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# Optimisation of performance management for housing services

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## Abstract

**Purpose** – The purpose of this paper is to investigate how performance management control should be optimised for housing management services, through two different organisational contexts in the social housing sector.

**Design/methodology/approach** – Case study methodology was used to examine the performance management control of one typical local authority in England where housing management services are run by a non-profit-making Arm's Length Management Organisation, and of another major housing organisation, the Hong Kong Housing Authority, where the services are contracted out to profit-making consultants.

**Findings** – In a non-profit-making organisational context, housing management services should be measured by performance indicators related to the strategic objective of providing efficient and effective services. Benchmarking should be conducted to supplement performance control. In a profit-making organisational context, market competition should also be introduced so that more tendering opportunities are given to the best performers to optimise the performance of service providers.

**Research limitations/implications** – The findings of this research are based on two cases representing the social housing sectors in England and Hong Kong. The research forms a conceptual baseline on which further research can be built to find out effective control to optimise the performance of property management services in many other housing and facilities management organisations.

**Practical implications** – Performance management of housing management services can be optimised by benchmarking and market competition.

**Originality/value** – This study contributes to performance management of housing management services by conducting empirical confirmatory testing of the validity of performance management theory.

**Keywords** Performance management, Housing, Property management, Hong Kong, England

**Paper type** Research paper

## Introduction

From a strategic management perspective, housing managers should always review the technological, economic and social changes and seize opportunities to improve their organisational performance, in particular the changes in market competition and customer expectations. In the context of social housing services, there are a number of key stakeholders involved in the service production process, including central and local governments, tenants, political parties and the public. These stakeholders all look for the efficient and effective use of resources (Audit Commission, 2005; HKHA, 2005; PricewaterhouseCoopers, 1999; Choi, 1999; Farnham and Horton, 1996; DOE, 1992). Improving efficiency and effectiveness should therefore be the strategic objective to measure success for housing organisations.

Armstrong and Baron (2004) define performance management as a process which contributes to the effective management of individuals and teams in order to achieve high levels of organisational performance. As such, it involves what is to be achieved



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and how to lead and develop people and production processes which will ensure that it is achieved. The ultimate aim is to ensure resources are effectively and efficiently used to accomplish organisational objectives.

Performance management is therefore necessary to achieve the strategic objectives and hence success of business organisations (Otley, 2005; Kent, 2004). Kent (2004) describes that a performance management process comprises of two essential parts, namely, a process to manage the organisation's performance against objectives, and a process to monitor progress, audit results measured against a plan, and take action if necessary to maintain strategic direction. By comparing the performance measurements with the clear objectives set, managers are assured that their team is progressing in the right direction and is doing its part. The other part of the performance management process is a continual progress review through which any off-target performance is identified and highlighted for learning and improvement.

Flynn (2007) puts emphasis on the learning and improvement process of performance management. Performance measurement can be used to merely monitor and control, or to learn to continue to develop individuals, teams and production processes. Which approach is adopted depends on the overall management culture of the organisations involved. He points out such relationship as follows:

In rigid-control cultures, performance management is achieved through fear or failure on the one hand, and some incentives to do better on the other. In a culture in which people are expected to take initiative and control their own work, performance measurement can be one way in which people learn from others about how to manage. (Flynn, 2007, p. 224).

Amaratunga and Baldry add that performance measurement and management are important for facilities management (FM) for two reasons. Performance measurement focuses on critical success factors which are linked to the organisational strategy, and is hence useful for strategic development to achieve optimal performance. Performance management entails performance review and learning, leading to change and continuous improvement of the existing services and the operations and processes of FM organisations. However, Amaratunga *et al.* (2000) point out that the study of performance management in FM has been superficial and there is a need to develop a performance management system to provide a tool for assessing, managing and improving the overall health and success of FM organisations, particularly when resources are becoming more scarce and higher efficiency operations are demanded by customers.

