

Full Length Research Paper

Service charge issue in Malaysian high-rise residential management: An analysis using a fuzzy conjoint model

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This paper discusses the results of a study on high-rise residential complexes, with particular attention reference to their financial management. The research focuses on service charges, looking at both sides of the management issue, the amount owners pay and the level of service the management provides. Literature and field surveys indicate that this issue follows a circular argument in which both the property owners and the management corporations are contributory. The root cause seems to be financial. Owners' failure to keep up payment leads to a shortage of funds and thus the corporation's capacity to provide quality services, this situation in turn causes dissatisfaction among residents who, consequently, are reluctant to pay the prescribed charges. As a result, management corporations report having difficulty with service charge collection, only 50% of the residential complexes collect half of their fees on time. In addition to the analysis of the difficulties faced in collecting funds, this research also analyses owner satisfaction with service charge collection and complex management systems. The analysis used to analyse the survey is a fuzzy conjoint model, where the results were presented in terms of the linguistic value of 'agree'. The analysis shows that residents were not satisfied with service charge fees and would like to know how their service charges are disbursed. They also admit to a delay in the payment of their fees. The residents admit to making many complaints about service and that they believe that their service charges are disproportionately high relative to the quality of services provided by their property management company. The findings also showed that no standard method exists for determining the rate for service charges in any high-rise housing complex.

Key words: Fuzzy conjoint, high-rise residential complexes, housing management, service charge.

INTRODUCTION

Escalating land prices, particularly in urban areas, makes building high-rise residential complexes more economically practical proposition. Population growth coupled with dwindling land stock makes high-rise living an alternative (Jamila, 1994). Multi-storey residential schemes are therefore seen as appropriate choices when it comes to addressing the mismatch of supply and demand. Such schemes usually take the form of low-cost, medium-cost, or high-cost residential complexes.

High-rise residential complexes are distinguished by three characteristics: individual ownership of a unit,

shared ownership of common property, and collective membership in a corporate body that assumes responsibility for the management of the development. (Christudason, 2004). This makes managing such complexes difficult.

Therefore, a management body is needed to manage the building together with public areas (common property) such as parking lots, lighting, and other common facilities in the building.

Unlike single-owner dwellings, where responsibilities for managing and maintaining the property lie exclusively with the owner, a high-rise residential complex needs to be organised and maintained by a management corporation and thus gives rise to the issue of facilities management (Linariza and Ashok, 2003). Adding to this

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difficulty, owners come from different backgrounds and ethnicities, contributing to the need for proper and systematic residential complex management. This is to ensure that the management serves the interests of the majority of owners while also not neglecting the interests of the minority (Liias, 1998).

According to Ismail (1993), estate management is defined as protecting property interests together with the short-and long-term objectives set by the owners. It also means taking charge of the property's physical maintenance and improving its functioning. The management needs financial resources to provide the services for a residential property. Therefore, each resident is required to pay a service charge, unfortunately, although necessary, collecting this fee is not an easy task. In this paper, we analyse the difficulties encountered by management companies in the collection of these service fees from the managerial point of view.

Issues regarding service charges in high-rise residential complexes

House ownership schemes determine housing management activities. Ownership is classifiable into two types, that is, single ownership and multiple ownerships or one building with different owners. This research focuses on multiple-ownership housing developed both by the government and by the private sector. According to Tiun (2003), high-rise housing management is governed in Malaysia by two main legislations, the housing development (control and licensing) Act (1966) and the strata title Act (1985) (West Malaysia). In 2008, joint management body (JMB) known as 663 is a must to all strata title in Malaysia starting with Kuala Lumpur. This period is a bridging period before management corporation (MC) can be form. Indeed, its help the residents to learn and manage together with the developers before taking over from them (Kerajaan, 2007; S. Ali et al., 2010).

According to Tan and Teo (1990), there are three parts to housing management philosophy, that is, the maintenance management (tero-technology), rental and pledge maintenance and community development management. This aspect was enlightened by Priemus (1999) and Gruis and Nieboer (2004) that housing management comprises of four categories: technical management (such as maintenance and refurbishment), social management, financial management (such as treasurer and rental policy), and ownership management (such as renting, buying, and selling).

