

Assessing User Satisfaction with Facilities in Medium-Cost Strata Residence

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ABSTRACT

Strata residences require more intensive facilities management than landed residences due to the shared common properties between strata owners. However, despite the establishment of the strata building sector, there is still a lack of clarity on what constitutes 'good facility management'. This study aimed to assess resident satisfaction with strata residence facilities. The research design employed a quantitative research method, involving the administration of questionnaires to gather the required data from residents. The findings of the research indicate that enhancing the satisfaction of strata residents is achievable through a comprehensive understanding of their expectations, identification of areas within service delivery requiring improvement, and subsequent implementation of appropriate changes. Management corporations could identify areas of service delivery that needed improvement and make changes to enhance the satisfaction of strata residents.

INTRODUCTION

Strata residences were introduced in the mid to late 1970s to meet the increased housing demand as Malaysia transitioned from an agricultural to a manufacturing-based economy. Developers began to build upward as development land in the city became scarcer and more expensive. A variety of strata residences have been provided in terms of price and type to cater to different buyer profiles (Hamzah & Abdullah, 2018). As the practice of living in a strata unit becomes more popular among city dwellers, various lifestyle adjustments are required to adapt to vertical living. Furthermore, strata residences necessitate more

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intensive facilities management, which is less noticeable in landed homes. Professionals in managing strata residences are required because the project's scope has expanded to include not only individual units, but also common properties shared by strata owners (Hamzah & Abdullah, 2018).

According to Ogunbayo et al. (2018), in the absence of meeting users' needs in housing design and service provision, user satisfaction significantly declines, particularly in available facilities. The quality or adequacy of facilities plays a crucial role in determining overall user satisfaction. Hence, it is necessary to perform periodic maintenance to determine its level of soundness to avoid failure in use. Additionally, inefficiencies in management bodies result from a lack of knowledge and experience, resulting in poor service quality. Despite its establishment in the country, there is still a grey area on what constitutes 'good facility management'. As a result of the joint management body's poor service quality, buyers and tenants are reluctant to pay the monthly service charges (Khalid et al., 2017). The degree to which residents believe their housing assists them in achieving their goals is reflected in residential satisfaction. Based on their needs and aspirations, it measured the disparity between occupants' current and desired housing and neighbourhood situations. The occupants will not be satisfied by the maintenance of a built facility alone, though it is one of the criteria (Gopikrishnan & Paul, 2017). Facility management (FM) can contribute to performance by managing the client's initial expectations and managing the client's perception of the service from the client's point of view (Riratanaphong & Limjaroensuk, 2020).

This study's objective was to investigate the residents' satisfaction towards facilities provided in strata residences. The outcomes of this study contribute valuable insights for management to grasp residents' expectations of effective FM. Recognising the subjective nature of user satisfaction, influenced by socio-economic backgrounds, highlights the need for a standardised approach nationwide, particularly in strata residential setups. By gaining a deeper understanding of user expectations, joint management bodies (JMB) or management corporations (MC) can trace areas requiring improvement in service delivery. Ultimately, this study paves the way for a more responsive and resident-centric FM approach.

LITERATURE REVIEW

This literature review focuses on four interrelated topics: strata residence, challenges in managing shared facilities, user satisfaction, and facility management (FM). These topics have become increasingly important in recent years due to the rise in popularity of strata living in Malaysia.

Strata Residence

Due to the scarcity of urban land, high urban land prices, and persistent demand from the city's population, strata properties characterise real estate development in most major cities. Prices of terraced, semi-detached, and detached houses have risen beyond the reach of the average Malaysian in city areas, making strata residences a more affordable type of housing than landed types. Strata residences in Malaysia range from low-cost (low-cost flats, flats, and apartments) to high-end (serviced apartments, condominiums, and luxury apartments) (Hamzah & Abdullah, 2018).

A strata residence has its own facilities and common property, such as corridors, swimming pools, elevators, playgrounds, and multipurpose halls that all residents can use at the same time. It is necessary to maintain the facilities provided in strata residences. As a result, each strata residence required one internal management body (Samad et al., 2018). The perks of living in a stratified residential are the ability to enjoy various facilities provided. However, all the services provided are based on the concept of sharing. As a result, owners of strata residences are required to pay maintenance fees (Wahab et al., 2017).