In the UK, the Audit Commission (2005) advocates and emphasises that social housing services should be measured and monitored to ensure value for money services. However, the Audit Commission only lists what should be measured in performance output and does not mention what fundamental management input should be adopted in the monitoring process to improve the efficiency and effectiveness of the services. A substantial body of literature has attempted to identify management practices to improve service performance, including employing early design, focusing strategy and total quality management, but much of it is theoretically based, as revealed by Lee *et al.* (1999) and Longenecker and Scazzero (2000) in manufacturing and warehouse industries. Ting and Chen (2002) reiterate such deficiency and call for research to investigate the impact of management input on performance output. There is a knowledge gap in empirical testing to confirm the

validity of performance management theory in the context of housing and property management services.

This study aims to investigate how performance management should be undertaken to optimise housing management services in profit and non-profit-making organisational contexts in social housing sector, i.e. how performance should be measured and what effective management control should be taken. The primary objective is to improve the existing performance management system for housing services. The research findings can also be applied to the property management services in other FM organisations.

The traditional performance management theoretical framework will be examined to find out if it can explain the management practices of two major social housing sectors. Case study research methodology was used to examine the performance management control of one typical local authority in England where housing management services are run by a non-profit-making Arm's Length Management Organisation (ALMO), and the Hong Kong Housing Authority (HKHA) where the services are contracted out to profit making housing management companies.

### **Performance management framework**

Otley (2005) suggests that four main questions have to be asked when developing a framework for managing organisational performance. These are as follows:

- (1) What factors does an organisation see as crucial to its continued success, and how does it measure and monitor its performance in each of these areas?
- (2) What level of performance does the organisation wish to achieve in each of these areas, and how does it go about setting appropriate performance targets?
- (3) What rewards (both monetary and non-monetary) will managers gain by achieving these performance targets (or conversely, what penalties will they suffer by failing to achieve them)?
- (4) What information flows are necessary for the organisation to be able to monitor its performance on these dimensions, learn from its past experience and to adapt its behaviour in light of these expectations?

Based on case study research conducted by Fitzgerald and Moon (1996) in the management accounting service sector to examine effective performance management systems, Otley (2005) recommends that the following framework should be adopted.

- Tie performance measures explicitly to strategy. A set of performance measures should be developed according to those activities which are vital to their future success.
- Remember that effectiveness is more fundamental than efficiency. Cost reductions should not be given great importance than the achievement of output objectives.
- Review all performance measures from the bottom up. The performance measures should be clear and not easily distorted. As the employees are measured by the performance system, their views should be fully considered.
- Pay attention to incentives and rewards. A well-designed measurement and reporting systems should be supplemented by an appropriate reward system.

This framework is generally in line with the performance measurement conceptual model established by Amaratunga and Baldry (2003) for FM organisations. The model was built on theory and practice by combining existing concepts and well-used performance measurement systems, including “balanced scorecard” of Kaplan and Norton’s (1996) and “performance prism” of Neely *et al.* (2000). It includes not only the hard financial indicators but also other soft measures such as customer satisfaction and organisational learning. Amaratunga and Baldry consider that measurement framework should cover four essential elements in order to enhance the organisational performance, namely, customer requirements (quality goods and services, effective delivery and overall satisfaction), internal production processes (operations, processes, competencies and skills which have greatest impact to improve customer satisfaction and financial objectives), learning and growth (continuous improvement and development of services, operations and processes), financial and non-financial performance (operational efficiency and effectiveness measures linked to the organisational strategy).

Flynn (2007) adds that performance indicators (PIs) are now in use throughout the public sector and are at the heart of the managerial mode of control, especially in the hierarchical form represented by management objectives. PIs have two important functions. Firstly, they can be part of a control system which in some way punishes bad performance and rewards good. Comparative performance information can be published to monitor organisational performance. Key PIs are now made available to the public, covering social housing service, universities, schools and National Health Service. Flynn is concerned that managers may make efforts to achieve the targets contained in the league tables and neglect other aspects of performance.

Secondly, PIs can be part of a process of finding out better ways of managing. He suggests that comparative performance information in the league tables should be used by managers to improve organisational performance by benchmarking with the best performer in the group. Benchmarking consists of comparing elements of the production process against the best performer. Amaratunga and Baldry (2002) point out that FM managers should identify, study, analyse and adapt the best practices that led to the most efficient performance. This enables them to make better-informed decisions about where and how to change their organisations in order to ensure optimal performance.

