SLA for cleaning services as well as increase the quality of cleanliness level in UTHM.

Keywords: Cleanliness, Service level agreement, User perception

1. Introduction

Clean facilities are vital to the health and satisfaction of their occupant (Klungseth & Blakstad, 2016). The practical value of cleaning is widely accepted either in a healthcare environment or property management. Cleaning is one of the support service in facilities management that aims at improving and maintaining the overall life cycle of the facility and at the same time provides human support for an effective working environment to the occupier of the building (Kyengo, 2007). Facility manager needs to understand the core business of the building in order to give good cleaning services to its users (Klungseth & Emanuel, 2013). To ensure that the cleaning services meet appropriate quality standards and add value to the core business, facility managers must have ample knowledge related to the cleaning services industry (Klungseth & Blakstad, 2016).

As mentioned by Paul (2014), a clean building will represent a professional image of a tidy, organized, productive and successful business. Paul (2014) added that appearance is one of the major elements that differ one building from another which brings added value. Cleanliness is one of the key drivers of overall customer satisfaction (Van, Madhav, & Ahmed, 2018). Furthermore, cleanliness has been identified as an important criterion in judging service quality. Barber, Goodman, & Goh (2011) state that the cleanliness of the open or public spaces such as parking lot, hotel lobby and the guest rooms can significantly influence on the customer perceptions of service quality.

Furthermore, the cleanliness level may affect people emotions where lack of cleanliness can give distraction to the students learning environment (Campbell & Bigger, 2008). Amstuz (2001) found that out of 1481 students, 78 percent of the students reported that the lack of cleanliness has an impact on their health such as allergies, spread of germs, increases of bug and can promote high-stress levels towards them. The research also revealed that cleanliness ranked as the fourth most important building element to impact the students' personal learning after noise, air temperature and lightning. In addition, the research findings by Kiplagat, Khamasi, & Jelimo (2017) also revealed that there is a relationship between levels of cleanliness and academic achievement. All elementary school-age children, teachers and parents are all agreed that a clean and well-maintained building is one of the main attributes to a welcoming environment in their school (Maxwell, 2000). Student attendance is a significant variable in predicting academic scores on standardized tests. Poor building conditions and inadequate custodial service have shown correlation to low student attendance (Campbell & Bigger, 2008).

Cleaners work in places where people congregate such as office buildings, hospitals, stores, apartment houses and hotels. Their work hours are usually in the morning, during lunch periods and late in the evening to avoid interfering with the activities of others (Rupesh & Shrawan, 2008). General cleaning services for instance sweeping and mopping floor, wall and mirror cleaning and waste collection involve repetitive works every day in order to maintain the cleanliness level at a particular building (Chauhan & Patel, 2015). Cleaning work may also include additional tasks such as lifting or moving furniture or equipment (Rupesh & Shrawan, 2008). Furthermore, cleaning tasks involve various awkward postures like leaning, bending, twisting, stooping and arm raised which is done repeatedly. This is why health issues and musculoskeletal disorders among the cleaners have been reported from various countries especially in the United States, Australia, Europe and the United Kingdom.

The cleaning activities consists of numerous attributes specifically the days of the week when the rooms need to be cleaned, cleaning tasks for each day and the time available for each task. The days of the week when the rooms need to be cleaned and cleaning tasks for each day depend on the facility manager's assessment of the cleaning requirements for each room type. As an illustration, a busy classroom in an academic facility may need more regular cleaning than an infrequently used conference room. Chauhan & Patel (2015) found that 80-100% of cleaners perform each cleaning activity for at least 5 to 7 times per day per shift. However, in malls A, B and C, some tasks like cleaning the washroom are performed 8-10 times per day because the number of people coming to these malls and using washroom is higher compared to the other malls in Mumbai City, India. Alwadood, Ayub & Razali (2010) also mentioned in his research that the volume of shoppers at the market is high between 10.00

am to 1.00 pm. The number of people starts to decrease after 1.00 pm leaving behind a large volume of rubbish. Thus, 1.00 pm to 3 pm is considered as the peak hour for cleaners.

1.2 Problem Statements

Cleaning is one of the most expensive services when operating a building (Klungseth & Blakstad, 2016). Similarly, Johanne Klungseth & Olof Emanuel Olsson (2013) stated that cleaning represents a major part of facilities management expenditure. Most building owners and facility managers view cleaning as a cost rather than investments (Paul, 2014). In addition, Stoy & Johrendt (2008) found that cleaning services are widely known as being cost-intensive, predominantly manual services which are usually being outsourced or downsized. Problem arise when companies choose to outsource cleaning where low prices become decisive for the selection of the cleaning company without comparing the quality of the cleaning services. This may result in a deterioration of the cleanliness of the inner environment of the organization (Horrevorts, Van Ophem, & Terpstra, 2018).