Some people prefer to own a strata unit, particularly a condominium, because of the luxury of the extensive facilities and services offered, as well as the high prestige bestowed on this new modern living concept. In contrast, others are forced to buy high-rise units because they cannot afford landed housing

(Zan et al., 2018). There are various key terms in strata residential that are alien to landed housing. Since one stratified building may consist of up to hundreds or even thousands of housing units shared on a piece of land, it is crucial to have these terms to specify and create definitions and guidelines to understand the residential concept better.

The concept of Share Units was introduced through the Strata Titles Act 1985 (Act 318), requiring maintenance and management fees to be proportionate to the "Allocated Share Units." Unfortunately, the Act lacks a comprehensive explanation of the Share Unit formula's establishment. Share Units, defined as numbers assigned by the developer's licensed land surveyor to each parcel, play a crucial role in determining maintenance charges, sinking fund contributions, and other expenditures equitably among parcel owners (Zan et al., 2018). Each parcel is assigned a specific share unit, clearly indicated on the strata plan. Notably, a penthouse owner, having more significant share units, enjoys additional voting rights compared to an owner of an intermediate unit. Consequently, parcel owners with larger share units incur higher maintenance fees (Zan et al., 2018).

Challenges in Managing Shared Facilities

The management body plays a crucial role in overseeing both the physical building and common areas, ensuring the proper maintenance and management of shared facilities (Azian et al., 2020). In strata residences, regardless of property market value and size, the challenges faced by the management are similar. However, the intensity of the challenges faced may differ depending on how efficient the management system is. Musa et al. (2020) revealed that challenges in vertical residential management include improper assessment of maintenance management procedures, issues regarding service charges in vertical residential buildings, poor management of the sinking fund, lack of integration between the management and residents, and vandalism and public nuisance.

Improper assessment of maintenance management procedures includes defects not being addressed on time, poor workmanship, and facilities and services that are not in good working order despite taking over from the developers (Musa et al., 2020). Condition-based maintenance is not a preventative approach to maintenance. In the best-case scenario, a condition-based maintenance strategy represents the physical state of the building when the survey was conducted. Meanwhile, the approach is a critical factor in providing adequate maintenance. The physical state of a structure is merely a result of defects, deterioration, decay, or their combination. Maintenance is not considered a factor of production under current methods for dealing with building maintenance, which leads to the breakdown of the building management process (Jones & Sharp, 2007).

One of the key challenges encountered by the management body in overseeing strata residences is the non-payment or arrears in maintenance fees. This issue not only leads to delays in essential maintenance work but also contributes to resident dissatisfaction (Azian et al., 2020; Mohd-Noor et al., 2011). This issue must be addressed; if not, it will become more severe as more buildings disintegrate due to poor administration and maintenance. In Malaysia, the Strata Management Act (Act 757) should also be familiarised with to ensure that owners pay the maintenance fee and are appropriately handled by the management. In addition, it is stipulated under the laws that the management is responsible for providing payments for insurance, refurbishment, cleaning, maintenance, lighting in public areas and other costs (Mohd-Noor et al., 2011).

Mohd-Noor et al. (2011) argue that developers often leverage the sinking fund as collateral to secure a bank overdraft. They suggest that the Strata Title Act 1985 (Act 318) needs reclassification to delineate the appropriate use of the sinking fund. The authors also highlight a lack of regulations to ensure that property developers and administrators overseeing controlled funds comply with legal requirements. Musa et al., (2020) urged that the management should keep legitimate records that ought to be audited by recognised accountants and the outline of the income and expenditure must be shown in a noticeable place in the building.

One of the issues that strata owners have expressed is their inability to obtain information about their strata scheme (Musa et al., 2020). People had the most trouble accessing information about building plans, construction work, and the scheme's finances. The strata managing agent was the main source of information for strata owners about their strata scheme. Furthermore, many executive committee members have had trouble getting the information they need to make good decisions on their strata schemes. The most common challenges were obtaining sufficient information from their managing agents and receiving high-quality, consistent advice (Easthope et al., 2012).