Freytag and Hollensen (2001) state that benchmarking involves the measurement of business performance against the best and makes continuous effort in reviewing process practice and method. Mainelli (2005), Loosemore and Hsin (2001) and Varcoe (1993) advocate that facilities and property management are well suited to benchmarking. Good benchmarking has been the starting point of many successful change programmes. Service providers are keen to benchmark with their competitors to improve performance, as illustrated by Mainelli’s (2005) case study on benchmarking of facilities-oriented costs between a large government research organisation and a large private pharmaceutical organisation. Both organisations learned valuable lessons on how to improve their cost performance through fleet management, contracting-out of maintenance and increasing staff satisfaction. Loosemore and Hsin (2001) and Varcoe (1993) add that it is important to consider benchmarking and performance measures along with the strategy and business

objectives of the organisation in order to get an overall equation for performance improvement.

For property services, Hung (2006) advocates that an organisation should develop its performance measurement system which involves the collection of key PIs for assessing overall organisational performance, supporting continuous improvement and innovation and ensuring the organisation can rapidly respond to internal or external changes. Externally, an organisation should analyse comparative information through benchmarking with a view to improving services. In addition to league tables, benchmarking can be done through experience, sharing with major property management companies, and annual research on portfolios managed by the competitors. Hung adds that application of benchmarking to continually improve organisational performance in cost and quality is relevant to property and housing management.

In short, the existing performance management theory indicates that in the context of housing or other FM organisations, performance output should be measured and effective management input should be undertaken according to the following theoretical framework:

- The performance measures should be linked to the organisational strategic objectives to ensure business success.
- Efficiency and effectiveness are the strategic objectives of social housing organisations so both should be measured, managed and improved to ensure financial performance and customer satisfaction. Effectiveness is considered to be more fundamental especially for the service sector which demands high quality of service.
- The performance measures should be clear and performance targets should be set after consultation with the operational staff, and be updated continuously.
- Rewards should be provided to good performers as a motivation to improve performance.
- Benchmarking should be used by managers to improve organisational performance through learning amongst competitors.

### **Research methodology**

This research aims to investigate how performance should be measured and what management control should be adopted to maximise performance in different social housing organisational contexts. Fellows and Liu (2003) state that case study research can be used to investigate phenomenon within real context and therefore can draw rich conclusions. This research methodology was therefore used to examine the performance management policies in two major housing organisations to see if the theoretical performance management framework can explain the actual practices. One typical local authority in England and the HKHA were examined because they represented two different organisational contexts in the social housing sector. In the local authority, the housing management services are run by a non-profit-making ALMO, whilst in the HKHA, the services are contracted out to profit-making housing management companies.

For the ALMO, the investigation was conducted by in-depth interviews with the council and a housing service provider, as well as analysis of record documents.

The objective was to find out how performance was measured and controlled in practice in a non-profit-making scenario. Seymour *et al.* (1997) suggest that qualitative methods should bring respective experience and views and hence realities. Fellows and Liu (2003) support that the scrutiny of qualitative data can verify the themes found in theory and literature review.

For the HKHA, a quantitative regression analysis was conducted to find out how management control was undertaken in a profit making context to ensure optimum performance from the housing management consultants. Regression analysis provides a powerful tool for developing a forecast of the future based on the past (Schleirfer and Bell, 1995). It is one of the most efficient methods to analyse the relationship between the result and various types of influencing factors. In fact, a multiple regression model has been used in a number of empirical cases to study the relationship between output of services or products and input management practices of production and monitoring process (Terziovski and Dean, 1998; Lee *et al.*, 1999; Forker, 1997; Adam, 1994).