The study conducted by Kiplagat *et al.* (2017) show that majority of the respondents agree that lecture halls and campus area were not regularly cleaned and were not conducted at an appropriate time in the University of Eldoret, Kenya. A university needs to consider the cleanliness of its facilities as it is one of the factors which will affect the student's academic achievements. Kamaruddin, Zainal, & Aminuddin (2009) propose that academic achievement does not only determined by intelligence but it also associated with others component of learning environment. It was also found out that dirty buildings will stress them out. The tidier the building, the more it will be conducive for study and work (Nivro, 2014).

With 15, 882 numbers students and 2,705 numbers of staff (as in April 2016) in Universiti Tun Hussein Onn Malaysia (UTHM), our university must also take initiatives to make a better learning environment especially when the students' enrollment kept on increasing throughout the year. Previous study by Kiplagat *et al.*, (2017) also concluded that the management of universities should focus to improve the learning environment and necessary facilities in the university since students' enrollment kept increasing each year at the University of Eldoret, Kenya.

1.3 Research Questions

- (i) What are the elements involved in the Service Level Agreement (SLA)?
- (ii) What are the relationship between the users' perception, cleanliness level and elements in SLA?

1.4 Research Objectives

- (i) To identify the elements in Service Level Agreement (SLA) in the University.
- (ii) To analyze the effectiveness of current SLA with users' perception for the cleanliness level at the faculty.

1.5 Significance of the Study

School buildings and university campuses are also subject to daily wear and tear. Hundreds and sometimes thousands of students, staffs and occasionally visitors come to the university every day. Institutions of higher learning education play a vital role in ensuring that their students were provided with the best environment for the learning process. It is important to keep and maintain a clean and tidy learning environment for several reasons. Keeping university buildings, floors and facilities clean is crucial for the health of the occupants and the positive image of the institution. University is designed for teaching and learning and thus clean and nice-looking facilities are a key component to a good learning environment. Clean lecture rooms and other learning spaces also can help to minimize the spreads of germs and at the same time helps to avoid the offending smells from rubbish or toilet usage.

1.6 Scope of the Study

The area in UTHM is divided into several zones to facilitate the management and maintenance of the UTHM buildings. Most of the faculty buildings in UTHM is located in zone C but this research only focuses on FPTP and FKAAS. These two faculty were compared in terms of its cleanliness. The effectiveness of the current SLA was determined by the questionnaire. Faculty building is chosen because it has the most number of users which is frequent by students, lecturers and staffs compare to others buildings in Universiti Tun Hussein Onn Malaysia.

2. Literature Review

Johanne Klungseth & Olof Emanuel Olsson (2013) mentioned that cleaning is a significant support service to any type of core business and the facilities manager must understand the core business of the organization to give good cleaning services. The facility manager must have enough knowledge about the cleaning services to ensure it can meet the appropriate quality standards and add value to the core business (Klungseth & Blakstad, 2016).

Custodial workers who are hired by the institution or organization are referred to in-house cleaning. On the other hand, custodial workers who work for a cleaning contractor that has been hired to clean and maintain the facilities are referred to as outsourced cleaning (Kravitz, 2018). An in-house approach remains to deal internally with services that require skills and knowledge to serve customers better (Aishah, 2007). According to Mohamed (2013), if a service is provided in-house, a company must locate a qualified employee, train the employee, pay employee wages and benefits, provide the employee a physical workspace and also provide the required technology items.

In contrast, outsourcing involves the transfer of business support functions such as cleaning or security to external suppliers to obtain a higher level of performance at a lower cost with relatively little upheaval for the organization (McIvor, 2005). Mohamed (2013) discusses that organizations or companies choose to outsource services due to cost reduction, the potential to convert fixed costs to variable costs, insufficient time to improve in-house operations and difficulty to retain qualified staff. Meanwhile, the benefit to outsource services includes 10 to 20 percent of cost savings, service providers can improve service delivery, and service providers are better to retain and attract qualified staff and improve management of existing resources.

2.1 Cost of Cleaning Services

Most building owners and facility managers view cleaning as a cost rather than investments (Paul, 2014). Previous study shows that cleaning services have long been known as one of the most expensive costs in operational services. Estimation of cleaning costs can represent up to thirty percent of the total costs of the building (Klungseth & Blakstad, 2016). The finding is consistent with findings of past studies by Madritsch, Steixner, Ostermann, & Staudinger (2008) which estimate cleaning services to represent from nineteen to forty-nine percent of the total operational costs of buildings. Pradhan *et al.* (2017) also mentioned that cleaning costs in Norway's public buildings nearly thirty percent of their maintenance budget was for cleaning costs.

There are various factors contribute to the cost of cleaning services but Klungseth & Blakstad (2016) stress that labour and material costs are the most critical factors affecting the total costs of the cleaning services. According to Stoy & Johrendt (2008), cleaners working time depends on the specification of cleaning methods and frequencies, cleaning tools, chemicals, number of users and building designs. Several sources estimated that labour force for cleaning services accounts for 80 to 90 percent of the total cost of cleaning.