Priemus (1999) looked at all aspects, while Ahmad (2003) identified two most important factors which give influence to the effectiveness of facilities management in multi-ownership housing are management and financial. Thus, the present research concentrates on financial and management aspects only. Each building needs to be

managed and maintained continuously to reduce residential damage. Lack of attention to maintenance will contribute to heightened wear and tear (Ines and Jorge, 2002). Tiun (2003) argues that housing management plays an important role in maintenance activities to keep buildings in good condition. Moreover, it is important to make sure all facilities are managed wisely so that they are safe for habitation (Ahmad, 2003). In fact, it is the responsibility of the management corporation, as stipulated in section 43 of act 318, to provide payments for insurance, refurbishment, cleaning, maintenance, lighting for public areas, and other costs (Ismail, 1993). Without adequate funds, however, proper management of high-rise housing will be affected. Fee collection and arrears present the two greatest challenges for any management body (such as developers, local authorities, management corporations, and residence organisations) undertaking the management of a strata housing scheme (Teo, 1993, Liias 1998; Roerup, 1998; Jamila, 1994; KPKT, 1999; JPN, 2001; Mohd Razali, 2001; Sapian, 2003; Tiun, 2003; PKNS, 2004; Eddy, 2004). These problems are more frequent in low- and medium-cost housing complexes.

Since service charge and more specifically maintenance charges and sinking funds are a form of investment expenditure from the owners' point of view, it is paramount to pay attention to the value returned from these investments. Viewed in this manner, home-owners obviously would expect to get the best services out of the fees they pay (Liias, 1998). Although the strata title act was introduced in 1985, home owners' awareness of the importance of service charge payment is still very poor. This is evident from the substantial arrears that have accumulated over the years. Perbadanan Kemajuan Negeri Selangor (PKNS), a housing management body, for example, claimed that their service charge arrears had risen to RM8.1 million by March 2003 (Berita, 2003). Kuala Lumpur city council (DBKL) also, as reflected in its 2004 budget summary, experienced a deficit of RM38 million as a result of unpaid service fees (DBKL, 2004). Tiun (2003) claims that certain high-rise housing complexes have arrears in excess of 60%.

METHODOLOGY

The present research was undertaken as a field survey, conducted in the form of a personal interview, and evaluated quantitatively. In order to gauge the seriousness of the problems caused by the non-payment of resident service fees, respondents were asked a series of questions regarding their own real-life experience. There are three types of answers that lead to the real scenario towards the seriousness of the service charge problems. Respondents were asked to agree, disagree or remain neutral in their responses. The respondents themselves were classified into two related groups, management and the residents of high-rise housing in Malaysia. The first group of respondents was comprised of 57% management executives and 43% assistant managers who are directly involved in the management of multi-ownership property activity. All 108 respondents in this group came from the private sector and

Table 1. Agreement level concerning service charges and relative level of service quality.

No.	Item	Linguistic of agreeable	Weight age
1	The service charge fee is fair with the service quality.	Disagree	0.3802
2	All service charge disbursements were revealed to all residents.	Less agree	0.3410
3	You think that you need to know all disbursements in the service charge.	Highly agree	0.5395
4	You are very alert about the consequences of not having enough funds to maintain and manage the building.	Agree	0.4686
5	Lots of complaints have been made regarding service quality.	Agree	0.4258
6	You have paid the service charge at a higher rate.	Agree	0.4274
7	You always pay your service charge as scheduled.	Slightly agree	0.3913
8	Sometimes you miss paying your service charge.	Slightly agree	0.3914
9	The delay in payment occurred because of you do not have time to pay it.	Agree	0.4205
10	The payment counter should be open on weekends.	Highly agree	0.5790

managed multi-ownership properties in Kuala Lumpur and Selangor. Both the executive and lower managerial groups had at least three years of experience in the field.

The second group of respondents was comprised of 750 occupants who own and/or live in 150 high-rise residential properties in these two cities.

Eighty percent of all high-rise housing complexes in Malaysia are located in Kuala Lumpur and Selangor. As a result, data from these two states can be extrapolated to represent the problems in high-rise residential management in Malaysia generally.