#### *Performance assessment of housing management services in England*

In England, the Housing Inspectorate of the Audit Commission inspects the social housing services provided by local authorities, including ALMOs and housing associations. ALMOs are non-profit-making companies formed by local authorities to take over housing management and maintenance services. They are managed by a board of directors comprising council representatives, elected tenants and independents. These organisations are created by local authorities under the Government's initiative as introduced in Housing Green Paper "Quality and Choice: A Decent Home for All" and re-affirmed in the Sustainable Communities Plan 2003 and the 2004 Spending Review. The aim is to ensure efficient and effective housing management services. ALMOs are contracted to manage, maintain and improve the housing stock. Additional Government funding is provided to the local authorities if their ALMO can obtain a good performance rating of 2\* or 3\* from the Housing Inspectorate. ALMOs can form partnership with property management companies to provide housing management services.

To inspect the housing management services of local authorities and housing associations, the Housing Inspectorate has followed the criteria previously set out in the "Best Value Framework" of Audit Commission (2000) and "A Framework for Housing Associations" of The Housing Corporation (2002). Since 2005 the Housing Inspectorate has been carrying out inspections for both local authorities and housing associations using the Audit Commission's housing inspection framework based on the published "housing key lines of enquiry" (KLOEs) and descriptors that inform their judgements (Audit Commission, 2005). Inspectors reach their judgement by applying the relevant standard assessment criteria which addresses two key questions:

- (1) How good are the services being inspected? The performance is compared with similar services using PIs.
- (2) What are its prospects for improvement? The inspectors examine whether adequate management and governance arrangements are in place.

According to the review of housing inspection and assessment by the Audit Commission (2004), the scope of inspection should be consistently applied across various sectors. Whilst this is the general approach that should be followed, flexibility

should be allowed to adjust the performance measures to suit customer needs, as advised by Parasuraman *et al* (1988; 1990) in applying their proven SERVQUAL models for measuring services in different contexts.

All inspection and re-inspection reports prepared by the Housing Inspectorate are published by the Audit Commission for benchmarking and learning for improvement purposes.

#### *Qualitative analysis of the local authority ALMO case*

The subject anonymous local authority of this study is a London Borough ALMO set up in 2002, which formed strategic partnering alliances with six property service providers to provide housing management and maintenance services for a portfolio of 22,000 homes. The services provided included maintenance and improvement, collecting rent, managing the tenancy, cleaning, security, consulting tenants, as well as allocating and reletting houses. To meet tenant expectations, residents were invited to sit on the ALMO board. Best value inspection and review were conducted by the Housing Inspectorate in December 2001 and October 2002, using the inspection framework criteria for local authorities. In general, if the ALMO meets the criteria set out in the two key aspects, it is likely to receive an excellent 3\* performance rating from the Housing Inspectorate. If the ALMO is not up to scratch, the Housing Inspectorate will point out what needs to be improved and an action plan should be drawn up accordingly. The assessment was executed as follows:

(1) How good are the services?

This part of inspection focused on service outcomes. The performance was mainly checked against a set of best value performance indicators (BVPIs) set by the Audit Commission and some locally developed PIs. There were 23 PIs, covering all housing management and maintenance services.

(2) What are the prospects for improvement?

The relationship between the local authority and the ALMO was assessed, including formal delegations, delivery plan provisions and legal agreements. The ALMO governance and strategic management were also assessed, including constitutional and leadership roles, approach to organisation and performance management, approach to service-user involvement, risk management, quality assurance system, training and development, strategic and finance management, business plan, and tenant participation in setting, monitoring and reviewing service standards. All these were fundamental to substantiate continuous improvement of performance.

These performance measures for local authority housing service are summarised in Table I.

The ALMO was inspected by the Housing Inspectorate in October 2002 and was judged to be providing excellent services and with excellent prospects for improvement. It was awarded the top performance rating Grade 3\*. The housing service provider interviewed in this study considered that the performance measures and PIs used to measure its performance were adequate to ensure efficient and effective services to tenants. The system of having inspection reports published by the Audit Commission was a very useful benchmarking exercise for learning and improvement of performance. In fact, the housing service company was given an Anniversary Management Award by another independent Civic Trust. This proved the