2.2 Cleanliness Level

Cleanliness has become a determinant factor toward people's choices in their everyday life due to their awareness of clean environments that serve as an assurance of healthy surroundings. Table 1 shows the summary of research findings found on how cleanliness has become a determinant factor toward people's choices in their everyday life.

Table 1: The summary of previous research findings

Authors	Research Findings
Campbell & Bigger (2008)	Cleanliness level may affect people's emotions where lack of cleanliness can give distraction to the students learning environment.
Barber & Scarcelli (2010)	The selection and willingness to return to a restaurant were based upon the cleanliness of the restaurant.
Barber, Goodman, & Goh (2011)	Cleanliness of the open or public spaces such as parking lot, hotel lobby and guest rooms can have an important influence on the customer perceptions of service quality.
Zemke, Neal, Shoemaker, & Kirsch (2015)	Cleanliness is one of the most basic expectations of hotel guests because of the existence of real risks in terms of communicable diseases, particularly in the travel industry.

2.3 Service Level Agreement

Service Level Agreement (SLA) is an agreement between the service provider and the service recipient (client or customer) by explaining the need for the services required. It needs to be negotiated and mutually agreed by both parties as it is a two-way agreement (Hiles, 2016). Goo (2010) illustrates SLA as a document that specifies the roles and responsibilities of the service recipient and the service provider in the agreements, procedures, penalties and rewards. It is also used as a management tool to assess the quality, performance and value of the services provided.

The implementation of SLA in facilities management outsourcing enables the facility manager to point out the duty that must be carried out. The establishment of SLA is to make sure that both the service providers and service recipients understand the level of services required and the conditions of financial performance. Furthermore, SLA help to reduce conflicts and any misunderstandings arise as all the responsibilities and duties of both parties are already stated clearly in the agreement (A. Mohamed, Mohammed, & Abdullah, 2015).

2.4 Service Specification

A service specification is a formal document that quantifies the minimum technical standard of service required by the client. Service specification will set out customer expectations of the quality services, minimum acceptable standards of the service, output or performance-oriented measures and the agreement between the service provider and the customer (Atkin & Brooks, 2009).

2.5 Conceptual Framework

The suggested framework for this research was based on five main components which consist of cleaning in facilities management, the costs for cleaning services, service specification, user's

perception and cleanliness level (refer to Figure 1). This research aims to study the Service Level Agreement (SLA) between UTHM and the appointed contractor. Previous study shows that the cost to outsource cleaning services represents a major part of the facilities management expenditure. Thus, the list of cost for cleaning services and the service specification in the SLA document are needed to review how UTHM specify the costs to outsource the cleaning services. In addition, this research concerns to study on the users' perception towards the cleanliness level perform by the appointed contractor. This is important in determining either the current SLA is still effective or need to be improved in the near future.

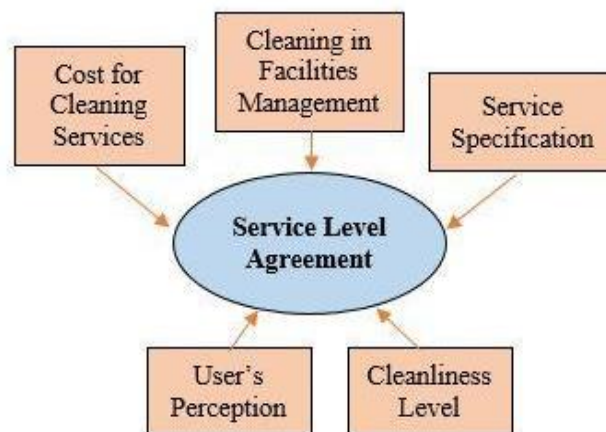


Figure 1: Conceptual framework

3. Research Methodology

This research has five main stages (refer to Figure 2). The first stages focus on determining the research title, problem statements, research questions and objectives followed by the second stage which is a literature review. In addition, the third stage concerns on how to achieve both objectives and the fourth stage concerns on how to analyze the data that has been collected. The last stage is basically about the conclusion and recommendation for this research.

3.1 Stage 1: Background

The first stage is crucial to form a research framework for this research. The issues arise are being carefully researched to form a suitable research title, research questions and research objective.

3.2 Stage 2: Literature Review

This stage is a summary of previous research related to this research. The literature review helps the researcher to justify the relevance of the proposed research together with the proposed methodology.

3.3 Stage 3: Data Collection

This research uses both qualitative and quantitative approach. The first objective is to identify the elements and list of costs in Service Level Agreements (SLA). To achieve the first objective, a document review method was conducted.

On the other hand, the second objective is to analyze the effectiveness of the current SLA for cleaning services with users' perception of the cleanliness level at the faculty. A questionnaire was distributed to 100 respondents which consist of 4th year students, academic and non-academic staffs from FKAAS and FFTP, UTHM. The questionnaire aims to analyze the effectiveness of the current SLA from users' perceptions.

