A New Paradigm for Evaluating Performance of Property Management Agents

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Abstract. Mismanagement of multi-owned housing is common in Hong Kong, leading to accelerated building dilapidation and urban decay. While property management agents (PMAs) are usually employed for housing management on the homeowners’ behalf, a simple but theoretically sound measure to evaluate the performance of PMAs has been lacking. This paper reviews the existing measures for PMA performance evaluation. Then, a protocol to evaluate and compare performance of PMAs in Hong Kong is proposed. With regard to the protocol, the performance of a PMA is defined as its achievement in managing the housing development to the satisfaction of the residents and its endeavor to maintain the development in a good condition. The ideas underpinning the protocol and how a PMA’s performance is evaluated using the protocol are detailed. Before the paper is concluded, how the proposed measure for evaluating PMA performance is validated is discussed.

Introduction

In many high-rise Asian cities like Hong Kong, Shanghai and Taipei, the majority of households live in multi-owned housing (MOH) such as apartments and condominiums. In these types of MOH, all homeowners are collectively responsible for the management of the common parts of their buildings. These common parts include entrance lobbies, access corridors, staircases, lifts, service ducts and water pumps. Apart from the use and operation of these physical elements, management of a MOH development also concerns aspects like environmental cleanliness, quietness and security. In many cases, managing a MOH development is not an easy task for homeowners because it often demands professional skills, a lot of manpower and a high level of cooperation among co-owners [1,2]. In view of the very situation in MOH management, various governments and studies have encouraged owners of MOH developments to employ a property management agent (PMA) [3].

In Hong Kong, it is estimated that 60% apartment buildings outsource their management tasks partly or entirely. In general, the rights and responsibilities of PMAs are set out in the law (e.g. the Building Management Ordinance) and the deed of mutual covenant. However, voices that owners may encounter principal-agent problems do exists [4-6]. Very often, PMAs act on their own interests at the expense of the interests of the homeowners. They may make decisions on their own instead of the owners, or they may misuse the financial resources available. These malpractices of the PMAs have been covered extensively by the mass media [7,8]. In this regard, the Hong Kong government proposed to implement a licensing regime for the property management industry so as to further regulate the practices of property management [9]. Apart from the regulatory framework, resort can be made to the market force to minimize the principal-agent problems and help improve the living environment. To this end, it is necessary to better understand and evaluate the management performance of PMAs. Once the performance of PMAs can be benchmarked, the homeowners can be better informed in the choice of PMAs. Against this background, this paper proposes a protocol for evaluating and comparing performance of PMAs in MOH management in Hong Kong.
Current Measures of PMA’s Performance

Performance measurement or evaluation does not have a long history in the field of property management. Research in this aspect started only in the mid-1980s and the focus in the very beginning was put on social housing [10]. In the past three decades, different key performance indicators were used or proposed in the literature to measure or evaluate the performance of a PMA. These measures can be classified into the four main types, namely input-based measures, process-based measures, output-based measures and hybrid measures. Input-based measures include number of direct personnel deployed in the management process, number of professional licenses the PMA has and hours of personnel training [11]. Process-based measures generally refer to indicators related to the operation process of PMAs and have many variants. Whether the PMA has a certification from the International Organization for Standardization (ISO) which is a process-based monitoring may serve as an indicator of good performance [12-14]. Besides, PMA performance can be measured based on whether certain management practices (e.g., documentations and thoughtful emergency planning) have been adopted [15]. On the other hand, output-based measures concern the assessable outcomes of property management process and include building conditions or resident satisfaction [16]. Hybrid measures are essentially combinations of some or all of the three measures aforementioned. They usually come in a format of multi-attribute evaluation tool [17,18].

Nonetheless, each of the approaches has its strengths and weaknesses. Input-based measurement ignores the outcomes of property management which homeowners concern most in many cases. Process-based measurement is similar to a standard practice checklist. It posits that PMAs which adopt all the practices on such a list will have a high score, but it fails to distinguish those adopting innovative practices which lead to good performance. Output-based measurement disregards certain important factors that may affect the outcomes of property management. For example, a five-year-old building is found in a very good condition. It can be ascribed to the effective efforts of the PMA in the building upkeep. Alternatively, it is possible that physical deterioration is not yet a problem in this relatively young property. Seemingly, hybrid measurement is the most convincing approach. Yet, there is no consensus on what attributes or factors should be put in the evaluation system. Moreover, the choices of attributes can be situation-specific so the question of whether the hybrid measures produce apple-to-apple comparisons across PMAs is not clear. No matter which type of measure is used, it is important that only the component of performance that is controlled by MOH management should be accounted for. Similar to what has been discussed before, it would be flaw to attribute a more ‘satisfactory’ housing development to better performance of a PMA without holding other exogenous factors constant. This is an area that the literature has ignored. A more rigorous and generalized method to evaluate the PMA performance in MOH management is needed.