Furthermore, states that have documented stratified houses with first annual general meeting are only available in 4 states including Pulau Pinang. Consequently, this is the rationale in choosing these two states for this research.

Analysis method using a fuzzy conjoint model

A conjoint analysis was used to examine the level of satisfaction of residents with service charge collection for management and maintenance. Conjoint analysis is an overall preference rating for an alternative and can be de-composed into a combination of preferences for each of the component. The fuzzy conjoint model was developed by integrating the so-called “fuzzy” measurement of evaluations into the vector preference model. The fuzzy conjoint analysis used in this study is a method, originally designed by Turksen (1994) and Biswas (1995), used for the analysis of consumer preferences.

The fuzzy conjoint model, as adapted from Turksen, is:

$$\mu_R(y_j, A) = \frac{\sum_{i=1}^T W_i}{\sum_{k=1}^T W_k} \mu_{B_i}(x_j, A)$$

where,

$\mu_R(y_j, A)$ is the estimated overall evaluation, which is a weighted sum of the membership functions of the fuzzy sets that represent the attribute evaluation;

W_i is a crisp attribute “agree” weights (1-7);

$$\mu_{B_i}(x_j, A)$$

Is the degree of membership for respondent l for item A according to linguistic label $y_i = 1, 2, \dots, T$; T is the number of linguistic label; and A is the sum of factors affecting the level of agreement.

In this study, the variable of linguistic for domain element is “agreement”. The crisp weight is a rating of an attribute’s relevance using the Likert scale, ranged from 1: “very disagree” to 7: “strongly agree”, as shown in Table 1.

The membership value degree calculated above, representing the fuzzy set of responses given by respondents, is then compared to the fuzzy set (Biswas, 1995). This can be conducted using the similarity of fuzzy measures based on the Euclidean distance of two fuzzy sets (Turksen, 1994).

Fuzzy similarity degree between two fuzzy sets

There are few formulas to determine the fuzzy similarity degree between two fuzzy sets. This study will make use of the formula of dot product based on the Euclidean inner product formulated by Biswas (1995). The fuzzy similarity degree between fuzzy set R and M is defined as:

$$S(R, M) = \frac{R \bullet M}{\max(R \bullet R, M \bullet M)}$$

Where

$$R = (\mu_R(x_1), \mu_R(x_2), \dots), \quad M = (\mu_M(x_1), \mu_M(x_2), \dots)$$

R, M are vectors. $X = (x_1, x_2, \dots)$

RESEARCH ANALYSIS AND FINDING

The results from the survey of management and residents show several findings:

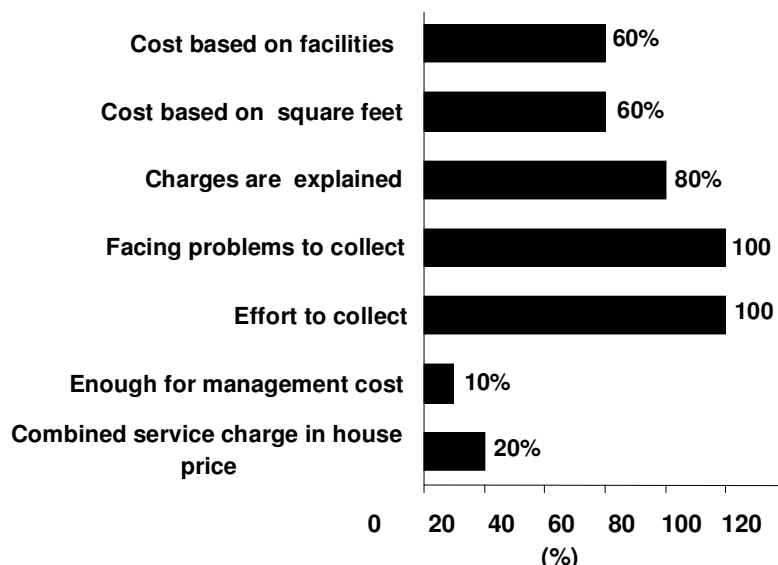


Figure 1. Management responses on service charge.