3.4 Stage 4: Analysis Data

To achieve the first objective, the data collected was analyzed by using content analysis. The outcome for the first objective was the list of costs to outsource cleaning services for three different years. Meanwhile, to achieve the second objective, the data collected was analyzed by using descriptive and frequency analysis. The outcome for the second objective is students’ and staffs’ perceptions about the cleanliness level in their faculty. In conclusion, both of the expected outcomes contribute to the improvement of SLA for cleaning services as well as to increase the quality of cleanliness level in UTHM.

3.5 Stage 5: Conclusion and Recommendation

In this stage, the overall research will be concluded based on the finding of the research. Recommendation and suggestion are made to help further studies.

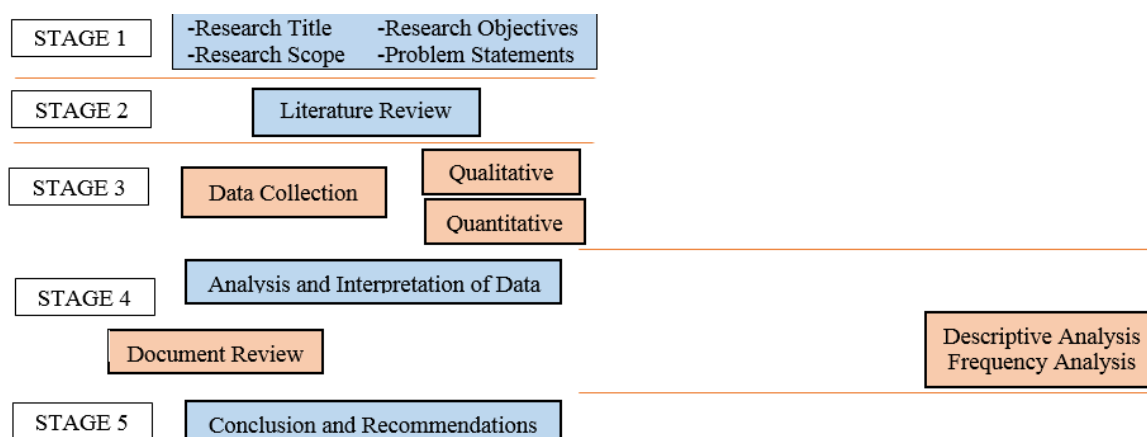


Figure 2: Research flowchart

4. Data Analysis and Results

To achieve the first objective, the researcher managed to gather three Service Level Agreement (SLA) document for Zone C UTHM from Pejabat Pembangunan Dan Pengurusan HartaBina (PPH), Universiti Tun Hussein Onn Malaysia, (UTHM). The document was reviewed and analyzed by using content analysis.

Table 2: Code Formation for data analysis

Code	Document Review	Year
D1	Kerja-Kerja Pencucian Dan Pembersihan Bangunan FSKTM, FPTEK dan FPTK di Universiti Tun Hussein Onn Malaysia	2011-2013
D2	Perkhidmatan Pencucian Dan Pembersihan Bangunan Fakulti Kejuruteraan Alam Sekitar di Universiti Tun Hussein Onn Malaysia	2012-2014
D3	Perkhidmatan Pencucian Dan Pembersihan Bangunan Zon C (Blok FPTV, FPTP, FSKTM, FKAAS DAN FKKEE) secara berkala selama (2) tahun di Universiti Tun Hussein Onn Malaysia	2016-2019

The questionnaire consists of section A, section B, and section C in order to achieve the second objective. Frequency analysis was used to analyzed section A where the result is as in Table 3.

Table 3: Frequency analysis of Section A

Profile	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	40	38.1	40.0

	Female	60	57.1	60.0	100.0
Age	18-29	60	57.1	60.0	60.0
	30-39	25	23.8	25.0	85.0
	40-49	13	12.4	13.0	98.0
	50-59	2	1.9	2.0	100.0
Race	Malay	86	81.9	86.0	86.0
	Indian	3	2.9	3.0	89.0
	Chinese	8	7.6	8.0	97.0
	Others	3	2.9	3.0	100.0
Faculty	FPTP	52	49.5	52.0	52.0
	FKAAS	48	45.7	48.0	100.0
Employment	Academic staff	23	21.9	23.0	23.0
	Non Academic staff	18	17.1	18.0	41.0
	4th year student	59	56.2	59.0	100.0

4.1 Identifying the Elements in the Service Level Agreement (SLA)

The elements involved in the SLA are tender statement, instruction to tenderer, tender checklist, general conditions, bidding declaration letter, tender form, tender acceptance letter, contractual terms, special provisions for Bumiputera, specification, tender summary, price list, price quotation for detergent, technical schedule, compensation rate, workers' schedule, number of workers and its location and lastly the appendices. The details of specification for D1, D2 and D3 are the same. The specification involves the details of location of work; scope of work; spaces included in the scope of work; terms of services; day and time of work; frequency of work; the needs of cleaning services during events or ceremonies; attendance of the workers; electricity and water supply; operation room, storage room and cabin; special spaces; the quality of cleanliness; the quality of services; supervisor; cleaning notice; report; training and safety signage. The major differences between these three documents are the cost for outsourcing the cleaning service. The cost to outsource cleaning services was divided into different sections. Table 4 shows the summary for the cost involves in the SLA.