Quality dimensions	Performance measures in the inspection framework for local authority
Tangibles	Relationship with the local authority and its governance and strategic management Measured by assessor's judgement
Reliability	Average completion time for non-urgent repairs; repair orders exceeding target date by 90 days; percentage of communal repairs completed in target; jobs completed over 90 days without invoice; percentage of payment paid within 30 days; annual percentage of rent collected and arrears; average void property re-let time; percentage of ethnicity records and access details; actual percentage of tenancy checks; percentage of properties without gas servicing certificate; percentage of gas appliances without certificate for over 90 days; percentage of provision of major works consultation plans Measured by BVPIs and PIs
Responsiveness	Percentage of urgent repairs completed; percentage of appointment made; percentage of complaints responded with 10 days Measured by BVPIs and PIs
Assurance	Expenditure on occupational therapy adaptations; support services to vulnerable residents; number of referrals for residents receiving debt counselling service; number of nuisance and anti-social behaviour cases recorded; number of eviction cases handled
Empathy	Customers/tenant participation/repair satisfaction surveys Measured by BVPIs targets for "yes" respondents

**Table I.**  
Performance assessment of the local authority housing services

performance assessment criteria to be valid and reliable because they could significantly measure the company's performance which matched its external achievement. The company arranged a dedicated team of customer services staff for each of the five estates managed under the partnering alliances contract with the ALMO. It successfully maintained a true partnership with the client and the tenants. It made a number of achievements in management, maintenance and improvement of the estates, including improvement and block remodelling, maintaining a nice and clean estate environment, building up a harmonic community with strong sense of belonging, restoring disused playgrounds, resurfacing estate roads and providing free phone for repairs.

In addition, the housing service provider also managed housing neighbourhoods for other London local authorities. They all achieved good performance in repairs, void turnaround, rent arrears, complaints and customer satisfaction. Consequently, the housing neighbourhoods were also placed at the top positions in the annual performance tables. Externally, the consultant was assessed and given various performance awards in Charter Mark, Investor in People and A Top 100 Company by independent bodies consistently. This demonstrates that the performance assessment criteria are valid across different local authorities.

In September 2006, the ALMO was reinspected by the Housing Inspectorate, using a housing inspection framework based on the KLOEs published in Audit Commission (2007). The framework was developed by the Audit Commission in 2005 and is then periodically reviewed to ensure that the KLOEs remain relevant and up to date. According to the Audit Commission (2007), the performance measurement framework is shown in Table II.



Specific quality groups	KLOEs
Landlord services	Stock investment and asset management Tenancy and estate management Housing income management Resident involvement
Local authority strategic housing role	Allocations and lettings (as appropriate) Strategic Approach to Housing Homelessness and housing advice Private sector housing Supporting people
Specialist functions	Allocations and lettings (as appropriate) Supported housing Management of leasehold and shared ownership housing Management of right to buy and right to acquire schemes
Cross-cutting areas	Housing regeneration and neighbourhood renewal Access and customer care Diversity Value for money
What are the prospects for improvement?	Prospects for improvement

Source: Audit commission (2007)

**Table II.**  
Housing inspection  
framework based  
on the KLOEs

Compared with the previous assessment framework, this one is more focused and hence more practical. The KLOEs represent sets of questions and statements around either service or judgement specific issues, which provide consistent criteria for assessing and measuring the effectiveness and efficiency of housing services. These KLOEs are designed to provide inspectors with a framework through which to assess services. Descriptors of excellent and fair services will help organisations to understand how the quality of services is judged against the KLOEs. PIs were also applied for assessment of achievement. Such systems have facilitated housing service providers to perform even better. Consequently, the housing management services provided by the ALMO were excellent with excellent prospects for improvement, according to the independent housing inspection report released by the Audit Commission.

This case study indicates that housing management services should be measured by PIs related to the strategic objective of efficiency and effectiveness. These PIs should be grouped around specific functions. The overall performance rating is linked to funding award which is crucial to motivate ALMOs to perform well. In this non-profit-making organisational context, benchmarking is conducted by publication of inspection reports and is useful for learning and improvement of organisational performance.