Management responses on service charge

The results collected in Figure 1 demonstrate that while some management companies charge a standard averaged resident fee, 60% of the management respondents asserted that their resident service charges were calculated according to the management's actual cost for each facility and distributed per square foot. Eighty percent of these managers claim that they have specifically informed buyers of each charge, while 20% neglect to inform the buyer about this charge. According to our survey, all of the management respondents have experienced difficulties in fee collection despite employing various means of collection. In addition, only 10% of managers believe that the fees are sufficient to cover management costs. However, none of the managers were in favour of implementing a lump sum provision in housing prices in lieu of annual service charge payments, despite acknowledging that a solution to the non-payment problem could lie in this approach.

Percentage breakdown of residents paying service charges in housing complexes

The critical financial strain experienced by housing management companies is illustrated in Figure 2. Fifty percent of housing complexes collect less than 50% of the service charges owed to them and no complex collects above 80% of their fees.

Management problems in giving service

Figure 3 illustrates the problems faced by management

companies. An inefficient service is a direct result of the non-payment of service fees by their residents. The result is not simply a lack of services but financial problems for the management companies more generally as mentioned above, the lack of funds makes it difficult for the management to perform their legally mandated activities. The data compiled in Figure 5 shows that 50% of housing complexes obtain less than 50% payment of service charges. To resolve this issue, management bodies need to use their own funds. The problems associated with a management company operating below budget are the reduction of the management service's activities, services not being performed on time, and the inefficient delivery of services. When these occur, residents complain, an illustration of these complaints can be found in Figure 3.

Findings from this study

Several conclusions can be drawn from the data in this study. Management companies have difficulty collecting legitimate service charges from residents and owners.

Residents and owners cite both the poor performance of management's duties as justification for non-payment and the disproportionately high service fees for the quality of services rendered. The result is that management companies are forced to operate below budget, causing them to be increasingly unable to meet residential service obligations. The problems are worsened by the residents' belief that because there is no standard means by which management companies assess service fees, their fees are unfair.

The lack of sufficient funds leaves management companies unable to run their activities efficiently.

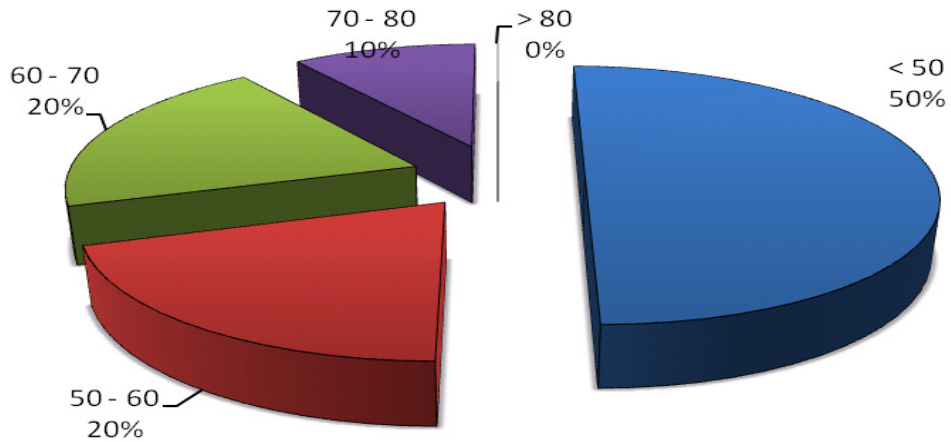


Figure 2. Percentage breakdown of residents paying service charges in housing complexes.

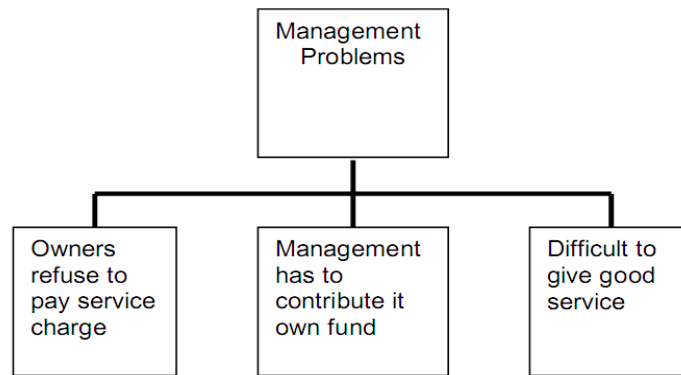


Figure 3. Management problems in giving service.