Vandalism may affect the property in such a way that facilities used by everyone in the group, such as parks and public restrooms, become noticeably inaccessible and dangerous. The management company for all vertical housing properties in Malaysia is often required to purchase Master Policy insurance, which covers vandalism and vindictive acts, fire, lightning, windstorms, exposure, and strikes. Because of the type of tenants in the building, which includes a lower-income community of people and those who lack mindfulness in building maintenance, vandalism cases are more common in low or medium-cost flats or apartments in Malaysia (Musa et al., 2020).

User Satisfaction

In delivering services, user satisfaction is one of the key measures to define the quality of service. User satisfaction is a subjective field, as different users may have different expectations of what a service can and will deliver. User satisfaction in the context of FM is no different, the management body is the service provider, and the building occupants and visitors are the users. JMB or MC's role is not only to ensure smooth operation and management but also to meet users' expectations. This can be a service delivered to meet the users' needs. User satisfaction is also heavily influenced by social status, wealth, and educational background. Generally, when the management charges more money, the user will also expect a better FM to be provided. When not met, dissatisfaction arises among the users, reflecting on the quality of service delivered.

According to Musa et al. (2020), the housing structure, facilities, and utilities are physical components, whereas the social components affect families, neighbourhoods, and communities. As a result, having a satisfactory housing situation is one of the most important factors affecting human life and reflects the residents' living quality. It is necessary to address the issue of inefficient and ineffective maintenance support. When poor administration and maintenance are left unchecked, dissatisfaction among the residents will soon arise. Additionally, good management system practice portrays the image of the building and the quality of service delivered by the management (Musa et al., 2020).

The most accurate indicator of a built facility's performance is end-user satisfaction (Gopikrishnan & Paul, 2017). Housing satisfaction is a complex concept that includes not only satisfaction with the dwelling unit but also satisfaction with the neighbourhood and the surrounding area. It is influenced by various factors such as age, marital status, number of children, family size, and socio-economic status. According to Gopikrishnan & Paul (2017), satisfaction is a subjective assessment of a product's or service's ability to meet a user's or customer's needs and expectations. Satisfaction is measured by the difference between the actual and expected performance of products or services in meeting their needs and expectations.

Ogunbayo et al. (2018) seem to have a similar opinion as Gopikrishnan & Paul (2017). Facilities, as a building component, require frequent maintenance or checks to determine their level of soundness, which is required to avoid failure in use. Most of the time, the type of facility provision in a property determines the status of people who live or work there, as well as their level of satisfaction. Besides, the importance of facilities in the housing environment cannot be overstated because they are one of the most crucial aspects of housing development.

According to Riratanaphong & Limjaroensuk (2020), when comparing a product's perceived performance with expectations, satisfaction is an overall psychological state that reflects a customer's level of approval. There are three levels of classification: (1) dissatisfaction: perception is lower than expectation;

(2) satisfaction: perception is equal to expectation; and (3) high satisfaction: perception is higher than expectation. FM can contribute to performance by managing the client's initial expectations and managing the client's perception of the service from the client's point of view. Many researchers consider satisfaction to be an all-encompassing measure, while others believe a combination of facets or attributes best describes it. While some say it is difficult to measure dissatisfaction, others say that comparing a product's perceived performance results in a feeling of pleasure or disappointment (Seshadhri & Paul, 2017).

Seshadhri & Paul (2017) also argue that residential building users and occupants are not required to be technically knowledgeable about building engineering. The various construction processes, such as initiating, planning, executing, monitoring, controlling, and finally closing, all serve to translate the user's requirements into a structure. The genesis of any project is the owner's requirements. There is a need to obtain a holistic measure of user satisfaction to assess whether the users' needs have been met and to plot the trend in changing user aspirations. To reach a high level of satisfaction among the users, the service provider shall have a clear view of the customers' expectations. From this initial expectation, the developer, JMB or MC can design and provide facilities for the buyer's needs. This can ensure all facilities are utilised and not left obsolete.