#### *Contracting-out of housing management services in the HKHA*

Contracting-out of public services are now a worldwide dominant policy and strategy to deliver public services (Cope, 1996). It is argued that in the interest of public choice market competition is essential to achieving efficiency and effectiveness which can be

improved by better working methods, better organisational structure, better equipment and technology, and elimination of waste under market pressure (Boyne, 1998). Contracting-out of public services has therefore proliferated in different industries (Field Fisher Waterhouse and Remit Consulting, 2004).

PricewaterhouseCoopers (1999) confirm that housing maintenance and management services are commonly contracted out in Hong Kong, and argue that the service providers can offer quality service at a competitive price. In 1999, the HKHA decided to contract out its professional housing management and maintenance services for a portfolio of more than 600,000 flats in the forthcoming years.

#### *Quantitative analysis of the performance monitoring of housing management consultants*

The HKHA has been using a quality benchmarking system to monitor the performance of housing management consultants since early 1999. The quarterly performance appraisal scores of the consultants split up into three quartiles for comparison and learning. The output performance quality of the upper quartile consultants is served as a benchmark for other consultants. Consultants falling into the lowest quartile are advised of the ways to improve their performance. For the upper quartile consultants, they are given more contracts to tender. This financial incentive is used to motivate consultants to enhance their performance as their primary objective is profit making. It is felt that such a benchmarking and reward system has been operating with success, although no empirical analysis has been conducted.

The use of market and competition for the delivery of public services is primarily founded on the theory of public choice. The theory suggests that if public officials monopolise service delivery, then the result is oversupply and inefficiency. By contrast, if services are contracted out, the pressure of a competitive market will lead to improved performance on cost and quality (Boyne, 1998). To enhance the performance of consultants in maintenance contracts, the Authority applies competition force in the consultancy process. The HKHA considers that the consultants' performance can be improved by the number of direct competitors on the approved list of tenderers who can substitute poor performers and compete for tenders. These direct competitors influence the consultant's performance in such a way that the consultant has to provide competitive quality and quantity of resources to undertake the contract. Under the market competition, the consultants have to perform well because their performance is one of the key assessment criteria in awarding tenders.

The existing performance theory only emphasises the use of benchmarking to improve performance. In the practice of the HKHA, the Authority applies not only benchmarking but also competition force in the performance monitoring process. To test the validity of the practice, this research has conducted a multiple regression analysis to investigate the relationship. It was hypothesised that there was a positive correlation between output performance and input management factors of benchmarking and competition. The hypothesis was tested by quantitative regression analysis, using data from 50 maintenance consultancies of the HKHA. These 50 maintenance consultancies constituted 69 per cent of the consultancy contracts completed between 1998 and 2002. Such a quantitative research method could achieve a high level of generalisation and objectivity.

The dependent and predictor variables in the regression equation should be objectively measured. Without these objective measures, the regression analysis would not produce objective findings. In this research, the dependent variable of output service quality was measured by using the quarterly performance appraisal model for maintenance consultants of the HKHA, which is virtually the same as the proven SURVEYQUAL quality gap model for performance measurement of construction and property professional services in the UK public sector (Hoxley, 2000). In both models, similar performance criteria of planning, design, cost control, contract administration and relationship with client are used and they are measured by the quality gap between perception and expectation, which is represented by various grades corresponding to different marks. The performance criteria are basically related to efficiency and effectiveness of the services provided. Comparison of the models is given in Lam (2002). For the predictor variables, i.e. management influencing factors, they were operationalised by objective figures as shown in the regression model in Table III.

Output Service Quality (OSQ) – function [Competition Level (CL), Quality benchmarking system (BS)], i.e.:

$$OSQ = \alpha + \beta_1 CL + \beta_2 BS + \varepsilon,$$

where  $\alpha$  – Constant or the Y-intercept of the regression plane;  $\beta_n$  – Regression coefficients for the predictor variables; and  $\varepsilon$  – error constant arising from the prediction values and the actual observed values, which are subjected to variability and cannot be expressed as exactly a linear relationship.

