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Organisational Justice Analysis of Facility Managers' Responses to User's Post-Occupancy Feedback

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Abstract: There has been growing interest in how to foster collaborative relationships between facility managers and end-users to obtain user-centred post-occupancy data for improving design and user satisfaction. Despite this attempt, there is little understanding on how facility managers respond to user feedback and its impact on user post-feedback behaviours. Drawing from theoretical insights from organisational justice, organisational response, and service quality studies and using a case study of higher education facilities in Australia, how facility managers manage user feedback to drive collaboration between facility managers and users during occupancy is explored. Various methods were used in this case study research, including document analysis, interviews, and observations. The research findings indicate that facilitation, timeliness, redress, apology and explanation, and attentiveness and efforts are applicable to facilities management (FM) services and could influence user post-feedback behaviour. Current responses to user feedback are not satisfactory, resulting in a poor relationship between facility managers and users that negates service acceptance and the engagement in a positive word-of-mouth. To foster more facility manager–user collaborative relationships in post-occupancy evaluation, and position FM as a service organisation, there is a need for improvements in current FM responses to user feedback and the effective management of user post-feedback behaviours.

Keywords: facilities management; facility managers; organisational justice; post-occupancy evaluation; user feedback

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1. Introduction

Post-occupancy evaluation (POE) is a systematic approach used to collect user feedback on facilities performance [1]. Questionnaire, interview, and focus group are common techniques used to collect POE data from end-users. It was argued that POE could be used as a process to facilitate communication between facility managers and users [2,3]. However, these formal POE data collection techniques may not effectively support the day-to-day interactions between facility managers and users [4]. The evaluation of facilities in this research extends to include the day-to-day process of data collection on the facilities' performance from the end-users. This is a less formal process for collecting data more frequently than the traditional POE, and it is important to continuously support, enhance and examine the performance of facilities [5,6]. User post-occupancy feedback refers to the facilities' performance information collected from end-users and it is in the form of compliments and complaints [7]. User post-occupancy feedback can be gathered via both formal and informal channels, such as social media, internal memos, e-mail, face-to-face reporting and phone calls [6,8,9]. User post-occupancy feedback reflects users' needs and their level of satisfaction on the facilities in use [10].

End-users have been identified as one of the most relevant key stakeholders within facilities management (FM) relationships [11]. Coenen et al. [11] stated that strong relationships in FM can be achieved through the co-creation of services, integration of resources

and effective communication. The co-creation of services between facility managers and end-users could only be possible through cooperation and collaboration. There is a need for an equal dialogue and exchange of ideas between the facility managers and end-users [11]. However, the tendency of facility managers to neglect users in the daily management of facilities has been criticised [2,3,12]. The inadequate two-way communication between facility managers and users negates the effectiveness of user feedback collection [2,3]. It was also argued that the value of FM services provided can only be defined by all the stakeholders and not just the facility managers [11]. Besides, it was found that facility manager responses to feedback contribute to different levels of user satisfaction [13]. Indeed, in FM, while there has been some research into user satisfaction with the performance of facilities [14], there is little research into FM responses to feedback and the post-feedback behaviour of users after their feedback has been handled [7].

There is a need to improve facility manager–user relationship in the day-to-day evaluation of facilities performance via effective communication [3]. The relationship between the facility manager and users can be influenced by the level of openness and trust in resolving user complaints [15,16]. Facility managers need to improve their level of fairness in responding to users' requests [7]. Organisational justice means the fairness with which a service organisation responds to customer or employee issues. Campbell and Finch [17] claimed that the application of organisational justice can enhance two-way communication in the FM industry. It is inevitable for facilities users to make demands and how their demands are resolved is crucial. Davidow [18] pointed out that the service providers' effort should be appraised and assessed from the viewpoint of feedback response. Organisational justice principles could enhance customer experience and remodel FM services as a service organisation [17], and an appropriate feedback response could facilitate continuous commissioning where services target customer requirements [6]. Remodelling FM services as a service organisation would involve the use of innovative business models to inform FM practices. However, organisational justice and response research is argued to be undeveloped and under-theorised, particularly in the field of FM [7,17] and empirical research into facility manager–user relationship in the evaluation of facilities performance remains scant and largely anecdotal [2,7,19]. Furthermore, while the theme of organisational justice and response to customer complaints has been on the retail and service organisational research agenda for many years [18,20,21], research into how this operates in the evaluation of facilities performance is rare [6,7]. To overcome this research gap, the purpose of this research is to explore the value of organisational justice and response theory in answering the following research questions.

1. How do facility managers respond to user post-occupancy feedback?
2. How do facility managers' responses to user post-occupancy feedback influence user behaviours?

1.1. Organisational Justice and Response Perspective in Post-Occupancy Feedback

For this research, organisational justice refers to the degree to which users view themselves as being fairly treated by the facility managers in relation to the facilities they are using and responses to their feedback. Prior post-occupancy evaluation (POE) studies show some degree of users' dissatisfaction with the performance of some facilities provided [22], whereas there is a need to improve user satisfaction [23]. Users tend to express dissatisfaction when the facilities do not adequately support their activities [7], and when such dissatisfaction extends beyond a certain level of tolerance, they may lodge formal complaints [24]. The way organisations respond to complaints is critical [25] because it determines the customer service encounter, which represents interactions between the service provider and the customer regarding the service rendered [26]. The relationships and interactions between the users and facility managers determine the service encounter experience during the post-occupancy phase of facilities. The use of the organisational justice theory to evaluate service encounter and recovery procedures has been rarely explored in FM studies [7,17].

The organisational justice theory is an extract of the social exchange theory and equity theory and is based on social psychology [27]. Previous studies on service organisations research have applied a three-dimensional approach, when studying organisational justice, that is, distributive, procedural and interactive justice [28,29] as shown in Figure 1. *Distributive justice* is the fairness of the complaint and the final recovery outcome based on customer perception [28,30]. *Procedural justice*, regarding the provision of feedback, is the perceived equity of policies, processes and the mechanisms available to support feedback reporting and responsiveness [18]. Customer perceptions of procedural justice can be improved if customers are given the chance to provide information and voice their concerns before decisions are taken [29]. The opportunity for customers to present information and voice their complaints that require appropriate actions by an organisation are the voice and choice effects in procedural justice (see Figure 1). *Interactional justice* deals with interpersonal interactions during the process of service delivery [31]. Some researchers classify interactional justice into interpersonal and informational justice [32]. *Interpersonal justice* refers to the equity of the action towards the customers during the service encounter [33], while *informational justice* is the perceived equity of the suitability and rightfulness of clarifications [32]. The interactional justice focuses on the service provider's effort, empathy and politeness towards the customers [30].