Maintenance fees and sinking funds charged to the tenant, user, and occupants play an essential role in maintaining the facilities. If the facilities provided have no importance to the residents, this may somehow influence the compliance to paying the charges to the management. Low compliance means less money, resulting in poor facility maintenance that may deteriorate quality and performance and cause dissatisfaction to the user who uses the facilities provided. Not only the targeted user is not satisfied with the facility built, but the user who takes the facility as useful may be dissatisfied too with its performance.

Facilities Management

FM "integrates people, place, and process within the built environment to improve the quality of people's life and the productivity of the core business" (Atkin & Brooks, 2021, p.4). This includes space management, sustainability, occupant comfort, maintenance, and operation. In Malaysia, the designation of a facility manager within a JMB or MC can vary based on the structure and preferences of the particular property development. Typically, a facility manager may be part of the property management team employed or contracted by the management. However, the JMB or MC may oversee these vital aspects. Yet, the purpose of building facilities is to aid in achieving a building's performance in terms of thermal comfort, sound control, security, sanitation, fire protection, lighting, and ventilation (Sia et al., 2018).

FM is a multi-disciplinary process that mainly comprises building maintenance which provides the necessary services for the built environment to support an organisation's missions and improve occupant comfort (Besiktepe et al., 2020). FM and asset management differ significantly, with FM placing a greater emphasis on people and enhancing the quality of life (Atkin & Brooks, 2021). In the context of the organisation's mission in strata residences, it is common to ensure functionality so residents' comfort is maintained, reflecting the efficiency of the JMB or MC, which may boost the reputation and attract more potential buyers to the premise.

Facilities in strata residential may include a swimming pool, 24-hour security system, children's playground, multipurpose hall, car and motorbike parking, café, convenience store and gymnasium. These facilities affect the property value; more facilities available means higher property value and associated maintenance fees. High-cost strata residential typically have more facilities compared to medium-cost and low-cost strata. In high-cost strata residences, the focus is on providing luxurious amenities and premium maintenance services to meet the expectations of affluent residents, while in medium and low-cost strata residences, the emphasis is on essential amenities and cost-effective maintenance solutions tailored to accommodate residents' financial.

RESEARCH METHODOLOGY

Data were gathered during the early stage of the coronavirus disease (COVID-19) endemic in 2022, restricting close contact with the public to minimise the risk of infection and spread of the virus. Questionnaires seem to be the ideal method for gathering data and hence, the online survey was distributed without requiring the respondent to have direct contact with the researcher. The questionnaires consisted of a series of questionnaires with multiple-choice answers and an open-ended question to gather primary data from the respondents. The questions included the demography, the satisfaction levels in specific areas, i.e., safety and security within the residential area; cleanliness of common areas; maintenance of the landscape; adequacy of parking spaces; maintenance of the sewage system; firefighting services; promptness of management in attending to complaints or enquiries; effectiveness of the complaint system; and expectation of service and facilities provided. Respondents were also asked for their suggestions to improve the current facilities management at their residence. By using the same options for all respondents, the survey results could be controlled and minimise any discrepancies between respondents from different backgrounds.

There are two (2) categories of resident population: the unit's owner and the tenant of two (2) selected strata residences. This is to ensure that everyone who resides in the building can give their opinion on the facilities provided by the management. Both strata residences are categorised as medium-cost apartments, located in Bandar Sunway, Selangor. Residence A (RA) is a medium rise, located in PJS 10, while Residence B (RB) is a high-rise in PJS 8. Nevertheless, both residences are outfitted with amenities including a swimming pool, changing room, parking, children's playground, and a court. Due to limitations in time and resources, a non-probability sampling method was employed, gathering data from 10% of the population in each residence.

The Likert scale was employed in the study to gauge user satisfaction with facility management in their strata residential, and the interpretation of mean scores is presented in Table 1.