Table 4: Summary for list of cost in the SLA

Cost Involve	Total (RM)		
	D1	D2	D3
Preliminary work	112,467	86,808	92,500
Daily, weekly and monthly work	FPTP: 405,600	FKAAS: 328,752	FPTP: 415,000 FKAAS: 625,000
Periodically work	48,020	31,400	38,880
Providing and maintaining sanitary bin and dispenser (soap and tissues)	306,000	198,240	77,400
Materials used for cleaning	Price per unit	Price per unit	Price per unit
i. Detergent			1,140
ii. Equipment	1,107	503	976.05
iii. Machine			18,080
Total			20,196.05
Cleaning during event	218,400	104,000	67,200
Arranging furniture	26,672	36,000	-
Allocation	115,000	170,000	200,000

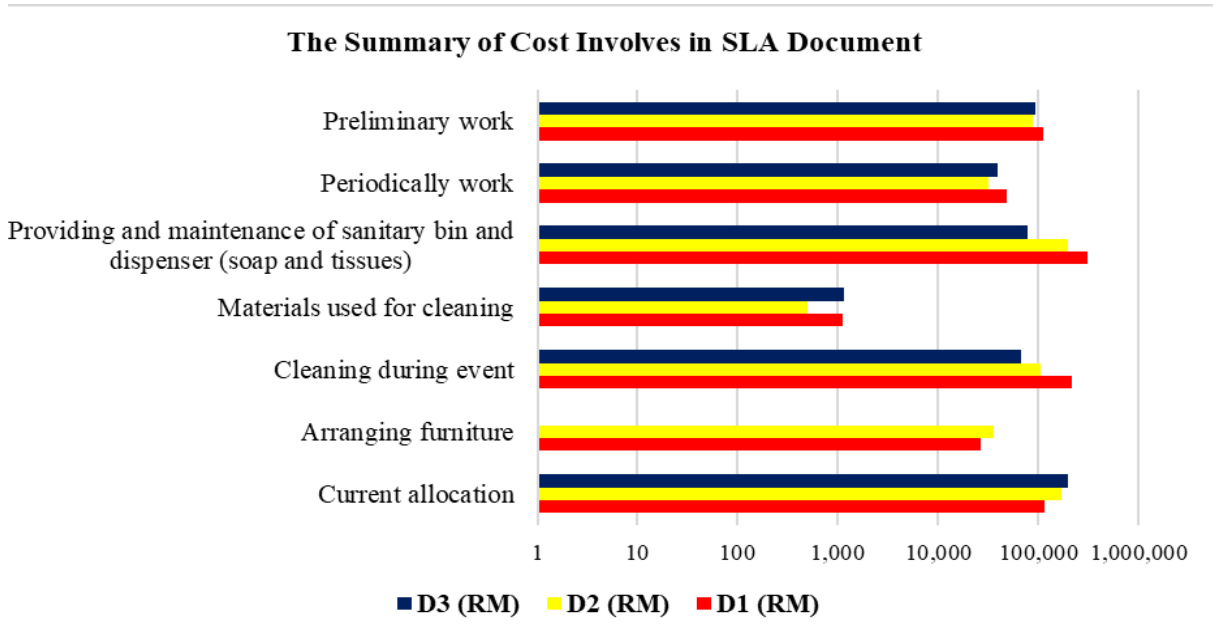


Figure 3: Summary for list of costs in the SLA

Preliminary work specifies the details of costs before the appointed contractor started his work which includes performance bond, insurance policy, uniforms and transportation. The cost for preliminary work in D1 (RM 112,467) recorded as the highest compared to D2 (RM 86,808) and D3 (RM 92,500). The cost for D1 was RM 25,659 higher than D2. On the other hand, the cost for D3 was RM 5,692 higher than D2. In conclusion, D2 recorded as the lowest cost in terms of preliminary work.

Periodically work generally involve the works that are being performed for either once or twice in one to two year. Once again, D1 recorded as the highest cost compared to D2 and D3. The cost of periodically work in D1 (RM 48,020) is RM 16,620 higher than D2 (RM 31,400). The cost then increased for RM 7,480 from D2 to D3 (RM 38,880). To sum up, D2 once again recorded as the lowest cost in terms of preliminary work.

In providing and maintenance of sanitary bin and dispenser (soap and tissues), the cost has decreased by year. The amount for providing and maintenance of sanitary bin and dispenser (soap and tissues) decreased by RM 107,760 from D1 with RM 306,000 to D2 with RM 198,240. The cost continues to decrease by RM 120,840 from D2 to D3 with RM 77,400. The highest cost in D1 and the lowest cost in D3 show a huge difference for RM 228,600.