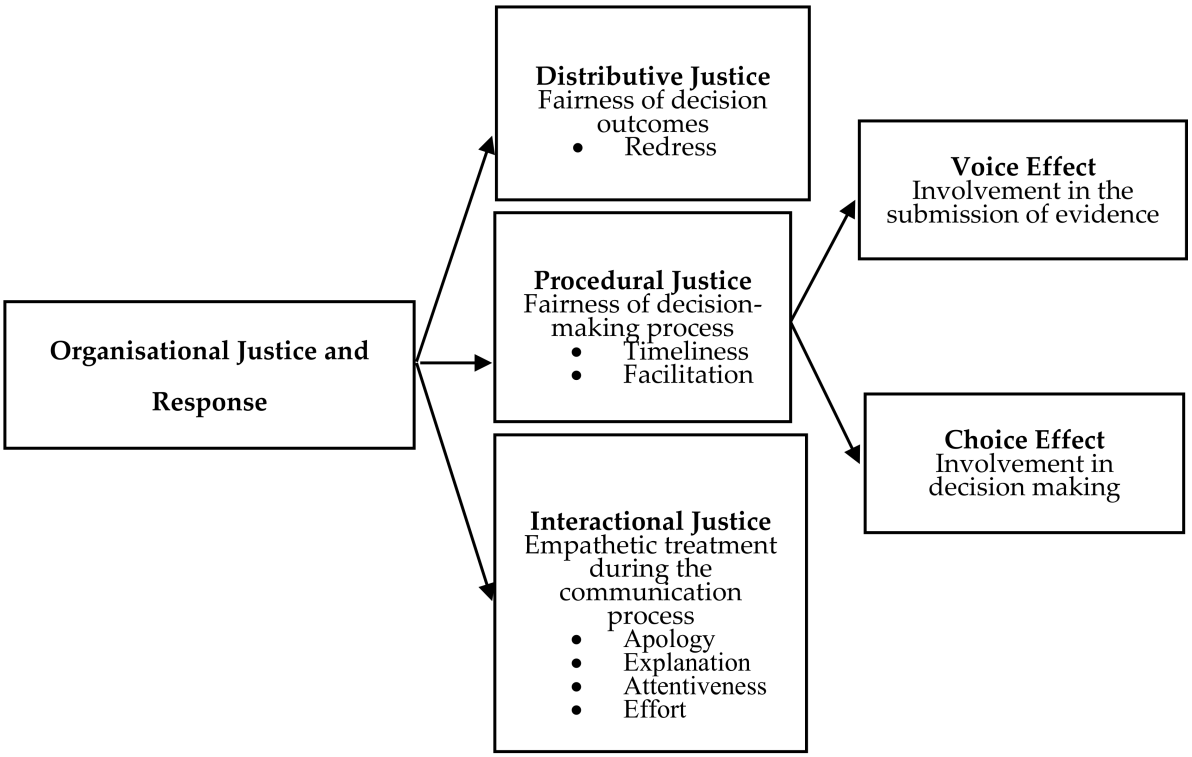

Figure 1. Dimensions of organisational justice and response theory. Adapted from Abisuga et al. [7].

Different commentators have examined the links between the three organisational justice dimensions in regard to customer satisfaction and post-complaint behaviours [31,34]. However, Davidow [18] argued that organisational justice dimensions cannot give an appropriate measure of the equity in the actions taken by the organisations, and the organisational action should be examined based on organisational responses to feedback. Davidow [18] contented that the justice dimensions required to be re-classified to extend a relational framework which can evaluate the attribute of handling customer feedback. Davidow [18,20] proposed six response dimensions which are attentiveness, apology, timeliness, redress, facilitation, and explanation, whereas Karatepe [33] and Cai and Chi [35] believed that effort is another response dimension, because of the amount of effort involved in resolving a feedback is paramount. Further, Karatepe's [33] study relates redress with

distributive justice; facilitation and timeliness with procedural justice; and attentiveness, apology, effort and explanation with interactional justice (See Figure 1).

As mentioned above, there is a scanty discourse in the literature on what accounts for an appropriate response procedure to user feedback in the FM context. A synthesis of previous studies has indicated the dimensions of an appropriate response to feedback based on organisational responses and justice theory. These dimensions are facilitation, timeliness, redress, apology, explanation, attentiveness, and effort (see Table 1). Table 1 indicates the description of the organisational responses dimensions and the operationalised items, that is, the measurable variables. The idealised FM operational items of dimensions are derived from variables used in previous studies on organisational justice and responses [18,33,36].

Table 1. Core responses dimensions to user feedback.

Dimensions	Definition of Dimensions	Idealised FM Operational Items of Dimensions
Facilitation	"The policies, procedures, and structure that a company has in place to support customers engaging in complaints and communications" [18] (p. 232).	It was easy to determine where to lodge my complaints. The facilities management (FM) unit policies made it clear how to lodge complaints. The FM unit should develop a policy guideline for complaints reporting. Too much paperwork was required during the process.
Timeliness	"The perceived speed with which an organisation responds to or handles a complaint" [18] (p. 232).	The facility managers reacted to my complaint very fast and resolved it. The facility managers' response to my complaints was very slow. The facility managers were not fast in dealing with issues.
Redress	"The benefits or response outcome that a customer receives from the organization in response to the complaint" [18] (p. 232).	The facility I complained about was properly fixed. The way my complaint was handled had no impact on the condition of the facility I complained about. The way my complaint was handled further worsens the state of the facility I complained about.
Apology	"An acknowledgement by the organization of the complainant's distress" [18] (p. 232).	I did not receive any form of apology from the facility managers. The facility managers gave me a genuine apology. I received a sincere "I'm sorry" from the FM unit.
Explanation	"This is the ability or willingness of the service provider to explain the reason for the problem or failure that caused user complaints" [7] (p. 8).	The facility manager did not give me any explanation at all. I did not believe the facility manager's explanation of why the problem occurred. The facility manager's explanation of the problem was not comprehensive enough for me to address future occurrence.
Attentiveness	"The interpersonal communication and interaction between the organizational representative and the customer" [18] (p. 232).	The facility managers were quite pleasant to deal with. The facility manager appreciates me making a complaint. The facility manager paid attention to my concerns.
Effort	Effort is the amount of time and energy spent by the service provider representative to accomplish a task [7] (p.8).	The facility manager worked at his/her full capacity to resolve my complaint. The facility manager strived as hard as possible to be successful in resolving my complaint. The facility manager devoted himself/herself to resolving my complaint.

Thus, the service quality (SERVQUAL) model is often applied to FM research to measure customer satisfaction with FM service quality [37,38]. However, the model has been criticised to lack the potential to measure service encounter outcomes [38,39]. It is important that facility managers provide appropriate and satisfactory responses to users' requests and complaints during service delivery. Campbell and Finch [17] attested that a productive two-way communication between facility managers and users can lead to

collaborative decision making in FM. Therefore, for FM organisations to competitively position themselves as service providers [40], and effectively manage customer satisfaction and post-feedback behaviour, facility managers need to be conscious of how customers are treated during service encounters [41,42].

1.2. Impacts of Organisational Response on Customer Post-Feedback Behaviour

Previous studies in service research have investigated the interrelationships between the response dimensions and post-complaint behaviours, such as satisfaction, intention to repurchase and word-of-mouth (WOM) [18,35] as shown in Table 2. Table 2 indicates the descriptions of the user post-feedback behaviour dimensions and the operationalised items, that is, the measurable variables. The idealised FM operational items of dimensions are derived from variables used in previous studies on organisational justice and responses impacts on post-complaint customer behaviour [18,33,36].

Table 2. Core user post-feedback behaviour dimensions.

Dimensions	Definition of Dimensions	Idealised FM Operational Items of Dimensions
Relationship satisfaction	"Relationship satisfaction is the users' overall feeling with the way a service provider has handled their feedback" [7] (p.10).	I am satisfied with the channel of communication and interaction with the facility managers. I am satisfied with the facility managers' responses to my feedback and will collaborate. I now have a more positive attitude towards the FM units.
Word-of-mouth	It is the information that people tell each other rather than it being in written form.	I will say positive things about the FM services to other people. I am likely to tell as many people as possible about my negative experience.
FM services acceptance (Intention to repurchase)	This is the willingness of a customer to continue relating and transacting with the service provider. In relation to FM, it is the willingness of a user to continuously utilise the facilities provided [7]	I will probably prefer to move to another better space due to how my complaint was handled. I prefer not to use the facility due to poor services. Encourage friends and colleagues to utilise and accept the facilities. Recommend the facilities to someone who seeks your advice.