Table 1. Mean score interpretation

Mean score	Interpretation of mean score
1.00 – 1.79	Very low
1.80 – 2.59	Low
2.60 – 3.39	Medium
3.40 – 4.19	High
4.20 – 5.00	Very high

Source: Authors, 2024

FINDINGS AND DISCUSSION

The results were analysed from the questionnaires distributed to the residents of RA and RB to measure user satisfaction with facilities in strata residences. Respondents' demographic shows that the household income of the RA majority population is in the RM7,001 - RM8,000 income group while the RB majority population is in the RM2,001 - RM3000 income group. RA population's highest income group is within the > RM10,000 income group while RB is at RM6,001 - RM7,000.

In general, RB respondents are more satisfied with the facilities provided, although there is not much difference in satisfaction compared to RA residents. Based on the data analysis, both residences mainly obtained medium and high mean scores across various sections, rather than reaching very high scores. This

indicates that there is considerable potential for improvement in the service delivery of both management bodies.

Table 2 shows that RA and RB have different satisfaction mean scores across the various attributes considered. The mean score is a valuable tool for comprehending average response or measurement within a given dataset.

Table 2. Mean scores of user satisfaction towards facilities provided in strata residence

Variables	Residence A (RA)	Residence B (RB)
Safety and Security	3.72	3.69
Cleanliness of the common area	3.31	3.14
Maintenance of landscape	3.19	3.57
Adequacy of parking space	2.69	3.17
Maintenance of the sewage system	3.25	3.31
Firefighting services	2.69	3.77
Promptness of management in attending to complaints	3.00	3.23
Effectiveness of complaint system	2.91	3.23
Service in line with expectation	3.09	3.51

Source: Authors, 2024

In terms of safety and security within the residential area, both RA and RB received high mean scores. From the researcher's observation, both have 24-hour security, gated, and guarded. However, the security personnel are not strict with visitors going in and out of the residence. Yet, security in buildings needs to be enhanced to fulfil the performance (Sia et al., 2018). The lax monitoring of visitors might have led to lower ratings by the respondents. Despite this, overall satisfaction with safety and security was high, reflected in mean scores of 3.72 for RA and 3.69 for RB.

The mean score for the cleanliness of the common area remained at a medium level with 3.31 for RA and 3.14 for RB, suggesting the need for improvement in maintaining cleanliness to meet residents' expectations and enhance the overall quality of life in the residential area. The management is responsible for handling payment cleaning (Mohd-Noor et al., 2011). The inadequate maintenance fee negatively affects building management, as essential maintenance tasks such as cleaning cannot be carried out satisfactorily (Musa et al., 2020).

The satisfaction levels for landscape maintenance in both residences are recorded at 3.19 (medium) and 3.57 (high) for RA and RB respectively. RB exhibits a higher mean score due to a greater percentage of highly satisfied residents compared to RA. Respondents' comments indicate that dissatisfaction primarily stems from the perception that the landscape appears aged and unappealing. Housing satisfaction is a complex concept, involving not only satisfaction with the dwelling unit but also with the surrounding environment (Gopikrishnan & Paul, 2017), including landscaping and parking facilities.

Meanwhile, the mean scores for parking adequacy in RA and RB are moderate, standing at 2.69 and 3.17, respectively. Despite the management offering additional parking spaces for rent, the provision remains insufficient. Consequently, a significant number of residents resort to parking their vehicles outside the residential compound. The severity of this inadequacy is underscored by a notice from the local authority highlighting the issue of excessive roadside parking in RA. Residents in RA, with higher incomes, may have the capacity to own multiple cars within a single household.

For maintenance of the sewage system, the mean score for both residences is at a medium level, with 3.25 for RA and 3.31 for RB. Given that both buildings have surpassed the ten-year mark, the sewage

system might begin deteriorating more rapidly due to inadequate maintenance. The sewage system is part of the building's infrastructure. Hence, it requires regular maintenance or inspections to assess the soundness and prevent failure in use (Ogunbayo et al., 2018).

Firefighting services received a significantly higher rating for RB compared to RA. The mean score for RA and RB stands at 2.69 (medium) and 3.77 (high), respectively. This distinction is likely strongly influenced by the presence of an active firefighting system in RB. Given that RB is a high-rise strata residential building, it is equipped with a more comprehensive array of firefighting elements, including fire extinguishers, sprinklers, and a wet riser. In contrast, RA, being a medium rise, only has fire extinguishers installed in common areas such as the guard house and management office.