New Paradigm for PMA Performance Evaluation

The aim of this paper is to propose a new paradigm for measuring and comparing the performance of PMAs in providing professional services to the owners of MOH developments in Hong Kong. As revealed in the previous section, each of the four approaches of performance evaluation has its own strengths and weaknesses. Assessing the performance in a *ceteris paribus* condition (i.e., holding other exogenous factors constant) is the major concern of the whole process. In our proposed paradigm, management performance of a PMA is defined as the achievement of the PMA in managing the MOH development to the satisfaction of the residents and the endeavor to maintain the MOH development in a good condition. In fact, this definition is justifiable because services provided by PMAs consist of tangible and intangible dimensions. Tangible dimension refers to the upkeep of the condition of the development. Physical condition of the housing development is an important factor in PMA performance evaluation because most homeowners employ a PMA in order to ensure the health and safety of their housing developments. On the other hand, intangible dimension includes how PMAs deliver their services to the residents.
How much a PMA contribute to the good (or poor) condition of a MOH development? Similarly, how much a PMA contribute to the high (or low) level of residential satisfaction within a MOH development? Regarding these two questions, the true contribution of the PMA to the physical condition and residential satisfaction of the development cannot be ascertained directly or explicitly. Therefore, an indirect measurement has to be taken. As a matter of fact, the role of a PMA in MOH management can be, to a large extent, analogous to the role of a fund manager in fund management. Both PMA and fund manager serves their respective clients or principals (i.e., homeowners and investors) in return for a fee-for-service.

Borrowing the idea of William Sharpe [19], we proposed a residual concept for evaluating the performance of a PMA. As shown in Fig. 1, PMA performance is one of the factors affecting existing physical condition and residential satisfaction of a MOH development. Nevertheless, there are other factors affecting building condition and residents’ satisfaction. For example, inborn characteristics of a MOH development such as building age and types of material used may determine the degree of wear and tear and durability of the building fabrics, which will in turn affect the level of maintenance required for the housing development. Besides, works of a PMA may be facilitated or hindered under different coordination mechanisms among homeowners (e.g., whether an owners’ corporation exists or not). Moreover, the characteristics of the residents’ (e.g., income and education levels) may bear impacts on the building condition because they affect how the common areas of a MOH development are used. All in all, these three groups of exogenous factors would exhaust all the determents of building conditions that are beyond the control of management. Therefore, we need to extract the PMA’s efforts from the building condition holding other exogenous factors constant.

Figure 1. Conceptual framework of factors affecting building condition and residential satisfaction.

To operationalize the extraction of a PMA’s performance in management of a MOH development from building condition, the physical condition of the MOH development has to be assessed. The assessment can be done using the Building Conditions Index (BCI) developed by Yung Yau [20]. The BCI is a multi-attribute assessment indicator of the existing condition of a building or a group of buildings. Mathematically, the BCI is constructed as

$$BCI = f ( F_1, F_2, ..., F_n ; w_1, w_2, ..., w_n )$$

where \( F_i \) denotes the rating of the \( i \)th assessment item to be assigned during site inspection; \( w_i \) (\( i=1, 2, ..., n \)) denotes the weighting of the \( i \)th assessment item, with all \( w_i \)'s summing to unity; and \( g \) is a continuous, or discrete, function that combines all \( w_i \)'s and \( F_i \)'s. In essence, Eq. 1 defines the BCI as a
weighted average of building attributes or assessment items. Each assessment item will be rated according to a predetermined rating scale. Its score ranges from 0 (for the worst scenario) to 100 (for the best scenario). A higher \( F_i \) will result in a higher BCI, holding other \( F_j \)s (where \( i \neq j \)) constant. The weightings \( (w_i) \) will be determined using the Analytic Hierarchy Process (AHP). AHP is a structured multi-criteria decision-making technique to deal with decisions making involving multiple attributes [21]. It decomposes the decision making process into hierarchy and pairwise comparison. Also, it is widely used in the property and construction field [22,23]. Workshops will be organized to interview representatives from relevant professional bodies and universities to collect expert opinions on the weightings. The use of AHP would greatly improve the reliability of the weightings. When all \( w_i \)s and \( F_j \)s are obtained, the overall index BCI of a MOH development can be computed using Eq. 1.