For instance, Stevens et al. [43] confirmed that timeliness of service delivery helps to prevent the customer from engaging in negative word-of-mouth; whereas Estelami [44] confirmed that promptness positively influences the level of satisfaction with the complaint handling procedure. Einwiller and Steilen [45] argued that redress is the most critical part of the response to feedback which has a significant impact on satisfaction. In addition, [45] stated that just apologising does not have a significant influence on customer satisfaction, but apologies are anticipated responses to complaints. Additionally, Ali et al. [46] found that an apology has no significant influence on customer intention to repurchase the products. Karatepe [33] found that an explanation impacts interactional justice, because an explanation supports interactions between the customers and the service provider, while Saad and Zaki [34] stated that it is essential for a service provider to provide an explanation of the situation and effort taken to resolve the complaints. Davidow [20] stated that attentiveness has a positive significant impact on satisfaction and repurchase behaviour. In relation to effort dimension, Karatepe [33] stated that effort has a more significant impact on interactional justice than apologies and explanations. In another study, Davidow [20] established that there is a positive significant relationship between satisfaction, repurchase intention and word-of-mouth. Additionally, user satisfaction fosters engaging in positive word-of-mouth that inspires other users to utilise the facilities provided [47,48]. Cai and Chi [35] attested that service organisations with written feedback handling procedures and policies, facilitates customer feedback, and supports continuous service improvements.

As mentioned above, there are interrelationships between organisational responses dimensions and post-complaint customer behaviours. Therefore, it is important to measure the relationships between organisational responses dimensions and post-complaint customer behaviours. This is because it enables organisations to appraise customers' attitude after their complaints are resolved. Few studies have used the SERVQUAL model to appraise how end-users feel about facility managers' action when responding to users' requests, whereas no study has adopted organisational responses dimensions to analyse facility manager–user relationships in the day-to-day evaluation of facilities performance. Abisuga et al. [7,19] proposed a conceptual framework for facility managers' responses to user post-occupancy feedback and their impact on user post-feedback behaviours as indicated in Figure 2, which shows the framework for hypothetical relationships among the response dimensions and user post-feedback behaviours. However, there is no comparable research into facility managers' responses to user feedback and user post-feedback behaviour in the context of organisational justice and responses dimensions. As such, this research addresses this gap by conducting an in-depth case study.

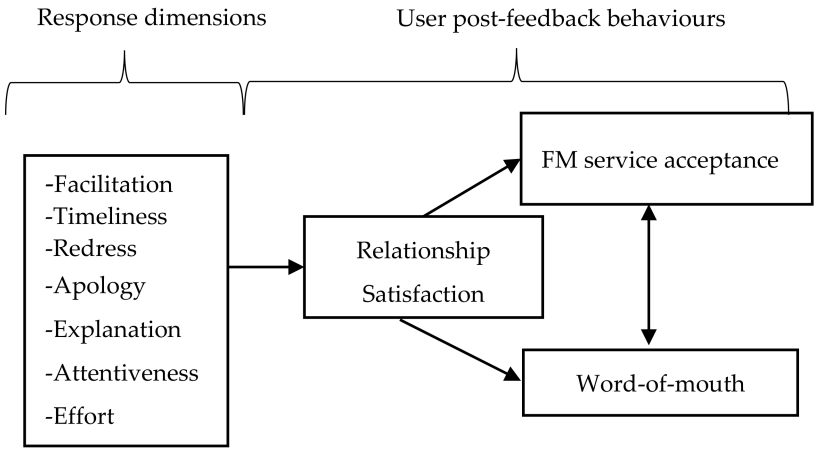

Figure 2. Hypothetical framework for facility managers responses to user post-occupancy feedback and behaviour. Adapted from Abisuga et al. [7].

2. Methods

2.1. Case Study Selection

The purpose of this research is to examine the value of organisational justice and response in understanding how facility managers handle user feedback, and the resulting user post-feedback behaviours. To achieve this, two research questions and a hypothetical framework was established based on previous studies. To seek answers to the questions, a case study approach was adopted. Noor [49] (p. 1603) stated that a case study is useful in "capturing the emergent and immanent properties of life in organizations and the ebb and flow of organization activity, especially where it is changing very fast". To select an appropriate case study organisation, it was paramount to target an organisation that needs continuous day-to-day capturing of facilities performance, and where it is essential to sustain a good relationship between facility managers and the users. Reviews of POE studies indicated that higher educational facilities were one of the most targeted building types subjected to performance evaluation [50]. Higher educational institutions (HEIs) were considered for this purpose due to their large building stocks with building services required to support daily operations and the need for daily users' feedback.

Buildings in HEIs have a wide range of spaces with different functions to support the daily activities of a variety of users, including students, staff, and public visitors. As pointed out by Price et al. [51], user requirements of these spaces change over time, and this can influence users' perceptions, and therefore it is a very challenging task to ensure these spaces meet end-users' needs [10]. Facility managers in HEIs have a responsibility to ensure the provision of functional facilities to support the daily activities of all the

users. It has been argued that the identification of user needs is one of the challenges facing facility managers in HEIs [52], and it is essential for facility managers to be more conversant with diverse user needs to improve user satisfaction [13]. In this case study, an HEI building accommodating Built Environment disciplines in an Australian University was selected. This institution was selected for this research because of the availability of access [53,54], allowing the researchers to observe the building users and occupants for an extended period of time [54]. This provides a better understanding of a real-life user's post-occupancy experience within the selected institution.

The selected faculty building was designed in 1997 with a passive design system that governs the indoor environment quality of the facility. The building has 8 floors (ground, mezzanine, and level 1–6) and a basement. The building comprises of staff offices, teaching and learning spaces, studios, computer labs, lecture hall, toilets, elevators, staircases, and open spaces (see Figure 3a–d). The users of this building, i.e., the students and staff, were considered as prospective research participants, while the staff in charge of the management of the building were considered as the FM personnel. Some of the major components of the facility and methods for controlling the indoor environment includes air conditioning, cross ventilation (comprises of manual louvres), daylighting control (provision of clerestory windows, internal voids, and large facing glazing), exposed thermal mass, heating devices (provision of a mobile personal heater, convertor heaters and gas heater) and the manual operation of the passive system.