Materials used for cleaning are being categorized into detergents, equipment and machines. Unfortunately, only D3 specifies the cost for machines and equipment while D1 and D2 only list the quantity needed. However, the cost listed is only the price per unit. In terms of detergents, D3 shows the highest price with RM 1,140 followed by D1 with RM 1,107 where the differences are only RM 33. D2 recorded as the lowest price with only RM 503 for the price of detergents. On the other hand, the cost of equipment was RM 976.05 while the cost of machines was RM 18,060 as mentioned in D3. The differences cannot be determined due to the unavailability of cost for equipment and machines.

The cost of cleaning during events was decreased by year. D1 has the highest cost of cleaning during event for RM 218,400. The cost was reduced by RM 114,400 where the cost of cleaning during the event in D2 was only RM 104,000. Lastly, the cost of cleaning during the event in D3 was RM 67,200 which is RM 36,800 lower than D2. However, the difference might be due to the way or the method the cost is calculated. D1 cost of the events was calculated with an estimation of 576 events in 2 years while D2 and D3 were calculated with an estimation of 480 events in 2 years.

Arranging furniture includes the work to clean all rooms together with its furniture for the reading area and lecture rooms during semester breaks. The frequency of work is 4 times a year. This cost only specified in D1 and D2 documents. The cost of arranging furniture in D2 (RM 36,000) was higher than D1 (RM 26,672) which is RM 9,328 cheaper than D2.

The current allocation is the amount of money that is currently allocated to reserve for any cleaning services needed for an additional building or when any seminar and courses are scheduled for UTHM’s staff. The amount for current allocation has increased by years. The cost for D1 was only RM 115,000 and it increased to RM 170,000 in D2. The amount increase from D1 to D2 was RM 55,000. The amount increases for another RM 30,000 from D2 to D3. Thus, D3 recorded as the highest cost for current allocation with RM 200,000 compared to D2 (RM 170,000) and D3 (RM 115,000).

The last section for cost specification in the SLA document is compensation for any works that the cleaning contractor did not perform. The compensation cost is only mentioned in D1 and D2. The rate of compensation in D1 is RM 300 to RM 500 per work which is higher than the rate of compensation in D2 which is RM 10 to RM 450 per work.

For FPTP, the cost for daily, weekly and monthly work was higher in D3 compared to D1. The cost for daily, weekly and monthly work for D1 which is from 2011-2013 is RM 405,000 while the cost for daily, weekly and monthly work for D1 which is from 2016-2019 is RM 415,000. Thus, the cost for FPTP daily, weekly and monthly work in D2 was RM 9,400 higher than D1.

On the other hand, the cost for daily, weekly and monthly work in FKAAS for D3 is RM 296,248 higher than D2. The cost for daily, weekly and monthly work for D2 which is from 2012-2014 is only RM 328,752 while the cost for daily, weekly and monthly work for D1 which is from 2016-2019 is RM 625,000.

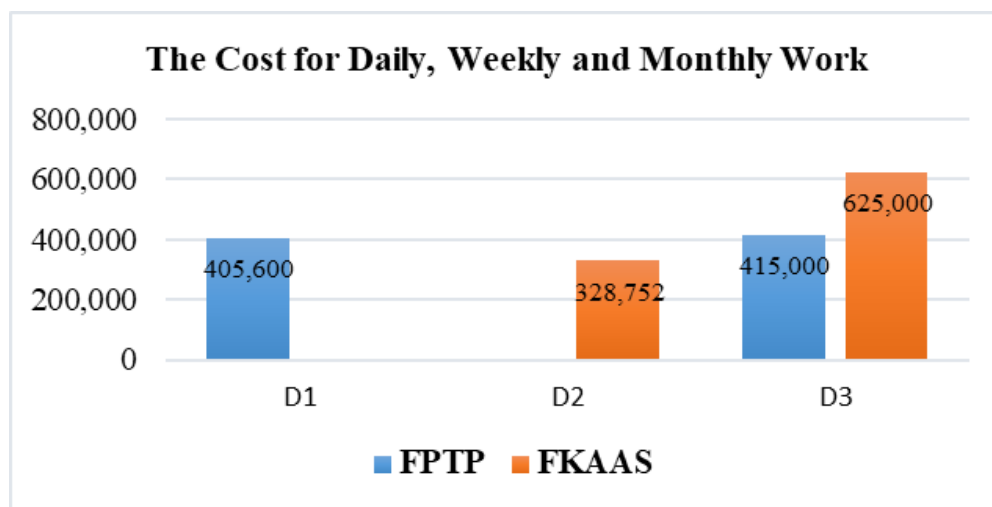


Figure 4: The summary cost for daily, weekly and monthly work

4.2 Analysing the Effectiveness of Current SLA with Users’ Perception of the Cleanliness Level at the Faculty

The last section in the questionnaire form aims to gain respondents’ perception of the quality of service performed by the current cleaning contractor. The result for all the questions achieved 50% and above except for question number 2 with only 49% respondents who agrees. This shows that the decision to reduce the amount of tissue and hand soap does not really satisfy the respondents.