The analysis was run using the SPSS programme and the results are given in Tables IV and V. It showed an adjusted  $R^2$  of 0.695 for the overall correlation between the output service quality and the input factors of quality benchmarking and CL. This means that 69.5 per cent of the observed variability in output service quality (dependent variable) could be explained by these input factors (predictor variables). Norusis (1996) considers that a  $R^2$  of around 80 per cent indicates a significant correlation between dependent and predictor variables. Hence, there is a significant

Variables	Operationalisation
<i>Dependent variable</i> OSQ	Average of the quarterly performance scores in the maintenance consultancy
<i>Predictor variables</i> CL BS	Number of bidders in the tendering list 1 or 0 for present or absence of the system (32 out of the 50 consultancy contracts had started using the BS system in which the quarterly appraisal performance scores of all consultants of individual disciplines were classified into three quartiles for comparison and learning. Quality performance of the upper quartile was used as a benchmark for performance improvement of the other quartiles.)

**Table III.**  
Regression model for the performance monitoring process of professional housing maintenance services

correlation between the performance quality and these management control factors. The hypothesis was hence substantiated.

According to Mohr (1990), if a partial regression coefficient has a *t*-value > +1.98 or < -1.98 at a significance level (*p*-value) of smaller 0.05, the relationship between the dependent variable and predictor variable is considered to be significant. The test result also shows that the “benchmarking system”, based on performance appraisal scores between consultants, has a highly significant positive relationship with output service quality, with a *t*-value of 4.609 and a *p*-value smaller than 0.001. This result is in line with the theories of benchmarking and performance management.

For “CL”, it is also highly significant to the output performance quality, with a *t*-value equal to 3.854 and a *p*-value smaller than 0.001. This shows market competition does have a strong effect on improving service quality, as explained by the theory of public choice and its associated argument of market competition (Boyne, 1998).

Compared with the non-profit-making ALMO case, the HKHA built financial incentives and competition force into the performance monitoring process to optimise performance of the profit-making consultants.

### Conclusions and recommendations

This research aims to investigate how performance management should be undertaken to optimise performance of housing management services in profit and non-profit-making organisational contexts in social housing sector. The results of the case studies indicates that the existing performance management theory can explain the practices in the non-profit organisational context but not fully in the profit making context where the housing management services are contracted out to private service providers.

In the non-profit-making organisational context like the AMLO case, housing management services should be measured by PIs related to the strategic objective of providing efficient and effective services. These PIs should be flexibly adjusted to suit various stakeholders’ requirements (including tenants, central and local governments, political parties and the public). However, benchmarking should be adopted to supplement performance measurement because it can enhance performance through

Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Standard error of the estimate	Durbin-Watson	Testing procedure
1	0.784 <sup>a</sup>	0.615	0.607	7.372		Stepwise
2	0.841 <sup>b</sup>	0.707	0.695	6.494	1.988	Stepwise

Notes: <sup>a</sup>Predictors: (Constant), Benchmarking System (BS); <sup>b</sup>Predictors: (Constant), Benchmarking System (BS) and Competition Level (CL)

Table IV. Regression analysis of performance

Variables	<i>B</i>	SE <i>B</i>	$\beta$	<i>t</i> -value	<i>p</i> -value
BS	12.096	2.625	0.499	4.609	0.000
CL	2.006	0.521	0.417	3.854	0.000
(Constant)	46.406	3.530		13.145	0.000

Table V. Variables in the equation

comparison and learning. Benchmarking in the non-profit-making context can be conducted in various ways, including publication of inspection reports and experience sharing with other housing organisations. These findings are consistent with the performance management theory.

In the profit making organisational context, the HKHA case demonstrates that the impact of benchmarking on housing management consultants can be enhanced by providing more tendering opportunities and monetary reward to the best performers whose primary objective is making profit.

The performance management theory focuses on use of benchmarking as a key management control influencing performance. Market competition has a highly significant correlation with efficiency and effectiveness of services. As such competition should be applied along with benchmarking to optimise the performance of housing service providers. Competition should be kept high by maintaining a sufficient number of competent consultants in the approved list of tenderers.

The findings of this research are based on two cases representing the major social housing sectors in England and Hong Kong. The theoretical basis of performance management is applicable to housing and FM organisations. Hence, this research forms a conceptual baseline to which further research can be conducted in many other settings to find out ways to optimise the performance of property management services in housing and other FM organisations.

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