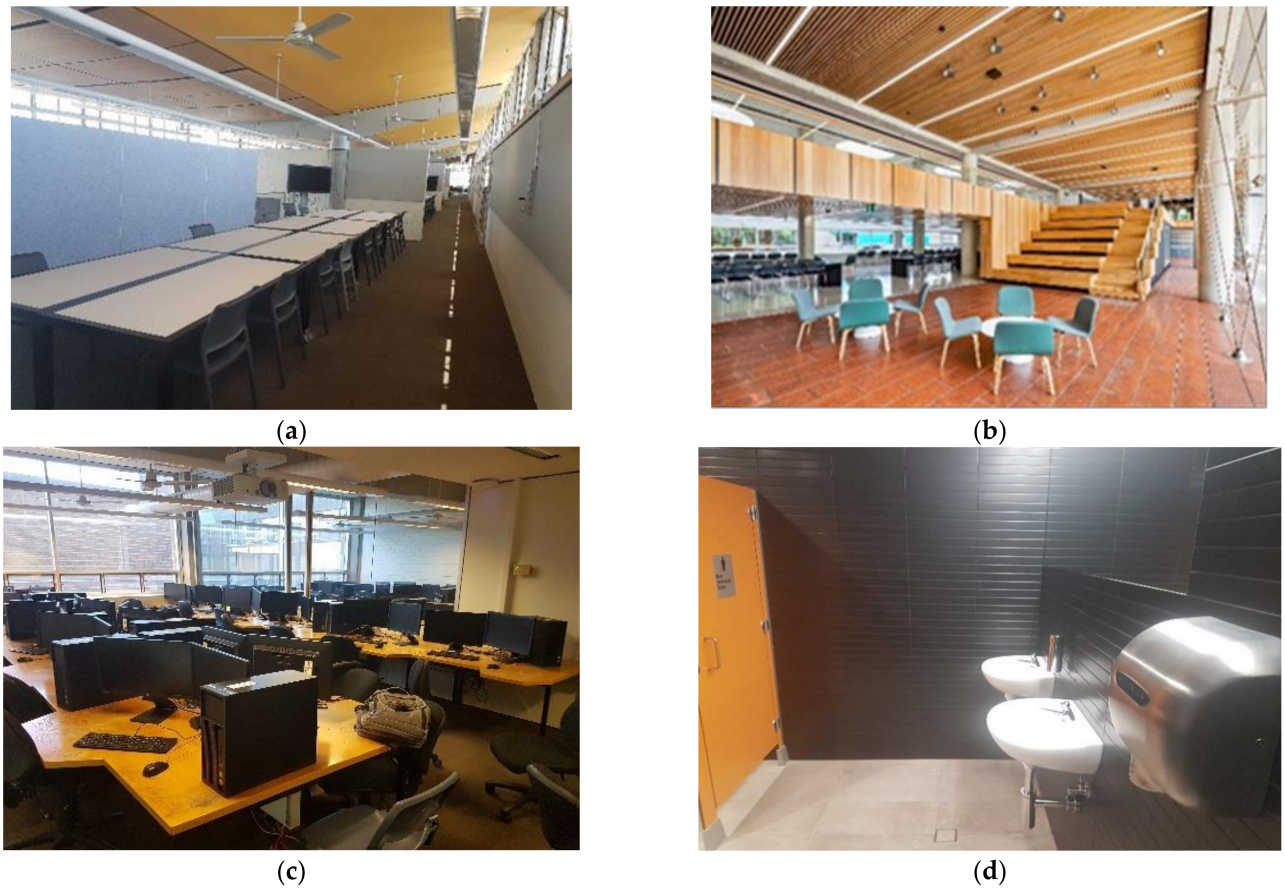

Figure 3. (**a**) Study spaces and classroom level 6; (**b**) newly renovated learning spaces; (**c**) computer lab at level 3; (**d**) toilet at basement.

2.2. Data Collection and Analysis

The study adopts a qualitative method based on the process of interpretivism (constructivism) epistemology and subjectivism ontology. Constructivism recognises that many different stakeholders in an HEI would have different post-occupancy experiences of the performance of facilities in use and on that account individually fashion their own subjective understanding and interpretation of their FM services encounter [54,55]. Interpretivist epistemology, which consists of qualitative methods of data collection and analysis, is an in-depth interaction with the respondents in the natural setting of an educational institutions [56,57]. This research has obtained the required ethics approval (HC180574) before the commencement of data collection. This approval covers the participant selection process, data collection and analysis procedure, data storage, participant confidentiality and dissemination of results. All the necessary terms of the ethics approval were adhered to during the conduct of the research, and individual participants, including facility manager, students and staff, are not identifiable.

To carry out the case study investigation, semi-structured interviews were conducted. This involved targeting various students and members of staff within the selected building to gain a balance perception. Figure 4 shows the process of conducting the data collection and analysis. First, participants were randomly invited to take part in the interviews through email and face-to-face, in which the aim of the research was explained. Those who were interested gave their consent to participate in the interview process. Second, among the participants who indicated their interest to participate in the interview, the interviewed participants were purposefully selected from those who have interacted, provided feedback to, or have had any encounter with, the facility management unit.

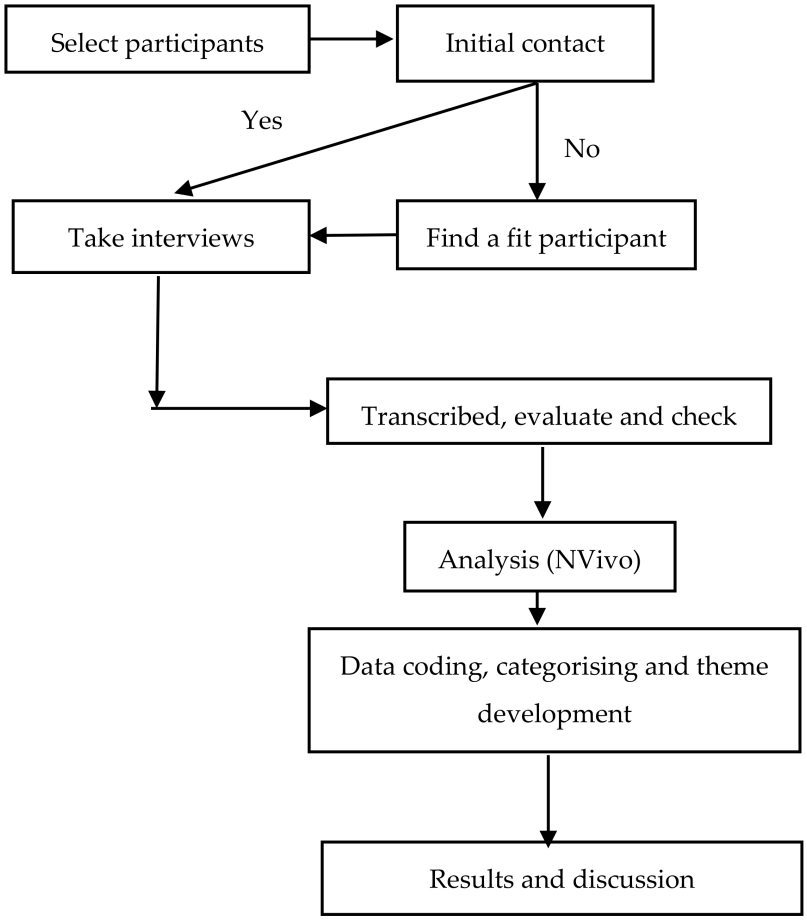

Figure 4. Data collection and analysis process.

Semi-structured interviews were conducted with the intention to corroborate the ideas obtained from previous studies and verify the hypothetical framework in relation to the research questions, using an HEI as a case study. The interview sessions were targeted to collect opinions and to extract new ideas from participants who were experienced in the post-occupancy feedback process. A total of 29 participants were interviewed as users of the facilities and their profile is presented in Table 3. According to Bazeley [58], the adequacy of the sample size of ten is tenable because saturation could occur with any number greater than six. As pointed out by some previous researchers, the size of the sample in qualitative research becomes irrelevant when the population considered is a small group with experience of a specified topic [59,60]. The participants were classified into three groups: academic staff, administrative staff, and students. According to Table 3, 17 students, 5 academic staff and 7 administrative staff participated in the interview. Additionally, the participants have been occupying the building between 1–12 years. A total of 14 males and 15 females were interviewed.

Table 3. Demographic of participants.