Promptness of the management in attending to complaints/enquiries received slightly higher ratings for RB compared to RA. The mean score for both is moderate, with a score of 3.00 and 3.23 for RA and RB, respectively. According to feedback from respondents, both managements are not prompt in addressing complaints, as they tend to take time to attend to each reported issue. The use of WhatsApp as the primary platform for a digitalised complaint system might contribute to delays, as it can be easily overlooked, thereby extending the response time to resident complaints. The effectiveness of the complaint system is moderate for both residences. The mean score is 2.91 and 3.23 for RA and RB, respectively. This reflects the expectations of residents, suggesting that if the FM is not prompt in addressing complaints, the system is unlikely to be effective.

Finally, the level of satisfaction with the service meeting expectations was markedly higher in RB compared to RA. The mean score for RA is 3.09 (medium), whereas RB scores higher at 3.51 (high). The elevated satisfaction level in RB may stem from residents having more realistic expectations from the management, while those in RA might anticipate higher standards than what is being delivered. Satisfaction is a psychological state indicating the level of approval a customer feels (Riratanaphong & Limjaroensuk, 2020). Residents in residential buildings do not need to possess technical knowledge in building engineering to express their (dis)satisfaction (Seshadhri & Paul, 2017). To reach a high level of satisfaction among the users, the service provider must have a clear view of the users' expectations.

Dissimilarities in resident priorities and expectations may have played a role. It is conceivable that RB has implemented more effective feedback mechanisms, leading to higher satisfaction, while RA might not have prioritised user feedback or overlooked critical issues. Additionally, the income of respondents could also influence their expectations of facilities and services. To enhance service quality, understanding user expectations is crucial. Management bodies could employ a simple tool like Google Forms to gauge resident satisfaction, facilitating the identification and fulfilment of specific expectations, rather than relying on assumptions.

CONCLUSION

The variations in satisfaction of facilities provided between strata residences can be attributed to several factors such as differences in management practices, building maintenance, and resident demographics. User satisfaction is subjective and may vary depending on the user's socio-economic background. By understanding the users' expectations, the management can pinpoint areas of service delivered that need to be enhanced. Here, a better FM that suits the residents' needs can be delivered.

Effective FM is crucial for enhancing resident satisfaction in strata residences. This involves integrating people, places, and processes within the built environment, prioritising aspects such as space management, sustainability, occupant comfort, and efficient maintenance. A qualified facility manager can significantly contribute to residents' overall quality of life. FM's focus on building maintenance is essential for supporting organisational missions and improving occupant comfort, particularly in strata residences with various facilities. Strategic FM practices aligning with JMB or MC objectives can enhance the property's reputation,

making it more attractive to potential buyers. Investing in competent facility managers and emphasising FM practices is recommended to ensure resident satisfaction and improve the property's overall appeal. One effective strategy is to ensure that facility managers possess requisite qualifications and expertise to effectively oversee diverse aspects of strata properties, encompassing building maintenance, common area management, and resident communication.

For future research, it is highly recommended to focus on the challenges encountered by management in ensuring that the user satisfaction level towards the facilities provided in strata residences remains at a commendable level. This entails investigating obstacles such as budget constraints, logistical complexities in coordinating maintenance activities, diverse resident expectations, and effective communication strategies amidst a multicultural resident demographic. This exploration can offer valuable insights into potential obstacles and areas of improvement, contributing to the development of more effective strategies for enhancing user satisfaction in strata residential settings. By addressing these challenges, future studies can contribute to the advancement of facility management practices, ultimately leading to higher satisfaction levels among residents.

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CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

AUTHORS' CONTRIBUTIONS

Aznor Eisy Diana Abdullah carried out the research and drafted the article. Wan Zuriea Wan Ismail, Rohaslinda Ramele@Ramli and Mohamad Rachmadian Narotama reviewed the article. Hikmah Kamarudin supervised the research progress and revised the article.

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