Figure 5 shows the result for section B. The elements with the highest mean for the past 4 years is 3.8 followed by the past 2 years with 3.9 and current state with 4.14. Overall, there is an increase in

the mean value for the past 4 years. The result shows that the current state is actually good. Most of the element in the current state has a high mean compared to the past 4 years and 2 years. However, there is an issue where the current state mean is slightly lower for lecture room with 3.75 compared to 3.77 and parking lot from 3.72 to 3.71 in the past two years. As for drains, there is no change from the past 2 years and the current state which is 3.38. Thus, this shows that lecture room, parking lot and drains needs to be improved in term of its cleanliness (refer details in Appendix A).

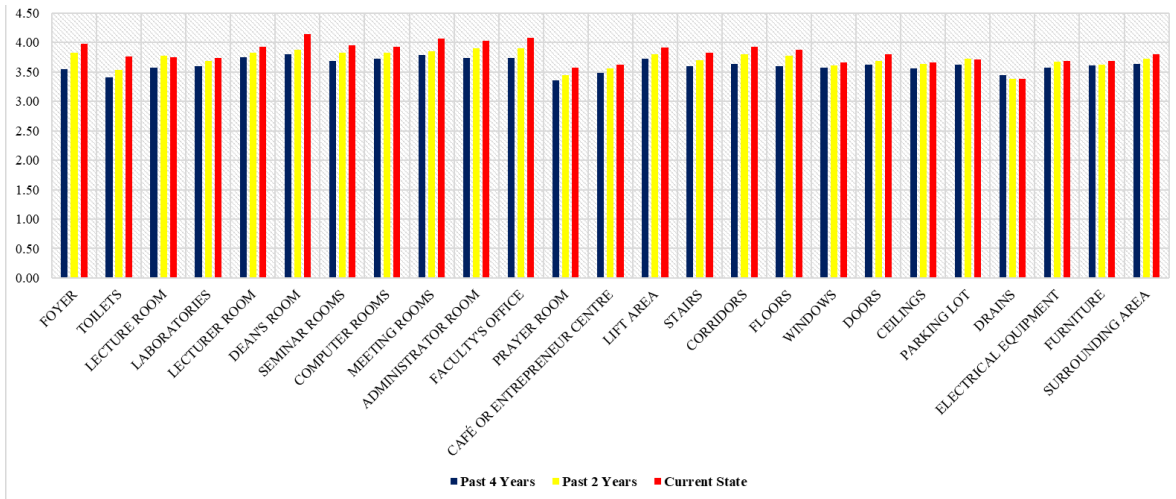


Figure 5: Cleanliness level for the past 4 years, past 2 years and current state

Instead of increasing the number of tissues, PPH might consider installing hand dryer machine. This initiative may help to save the planet by reducing the use of tissue and help UTHM towards sustainability. Overall, it can be concluded that the current SLA is still effective. Question number 10 in section C ask the respondents to give an opinion on the places they think need to be improved in term of its cleanliness (refer Figure 6). For toilets, 46% of respondents think it is exceedingly required, followed by 42% who said it is generally needed. Another 12% think that the toilets do not require any improvement in term of its cleanliness.

As for lecture rooms, 18% of the respondents think it is exceedingly required to improve in terms of its cleanliness. A majority (57%) of the respondents think lecture rooms is generally needed while the other 25% respondent think the lecture room does not require to be improved in term of its cleanliness. Only 11% of the respondents think it is exceedingly required to improve computer rooms' cleanliness while 54% think it is generally needed. On the other hand, 25% think the computer room is already clean thus it is not required for any improvements. The result for the prayer room shows that 43% of the respondents vote for exceedingly required followed by 47% who vote for generally needed. Meanwhile, only 10% think the prayer room does not require any improvement where they think the prayer room is already clean.

On the other hand, 25% of the respondents think the laboratories is exceedingly required for improvement in term of its cleanliness. This is followed by 56% who think it is generally needed to improve its cleanliness. Only 19% of the respondents think the laboratories are already clean where an improvement is not required. In addition, a majority of the respondents 57% think it is generally needed to improve cafe or entrepreneur area followed by 28% who think it is exceedingly required. Another 15% of the respondents were satisfied with cafe or entrepreneur area cleanliness thus they voted for not required. Lastly, 19% of the respondents think the faculty office is exceedingly required to improve in term of it cleanliness. Majority of the respondents (52%) think it is generally needed to be improved and 29% who think it is not required.