Participants Code	Role	Gender	Years of Occupancy
SE01	Student	Male	2.5 years
SE02	Student	Male	2 years
SE03	Student	Female	2.5 years
SE04	Student	Female	2 years
SE05	Student	Female	1 year
SE06	Student	Male	3.5 years
SE07	Student	Female	2 years
SE08	Student	Male	3 years
SE09	Student	Male	3 years
SE10	Student	Female	4 years
SE11	Student	Male	4 years
SE12	Student	Female	3.5 years
SE13	Student	Female	2 years
SE14	Student	Male	5 years
SE15	Student	Male	4 years
SE16	Student	Female	5 years
SE17	Student	Male	4 years
AS18	Academic staff	Male	2 years
AS19	Academic staff	Female	10 years
AS20	Academic staff	Male	6 years
AS21	Academic staff	Female	12 years
AS22	Academic staff	Male	11 years
PS23	Administrative staff	Female	8 years
PS24	Administrative staff	Female	6 years
PS25	Administrative staff	Female	10 years
PS26	Administrative staff	Male	8 years
PS27	Administrative staff	Female	5 years
PS28	Administrative staff	Male	6 years
PS29	Administrative staff	Female	6 years

The interview questions were based on the idealised FM operational items of dimensions, as highlighted in Tables 1 and 2. The participants were asked questions on how facility managers handled their day-to-day complaints or requests about the performance of the facilities provided. The day-to-day user post-occupancy feedback reported to the facility managers' focus on indoor air quality, thermal comfort, acoustic comfort, visual comfort, cleanliness, accessibility, maintenance and management, and safety and security. The most common feedback channels used by the participants to report their complaints and requests are through email and face-to-face.

The semi-structured interviews were conducted face to face and by telephone. The participants were interviewed from October 2018 to April 2019. Each interview lasted ap-

proximately 40–90 min and were recorded after receiving the participants' permissions. All recorded interviews were transcribed with all participants' information being anonymised. NVivo software can facilitate the analysis of large text used in qualitative research, construct code, themes and categories, and generate data visualisation [61]. The data collected were analysed with a thematic approach using NVivo Pro. NVivo Pro was used to code and generate sub-themes from the participants' narratives, which were categorised under the FM response dimensions (main themes). Further, NVivo Pro was employed to establish visualisation with word cloud and cluster analysis to establish a word similarity metric within nodes with Pearson's correlation coefficient. Cluster analysis is an exploratory technique that can be used to visualise pattens within nodes that share similar words, whereas a similarity metric is a statistical method utilised to calculate the correlation between items. The visualisation with the word cloud reflects the degree to which participants referenced a particular theme, whereas the cluster analysis indicates possible links and interrelationships between the participants' referencing of the themes.

The transcripts were then analysed, coded, and compared against the findings of previous studies on whether FM responses conform with the organisational response dimensions, as operationalised in Tables 1 and 2. The thematic analysis conducted using NVivo Pro enables the generation of sub-themes categorised under the main themes. A total of 194 references were generated, which were categorised into 22 sub-themes and 8 main themes (see Table 4). The findings of the research are presented in the narrative form buttressed by selected quotes from the interviews. Additionally, supporting information from POE records, such as indoor air quality, thermal comfort, temperature condition, equipment provided, lighting, cleanliness, flexibility of layout and toilet were considered.

Table 4. Number of nodes and reference found in NVivo analysis.

Research Focus	Main Themes (Nodes)	No. of Sub-themes (Nodes)	Sub-Themes	Source	References
FM response dimensions	FM Facilitation	3	Unclear modes of communication Lack of FM policy for feedback reporting Difficulty in accessing FM personnel	25	40
	FM timeliness	3	Reactive nature of FM Lack of promptness in FM services provision FM services provided at designated time	19	27
	FM redress	3	Inappropriate FM services and repairs rendered Neglect of user feedback on the performance of repaired facilities Uncertainty of the standard of FM services and repairs rendered	27	32
	FM apology and explanation	3	Need for FM politeness and respect in handling feedback Unconvincing FM apology Unacceptable FM explanation	12	13
	FM attentiveness and effort	3	Lack of FM personnel willingness to help users Lack of FM personnel effort to understand user needs Lack of FM personnel attention to user requests	5	10

Table 4. *Cont.*

Research Focus	Main Themes (Nodes)	No. of Sub-themes (Nodes)	Sub-Themes	Source	References
User post-occupancy feedback behaviour dimensions	FM relationship satisfaction	3	User dissatisfaction with FM relationship Lack of facility manager–user collaborative relationship Neglect of user participation in FM decision making	26	34
	FM service acceptance	2	Need for provisions to improve FM services Utilisation of facilities due to lack of alternatives	14	23
	Word-of-mouth	2	Engaging in negative word-of-mouth Engaging in positive word-of-mouth	12	15
	Total	22		140	194

The majority of the participants indicated that they have not had opportunities to participate in a comprehensive POE exercise. The last comprehensive POE result of the building in record was conducted in 2011. It is important to note that some of the POE issues complained about in the outcome of the POE conducted in 2011 are similar to the current user post-occupancy feedback. Post-occupancy issues, such as acoustics between offices and classrooms, temperature conditions, sizes of staff offices, and cleanliness of the toilets, are still lingering issues raised in the user post-occupancy feedback. This research has considered user post-occupancy feedback provided to the facility managers through email and face-to-face, and the user perceptions on how facility managers handled the feedback. These user perceptions could be influenced by some factors, such as age, climate, season, language, gender, and roles [62–64]. The impacts of these factors were not investigated in this research.

3. Results and Discussion

This section is divided into two parts to address research questions one and two, and the hypothetical framework. The first part discusses the findings relating to research question one on how facility managers handle user post-occupancy feedback, in accordance with the seven response dimensions from the organisational response criteria, including facilitation, timeliness, redress, apology and explanation, and attentiveness and effort, as shown in Figure 2. The second section deals with the findings of the impact of facility managers' responses to user feedback on user post-feedback behaviours, that is, FM relationship satisfaction, FM service acceptance and word-of-mouth as in the hypothetical framework (see Figure 2).

3.1. FM Responses to User Feedback

3.1.1. FM Facilitation

FM facilitation is the policies, procedures, and structure that facility managers need to put in place to support user feedback reporting. Facilitation is classified under the procedural justice dimension (see Figure 1). The findings of the research showed that FM facilitation was principally depicted by participants in the case study as dissatisfactory. Some of the participants believed that FM still lacks an appropriate communication structure and policy that could support facility manager–user collaboration in the day-to-day evaluation of educational facilities. This means that the current FM practice, to some extent, does not encourage user participation in day-to-day post-occupancy feedback or does not consider the importance of user feedback in decision making.

> "Ignorance is not an excuse. Maybe there is a policy in place that I don't have access to. For me definitely it will be good to have a policy in place which should be implemented to get FM response, and feedback from users". (AS18)

The research findings also indicated that poor FM facilitation could result in time wasted, frustration, and discouragement because it is difficult for users to know how, who and where to report facilities performance.

> "I guess it is not clear whom to contact. I don't know whom to give feedback to, so it takes a lot of time, is frustrating and does not encourage me to give feedback". (SE02)

Another issue raised by the majority of participants is that they felt that they have limited access to report their complaints directly to facility managers for prompt attention. Participants believed that the responses to their requests were always delayed due to the bureaucratic structure puts in place so that users must report to a third party instead.

> "Unfortunately, we didn't even know where to complain to. But honestly, nothing was complained to the FM, but we complain to the support service assistance. But of course, we will get results as quickly as possible if we all have the channels to report. Because it's just like one party to another party which ends up with another party". (SE01)

In contrast, some of the participants believed it is appropriate to lodge their complaints with FM representatives within their faculty building. This approach of direct communication with a third party was appraised to be an effective procedure of providing information to the facility managers.

> "Yes, very easy since we have an operation manager within the faculty". (AS22)

Some participants also indicated that reporting to the third party may delay the FM response. Our findings revealed that email is the primary communication link between the users and FM representatives.