After collection of data from a pool of MOH developments, a regression model will be established that relates the BCI with a MOH development’s inborn attributes \( (IA) \), residents’ characteristics \( (RC) \) and features of coordination mechanism \( (CM) \) based on the conceptual framework in Fig. 1 such that:

\[
BCI = g \left( IA, RC, CM \right) + \varepsilon
\]  

(2)

where \( g \) is a mathematical function to be determined; and \( \varepsilon \) is the error term, which is also called the residual. The advantage of using regression is that other factors can be held constant. Most importantly, the residual series \( (\varepsilon) \) found in Eq. 2 captures implicitly the performance of the PMAs in managing the MOH developments under investigation. It accounts for the remaining variations in building condition that cannot be explained by the exogenous factors. Given the same building inborn attributes, residents’ characteristics, and coordination mechanism features, the differences in the physical condition of the housing developments, if any, should be attributed to the variations in PMA’s performance. Similarly, as shown in Fig. 1, the overall satisfaction of the residents with the living environment of a MOH development is contingent not only on the PMA’s performance. It may also be affected by the residents’ demographic characteristics \( (DC) \) like age and income level, housing tenure type \( (HT) \) such as renter, owner-occupier or investor and the general perception of neighbour relationship within the housing development \( (NR) \). The residential satisfaction \( (RS) \) can be measured using C. Adriaanse’s residential environmental satisfaction scale or any other appropriate scale [24,25]. The PMA’s performance can be extracted from the residual series \( (\gamma) \) of regression results of the following equation:

\[
RS = h \left( DC, HT, NR \right) + \gamma.
\]  

(3)

A property management performance index (PMPI) for a PMA with respect to a particular MOH development \( k \) managed by the PMA can be computed based on the following equation:

\[
PMPI = \varepsilon_k + \gamma_k
\]  

(4)

where \( \varepsilon_k \) and \( \gamma_k \) are extracted from the residual series of Eq. 2 and 3 respectively. The PMPI can be used to evaluate and benchmark the management performance of the PMAs.

**Validation of the Proposed Evaluation Protocol**

The PMPI can be validated using a multi-perspective approach. From the service quality perspective, the PMPI should have a significant positive relationship with the PMA’s service quality perceived by the clients, i.e. the residents. In fact, in literature in the field of facility management, customer satisfaction has been widely used as an efficient indicator of the management performance [26-28]. The subjective service quality can be measured using SERVQUAL or other equivalent scale [29]. From the viewpoint of economics, properties managed by a better-performing PMA should command higher values or rentals than those managed by a poorly-performing PMA. In this regard, the PMPI can be validated with property value or rental. A positive relationship between the average
property price of a MOH development is expected to change positively with the PMPI of the PMA managing the development, keeping other things constant.

Concluding Remarks

Professional property management aims to help homeowners and residents to create a pleasant, safe and healthy living environment. It is a common belief of ours. Paradoxically, homeowners and PMAs often have conflicting interests and agency problems associated with PMA often result in poor management performance. To promote better services provided by PMAs, it is necessary to evaluate and benchmark the performance of PMAs. However, the existing measures or indicators are not free of limitations. In this regard, a new paradigm for evaluation of PMA performance in management of MOH development in Hong Kong was proposed in this paper. The PMPI can have applications which are beneficial to all stakeholders in the field of property management. The index can offer valuable information to the PMAs for continuous monitoring and improvement of their professional services. For the general public, the proposed protocol provides a useful tool for management performance evaluation of PMAs. When a critical mass of PMAs have been evaluated using the PMPI, benchmarking is feasible. Homeowners can be used the index as one of the selection criteria when procuring management services for their MOH development. By market forces, poorly-performing PMAs will be crowded out. As a result, the PMPI will serve to foster a culture of good-quality property management in Hong Kong in the long run. For the government, the PMPI can serve as a policy tool to identify substandard management service providers. The licensing authority can make reference to a PMA’s PMPI when making decisions regarding licensing and disciplinary actions.

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References