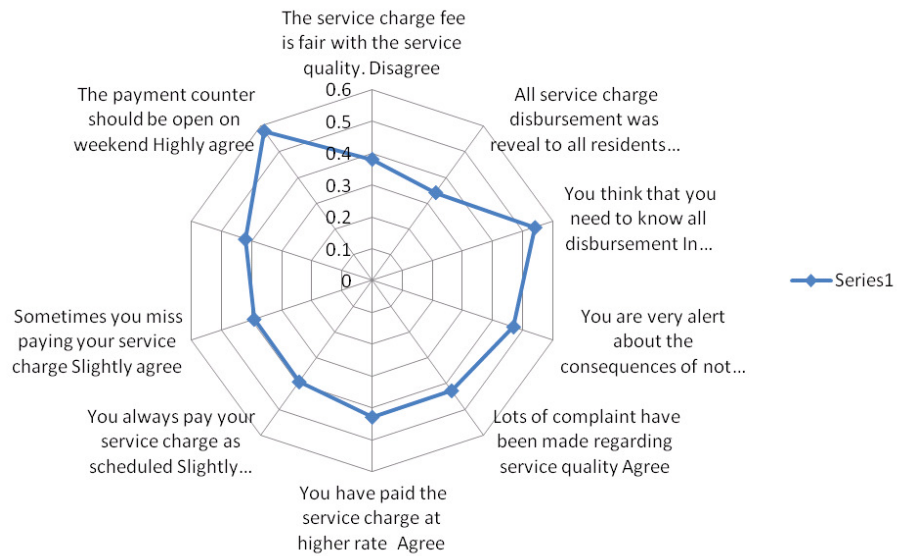


Figure 4. Illustration on respondents' opinions about service charge collection in Malaysia.

According to our research, 73% of owners are in favour of paying the service charges as a lump sum at the time of the initial purchase in order to avoid the problematic task of future collection; however, 80% of management companies oppose the lump sum approach despite seeing the benefits it might provide.

Satisfaction

Table 1 shows the results of our survey of high-rise complex residents and their perception of the factors affecting service charge handling. We can see that residents disagree with the fees charged to them compared to the services given, with score of 0.3802. They also quite agree with their knowledge about the service charge disbursement (0.3410) and strongly agreed that they should know about the disbursement of fees, with score of 0.5395. Our survey showed that residents understood, with a score 0.4686, the consequences of delayed payment for the maintenance activities of management companies, at the same time, these respondents understood, with a score of 0.4258, that many complaints are made about the maintenance problems. The residents also believed, with an agreement rate of 0.4274 that they pay higher rates compared to the quality of services rendered by management companies. Nevertheless, the residents admit to missing payment of their service charges (0.3914) more than paying them on time (0.3913). However, residents agreed that the delay in payment was a result of the payment counter being closed on the weekends (0.4205), and they strongly agreed (0.5790) that payment counter hours should be expanded to include weekend and public holiday hours.

CONCLUSIONS AND SUGGESTIONS

Living in high-rise multi-ownership properties has increasingly become an accepted reality of today's urban society. An important attraction of these properties is the access to facilities, either within its compound or in the vicinity, these facilities may include a swimming pool, indoor game room, or in the more luxurious examples, a gymnasium.

The management companies in charge of these facilities have the responsibility of ensuring that amenities are properly managed and maintained. The residents have to contribute to this maintenance through the payment of service charges. However, fee collection is not easy. Though the strata title act was introduced in 1985 in order to resolve this problem, this legislation has had little impact. In an ideal situation, partnerships and cooperation between residents and management companies would lead to the protection of shared property investments. Such cooperation, however, is not easy to attain, especially in the case of low- and medium-cost

housing complexes. An increasing number of high-rise residential complexes that provide high-end facilities at more affordable prices are appearing on the market. These complexes should bring the possibility of ownership to the middle class. However, middle class buyers may not be aware of the service charge obligation that ownership entails. This may lead to difficulties later on, particularly if the service charge obligations exceed owner means.

A suitable approach that will resolve the conflicting issues implicit with service charge payment and address the problem effectively in the long term is needed.

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