> "If we have issues in our facilities or office, we send an e-mail to the FM representative so they can help us". (SE 05)

The importance for the provision of a clearly defined FM policy for the feedback process was discussed, and it was revealed that the implementation of a clearly defined FM policy will ease complaints procedure and standardise the feedback process.

> "The school should come up with a policy to enhance the synergy on how the users are meant to respond. It will enhance the process of users complaining on time and the FM responding on time. And maybe collaborating". (SE04)

The findings revealed that the current FM policies and structure is inadequate and does not support effective communication between the users and facility managers. This research finding supports Kamaruzzaman et al. [65] and Odediran et al. [66] who found that FM organisations still lack policy implementation. Therefore, the current FM practice needs to be improved to foster user collaboration tendency as succinctly stated by participant SE02, "*I mean the interaction is too low currently*". Cai and Chi [35] found that service organisations with established written feedback handling procedures and policies inspire customer feedback and continuous improvements. Therefore, encouraging user post-occupancy feedback necessitates facility managers to be explicit and provide open access for all users to report and review the feedback process. This suggestion aligns with Stevens et al. [43] who said that openness and clarity are essential in managing customer feedback. The inadequate support of FM facilitation within the case area is an indication that the practice of procedural justice is inappropriate. Additionally, this may negate end-users' perceived fairness of FM decision making regarding the day-to-day evaluation of facilities performance.

3.1.2. FM Timeliness

FM timeliness is the speed with which facility managers respond to a complaint, and timeliness is categorised with procedure justice. The findings showed that some of the participants were satisfied, whereas some were not with the responsiveness of facility managers to their feedback.

> "I think it is fair enough. They respond on time". (SE03)

> "No, it's very slow. Mostly one week, I think. They are not efficient". (SE05)

This finding reveals that the facility managers in charge of the building are slow in responding to user post-occupancy feedback. The results support the argument of Eley [67] and Odediran et al. [66], who stated that facility managers are reactive in responding to feedback, and in managing and maintaining facilities.

> "No, we are not satisfied, the communication is poor, the response is slow. Sometimes it takes like 3 months before the facility problems are rectified". (AS19)

It was also confirmed that FM timeliness could influence user satisfaction, word-of-mouth, and collaboration. Davidow [20] and Estelami [44] established that timeliness has a significant impact on satisfaction and word-of-mouth. Improving FM service quality dimensions such as responsiveness to feedback will increase FM performance [68].

> "Anyways we always discuss the facility managers issues because their activities and facilities provided are not encouraging" (SE10)

> "Of course. Since I am the user of the system, I will do that with pleasure; to collaborate and give timely response if the facility managers too will respond promptly". (AS22)

3.1.3. FM Redress

FM redress is the outcome(s) the users receive from the facility managers responding to their complaints. Redress deals with the distributive justice, which is a measure to ascertain the fairness of the decision outcome. Most of the participants expressed their dissatisfaction with FM redress to their post-occupancy feedback. They complained that the facility managers' redress has not met their expectations. The observation and interviews revealed that according to users, most of the facilities' problems that they had complained about have not been corrected. Additionally, they opined that when facility managers address facilities problems, sometimes the situation remains the same or is worsened. The participants believed they should be involved in the day-to-day evaluation of the facilities, and their inputs should be considered during FM decision making. This aligns with Hua [2] who argued that users should be integrated in the POE decision making. Further, participants indicated that the quality of FM redress may depend on providing feedback directly to the facility managers.

> "So yes, when you are not involved in the decision making, you cannot say something has improved or the other way around". (SE05)

> "Of course, that aspect may also be worrying your productivity and it becomes a problem, or you end up reporting to the wrong person who may not have the chance to do anything about what's happening". (SE01)

The result shows the need for effective interactions between facility managers and users in addressing post-occupancy issues. As stated by Abisuga et al. [69], there is a need for a collaborative FM approach in the evaluation of facilities performance such as POE.

3.1.4. FM Apology and Explanation

An FM apology refers to the facility managers' acknowledgement of users' distress, whereas an FM explanation is the willingness of the facility managers to explain the reason behind the problem that caused the user complaints. Apology and explanation are grouped under interactional justice, which is the empathetic treatment during the communication

process. The findings revealed that facility managers should provide a convincing apology and explanation when FM services fail to meet user expectations. This is to show that facility managers are genuinely concerned with user needs and acknowledge the limitation of the FM in meeting such needs in a timely manner. This gesture could positively affect the facility manager–user relationship satisfaction.

> "Subsequently if people are complaining and they don't really know if those things are addressed, then FM should be able to let people know why they can't address them. Like bear with us if it is in terms of finance, there should be motivation, good communication with clients". (PS26)

Further, few participants agreed that facility managers sometimes give an apology and explanation, and even when they did, participants were dissatisfied with such an apology and explanation. The participants complained that facility managers are not always sincere in fulfilling their promise to resolve some facilities problems reported.

> "They don't usually give reasons or apology. They will say they haven't approved the budget. The only reason they usually give is that they don't have the adequate fund to carry out all maintenance". (SE11)

> "Yes, they would explain and sometime apologise, with no solution". (SE04)

The above findings indicate that some of the basic constraints that influence FM performance reflect in the way facility managers respond to feedback, and the gap between facility manager–user communication negates shared understanding that results in dissatisfaction. Facility managers need to further improve their relationships with the users to foster collaboration by apologising and providing credible explanations. This suggestion conforms with Karatepe [33] who said that a proper explanation can actually foster productive interactions between the customers and service providers. This research indicates the need to improve interaction justice within the case area. That means the facility managers in charge of the faculty building should be more empathetic in interacting with end-users.

3.1.5. FM Attentiveness and Effort

FM attentiveness is the interpersonal communication between the facility manager and the user, whereas FM effort is the amount of time and energy spent by the facility manager to resolve a complaint. Attentiveness and effort are also grouped under interactional justice. The research findings indicate that facility managers do not usually give adequate attention and efforts in resolving user feedback.

> "Most of them just do things without considering users' feelings or thoughts". (SE03)

> "We have so many reports on this, but they have not responded. We still expect the management to act on them, it is discouraging". (PS25)

Importantly, the findings point to the fact that a lack of FM attention and efforts in resolving user feedback can negate facility manager–user collaboration. As stated by Davidow [20], attentiveness has a positive significant relationship with customer satisfaction and repurchase behaviour. The finding implies that facility managers need to give adequate attention and efforts to address user post-occupancy feedback to encourage user participation in the evaluation of facilities performance.

> "If someone complains about something and less than one week it is done, . . . people can see that if I talk, someone is listening, then we can collaborate with them". (PS27)

To explain the FM response further, a word cloud was generated based on the number of references indicated under the FM response dimensions extracted from the interview using NVivo Pro (refer to Table 4). As shown in Figure 5, facilitation, redress, timeliness, apology and explanation are important FM responses. Facilitation is the most frequent

matter raised by the participants, implying that FM facilitation has a strong potential to influence the relationship between facility managers and users. Our findings reveal that FM facilitation is poor due to unclear modes of communication, lack of FM policy and guidelines for feedback reporting and difficulty in accessing FM personnel. These findings support Schoenefeldt [3] and Odediran et al. [66] that FM organisation lacks policy implementation and effective communication with stakeholders. As mentioned earlier, service providers, who have established written customer feedback handling policies and procedures, encourage customer feedback and can make improvements from it [35]. Therefore, it is important that facility managers in charge improve the procedure of communicating the day-to-day facilities performance.

Figure 5. Word cloud for FM response dimensions.