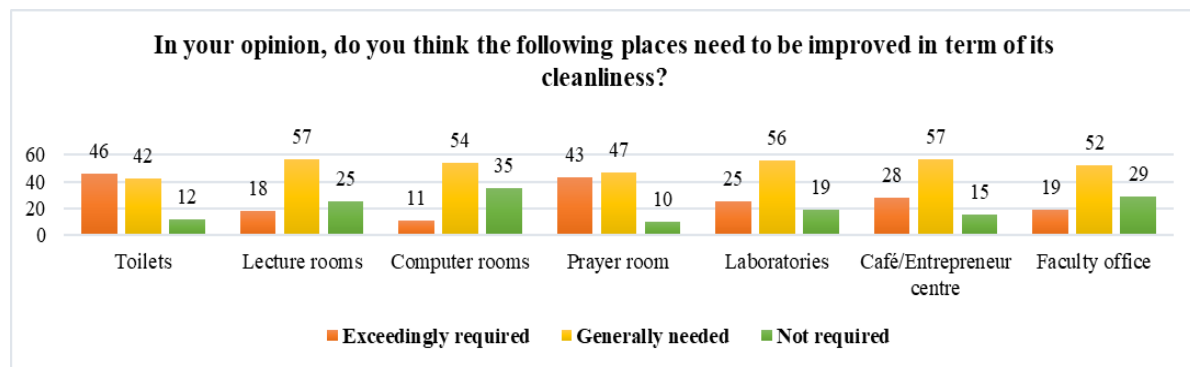


Figure 6: Respondents' opinion on cleanliness level

5. Discussion and Conclusion

In conclusion, the research objectives are successfully answered through the instrument of document review and questionnaire form. The researcher had discussed thoroughly all the issues arising from this research. This research shows that there are several elements involves to outsource the cleaning services where all the elements listed are explained into detail. In general, the cost for providing and maintenance of sanitary bin and dispenser (tissue and hand soap) and cleaning during events for the current SLA recorder as the lowest price compared to the previous SLA. On the other hand, the cost of daily, weekly and monthly work and the current allocation recorded as the highest price compared to the previous SLA. By distributing the questionnaire form to the respondents, this research has revealed that the quality of services performed by the outsourcing company still satisfied the users despite the reduction of cost to a few elements for the current state. However, since UTHM always reappointed a new cleaning contractor every two-three years, it is needed to monitor either the new contractor can do a good job like how the current contractor did. UTHM must avoid selecting the contractor who offers low prices without comparing the quality of cleaning services.

This research only funded by the researcher's own finance thus the scope of this research was only focused on UTHM instead of other public universities. The duration of time allocated to complete this research is only two semesters. In addition, there are semester breaks from June to September which cause the data collection for the second objective to delay for a certain period of time. The time taken to achieve 100 respondents also took around one and a half months due to the classes and other hindrances. Luckily, the data collection for the first objective was completed before the semester breaks. The time allocated to complete this research also limit this research to only study only for zone C UTHM despite the existence of other zones. The researcher also faces several difficulties in the process of data collection. One of them, the researcher only managed to gather three SLA documents for Zone C UTHM from PPH, UTHM. In addition, out of 100 copies of hardcopy for the questionnaire, only 50 questionnaires are safely received by the researcher. However, only 41 questionnaires can be used as the other 9 questionnaires were not completed. Luckily, the online questionnaire through google forms helps the researcher to achieve 100 totals of respondents as targeted by the researcher.

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Appendix A

Element	Past 4 Years			Past 2 Years			Current State		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
Foyer	1	5	3.54	2	5	3.82	3	5	3.98
Toilets	1	5	3.41	2	5	3.53	2	5	3.76
Lecture Room	1	5	3.57	2	5	3.77	1	5	3.75
Laboratories	1	5	3.60	2	5	3.69	3	5	3.73
Lecturer Room	1	5	3.75	2	5	3.82	2	5	3.93
Dean's Room	1	5	3.80	2	5	3.88	2	5	4.14
Seminar Rooms	1	5	3.68	2	5	3.82	2	5	3.95
Computer Rooms	1	5	3.72	1	5	3.82	2	5	3.93
Meeting Rooms	1	5	3.79	2	5	3.85	2	5	4.06
Administrator Room	1	5	3.74	2	5	3.90	2	5	4.03
Faculty's Office	1	5	3.73	2	5	3.90	3	5	4.08
Prayer Room	1	5	3.35	2	5	3.44	2	5	3.57
Café Or Entrepreneur Centre	1	5	3.48	2	5	3.56	2	5	3.62
Lift Area	1	5	3.72	2	5	3.80	2	5	3.91
Stairs	1	5	3.60	2	5	3.70	2	5	3.82
Corridors	1	5	3.63	2	5	3.80	2	5	3.93
Floors	1	5	3.60	2	5	3.77	2	5	3.88
Windows	1	5	3.57	2	5	3.61	2	5	3.66
Doors	1	5	3.63	2	5	3.69	2	5	3.80
Ceilings	1	5	3.56	2	5	3.64	2	5	3.66
Parking Lot	1	5	3.62	2	5	3.72	2	5	3.71
Drains	1	5	3.44	1	5	3.38	2	5	3.38
Electrical Equipment	1	5	3.57	2	5	3.67	1	5	3.68
Furniture	1	5	3.61	2	5	3.62	1	5	3.68
Surrounding Area	1	5	3.63	2	5	3.72	2	5	3.80