Another key point is to understand how facility managers are redressing feedback. FM redress is mainly achieved by corrective or preventive actions, such as repairs and replacement. The findings indicate that FM redress is essential to foster user satisfaction, thus, appropriate redress should follow user post-occupancy feedback in a timely manner. Most of the participants indicated that they were dissatisfied with the current mode of FM redress. This is because most time user inputs are not considered in the redress process, and most FM decisions are not user-centred. We also observed that there are some user requirements that maybe difficult to be redressed by the facility manager. According to the previous POE results of the building and the consultant's recommendations, such requirements can only be redressed through a massive remodification of the building. This implies that building design and characteristics could limit some FM redress and negate the fulfilment of user requests.

Some participants believed that facility managers were not responsive enough in handling their requests. However, it is essential to note that FM timeliness is influenced by many factors such as the nature of requests and the availability of funds. It was noticed that facility managers were not proactive in redressing post-occupancy issues such as indoor temperature and illumination in some sections of the building. The timely redress of user post-occupancy feedback related to the building design including inadequate office and toilets spaces and noise control are difficult. Another example of user feedback that was not proactively resolved was the provision of a portable water and kitchenette in post graduate students' study spaces. The installation of the portable water and kitchenette involved redesigning and remodification which required planning, and had cost implications. Facility managers in charge of the building need to inform the users about any limitation influencing FM timeliness.

The participants claimed that the facility managers were characterised with an unconvincing apology and explanation. Additionally, sometimes facility managers were not polite and respectful in responding to user feedback. The findings reveal that facility man-

agers lack the willingness to assist users and sometimes do not pay much attention to user requests. Despite the importance of facilitation, redress, timeliness, apology, explanation, attentiveness and effort and their impact on feedback satisfaction, the current FM response to user feedback was deemed inadequate. The FM response is important to maintain facility manager–user collaborative relationships. As the appropriate handling of user feedback could encourages more user's participation in day-to-day evaluation of facilities performance. The findings of the research support the hypothetical framework in Figure 2, indicating that FM responses corroborate organisational response criteria including facilitation, timeliness, redress, apology, explanation, attentiveness, and effort stipulated in previous studies. Besides, the findings provide new insights into the importance of FM responses to user post-occupancy feedback and a new insight that requires further research.

3.2. User Post-Feedback Behaviours

The second part of this section addresses the research question two on how facility managers' responses to user feedback influence post-feedback behaviour. The questions asked during the interviews were based on the idealised FM operational items of post-feedback behaviour dimensions in Table 2. According to the hypothetical framework in Figure 2, it was envisaged that there could be interrelationships between FM response dimensions, satisfaction, and user post-feedback behaviours (word-of-mouth and service acceptance) as discussed below:

3.2.1. FM Relationship Satisfaction

FM relationship satisfaction is the users' overall feeling with the way a facility manager handles their post-occupancy feedback. In the case study, participants indicated dissatisfaction with their relationship with the facility managers. Participants majorly complained about facility managers' neglect of users' participation, poor communication, and facility managers' reactive nature.

> "I agree to that because I am not part of decisions. Honestly, we have some suggestions to give about the facilities, but we are not asked". (SE02)

> "Oh, relationship between us and those facility managers is not good. I don't think collaboration will be easy". (SE03)

Ogbeifun et al. [70] stated that FM units lack customer relationship management because they have not been able to meet user needs and do not possess effective communication skills. Relationship satisfaction is essential for fostering collaboration [71] and based on our results, there is a need to improve facility manager–user relationship satisfaction to foster collaboration in the day-to-day evaluation of facilities performance. Importantly, the level of relationship satisfaction could influence post-feedback behaviour [18].

3.2.2. FM Services Acceptance and Word-of-Mouth

FM service acceptance is the willingness of a user to continuously utilise the facilities provided. Some of the participants were satisfied with the FM services provided, but they believed better FM services are needed.

> "Yeah, I like the facility provided. Yes, I believe they can do more and better. There are lots of things they can do better, and they can do more". (C1-SE03)

> "We keep using some of the facilities because we got no other choices". (PS25)

Word-of-mouth is the information that people tell each other without being put in writing. In the case study, some of the participants engaged in both positive and negative word-of-mouth concerning the performance of the facilities. The findings showed that participants expressed their grievances negatively among themselves, and within and outside the institutions. This outcome aligns with Kwun et al. [47] who found that FM service quality has a positive significant impact on word-of-mouth intention.

"It is going to be like a compliment in 1,2,3 scenarios where an emergency alarm tripped up. But, I do express my dissatisfaction with colleagues". (C1-AS04)

To explain the post-feedback behaviour further, a word cloud was generated based on the number of references indicated under the post-feedback behaviour dimensions extracted from the interview using NVivo Pro (refer to Table 4). The word cloud visualisation revealed that the issues of facility manager–user relationship satisfaction were the most referenced dimension, followed by FM service acceptance and word-of-mouth (see Figure 6). It seems that users are concerned with their relationships with the facility managers. The users also expressed their dissatisfaction with the performance of the facilities in the institution. Poor facilities performance has the potential to cause users to reject the FM services provided [48], which negatively influences the relationship satisfaction between the users and facility managers. According to Stauss [72], customer dissatisfaction negatively influences relationship satisfaction and repurchase intention. Repurchase intention, in this case, is FM services acceptance, that is, user willingness to continuously utilise the facilities. It is also a known fact that dissatisfaction leads to negative word-of-mouth.

Figure 6. Word cloud for user post-feedback behaviour dimensions.

In order to establish the relationships between the dimensions, NVivo Pro was used to create a visualised circle graph indicating the similarity between the FM response dimensions and their impact on users' post-feedback behaviours. These similarities are indicated by connecting lines of varying thickness and colour. The similarity and dissimilarity are indicated by blue lines and red lines, respectively, whereas the thicker the lines, the stronger the similarity or dissimilarity (see Figure 7). The findings indicate there are possible interrelationships between the dimensions. For instance, a similarity relationship exists between relationship satisfaction, FM service acceptance and word-of-mouth (WOM). This finding shows that customer satisfaction could influence word-of-mouth and intention to repurchase [18,35,37]. According to Figure 7, there is a strong similarity between relationship satisfaction and FM services acceptance. There is also an indication of a strong relationship between an FM apology and explanation and FM attention and effort. Other similarities also exist between relationship satisfaction and FM facilitation; between FM timeliness and FM attentiveness and efforts; between FM redress and FM attentiveness and efforts; and between word-of-mouth (WOM) and relationship satisfaction. Dissimilarities in opinions also exist between the dimensions. Dissimilarities occur between FM services acceptance and FM apology and explanation; FM timeliness and FM apology and explanation; relationship satisfaction and FM redress; relationship satisfaction and FM timeliness; and FM services acceptance and FM attentiveness and efforts.

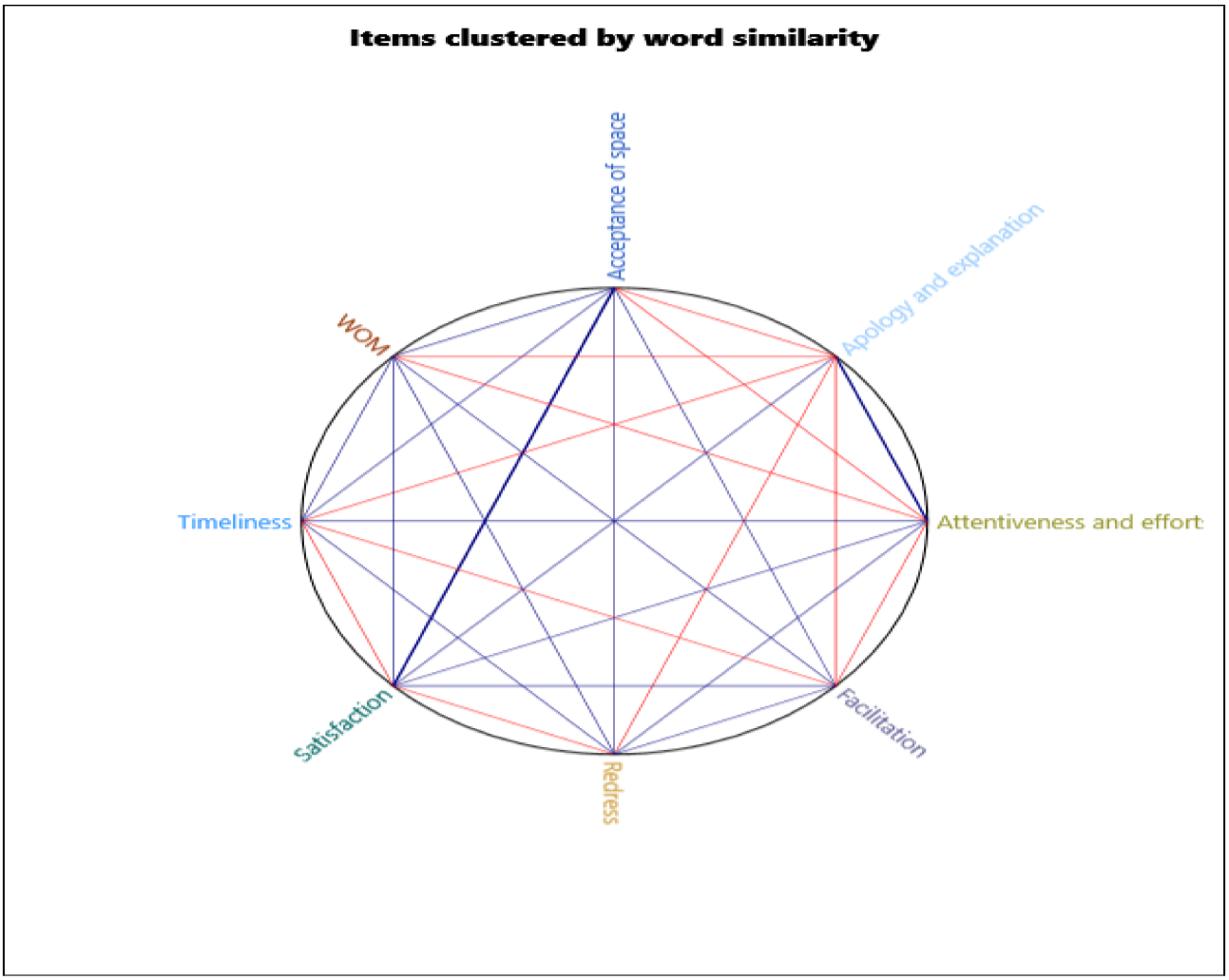

Figure 7. Word similarity of FM response dimensions and post-feedback behaviours.

User opinions about FM apology and explanation may not result in their satisfaction with FM services. This finding supports Einwiller and Steilen [45] and Ali et al. [46] that expressing regret or apologising alone does not have a significant impact on customer satisfaction, and their intention to repurchase the products. Facility managers should be more stakeholder friendly in handling user post-occupancy feedback. Further, facility managers should endeavour to render quality services to foster user satisfaction, word-of-mouth (WOM) and acceptance of FM services. This buttresses Coenen et al. [73] that the fulfilment of user expectations has a significant effect on user satisfaction. These findings show further evidence to the possibility of interrelationships between FM responses and user post-feedback behaviours, as indicated in the hypothetical framework in Figure 2.

The similarities and dissimilarities in the opinions of participants affirm the complexity of users' expectations. This aligns with Davidow's [20] argument that the customer will evaluate the service provider response in relation to the final outcome of the problems encountered. The difference in relationships between the FM response dimensions and user post-feedback behaviours could be due to certain factors such as user perception and FM approaches. This needs further investigation. In addition, the similarities and dissimilarities in the opinions of the users established in this research provoke the need for further quantitative approaches to confirm the causal relationships between the dimensions. Although research on user post-feedback behaviour in evaluation of facilities performance of HEIs context is rare, these findings channel a constructive avenue of future investigation to enhance the effectiveness of such practices in FM.

4. Conclusions

This research was set within the context of organisational justice and response in the FM of a faculty building in an Australian university to address the lack of FM research into how facility managers handle user feedback and post-feedback behaviours. Achieving this, two research questions and a hypothetical framework were formulated to postulate possible relationships between FM response dimensions and user post-feedback behaviours in the day-to-day evaluation of facilities.

In answering research question one, the findings indicate that FM responses, including facilitation, timeliness, redress, apology and explanation, and attentiveness and efforts are potential effective techniques by which the facility managers can meet customer services responsibilities, particularly in HEIs. The case study result shows that FM responses to user feedback is poor, and there is a need to improve it. This can be achieved by the provision of effective means of communication, a clearly defined FM policy and procedures, acceptable FM redress, giving sincere apologies and credible explanations, and paying attention to and extending effort to resolve user needs. Some organisational barriers that could influence FM responses such as funds and availability of materials were highlighted. Based on the findings, it was suggested that facility managers need to be more user-friendly in their approach to foster collaboration in the day-to-day evaluation of facilities. Facility manager–user collaboration will facilitate the collection of user-centred information to inform existing and future design. It is essential for facility managers to develop institutional policy guidelines that stipulate their functions and how other stakeholders should relate with FM functions.

In answering research question two, the findings revealed that there are possible interrelationships between FM response dimensions and user post-feedback behaviours. It was shown that inadequate FM responses could negate facility manager–user relationship satisfaction, FM service acceptance (i.e., continue using the service) and positive word-of-mouth. Our results also established the fact that facility manager–user relationship satisfaction to some degree impacts the level of FM services acceptance and word-of-mouth. Furthermore, the research revealed that an improved facility manager–user satisfaction relationship can culminate to facility manager–user collaboration in POE. Facility managers should ensure that user feedback is properly handled to foster user participation in POE. This will advance the POE process in generating user-centred facilities performance data that can be employed to improve existing facilities and inform future design. In particular, our research contributes to the literature in FM organisational justice and responses, and post-feedback behaviours within FM research and practices by highlighting the importance of the need for appropriate user feedback handling by facility managers in the evaluation of facilities performance. Additionally, the research indicates the suitability of organisational justice and response to inform FM practice. This research supports the adoption of FM facilitation, FM timeliness, FM redress, FM attentiveness and effort and FM apology and explanation to measure performance of facility managers. It also positions FM services as a service organisation, particularly in educational settings.

The facility manager–user relationship would improve if the facility managers could adopt the organisational response dimensions in relating with the users during the post-occupancy phase. The practice of an acceptable FM response such as the provision of FM facilitation would support direct interaction between the facility manager and the user. This contributes to the efficient and effective practical way of improving user participation in providing post-occupancy feedback, and user involvement in FM decision making, particularly in managing educational facilities. The FM response framework has the potential to improve FM performance, increase user satisfaction and increase FM services acceptance. Acknowledging the inherent limitations of a case study approach, our small sample, and the complexity of FM and the relationship with the different user groups in the organisation, FM practices, diverse FM services provided, characteristics of the building, and the influence of institution management, further research is clearly needed to understand the impacts of FM responses on user post-feedback behaviours. Further research could

examine larger samples in a single or multiple higher education institution(s), and in other facilities such as residential and commercial buildings. This research has also provoked the need for a quantitative research approach in establishing causal relationships between FM response dimensions and user post-feedback behaviours.

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