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ABSTRACT

This paper addresses the question as to what extent the outsourcing degrees of property management influence the operating costs of owner-operated real estate. For this purpose, the outsourcing degrees of technical, infrastructural and commercial property management of over 100 Swiss office buildings were reviewed. In terms of costs, the administrative costs as well as the costs of utilities, waste disposal, cleaning, upkeep and maintenance were included.

As the analysis of the data revealed, commercial property management primarily impacts on the administrative costs. The office buildings of the four project partners that were examined incurred higher costs when commercial property management was outsourced. Similarly, the costs of utilities and waste disposal are higher for real estate with outsourced infrastructural property management. An inverse relationship was identified in respect of the cleaning costs, where the costs are lower when outsourcing infrastructural property management. The impact of technical property management becomes apparent with regard to the maintenance costs, which are lower for real estate with outsourced technical property management. On balance, the situation appears to be rather heterogeneous, as outsourcing results in higher costs for some cost groups and in lower costs for others.

The reasons offered for these differences go far beyond the actual functions being outsourced. For instance, the project partners involved

Journal of Corporate Real Estate Vol. 7 No. 3, 2005, pp. 246–257. ©Emerald Group Publishing Limited, 1463–0011X believe that it is, in particular, low service levels and reduced maintenance strategies that go hand in hand with high degrees of outsourcing. Therefore, the interviews with real estate owners, and also the data collected, give rise to the assumption that outsourcing is a measure for the implementation of cost reduction strategies. However, this assumption requires verification by way of further exploration.

Keywords: outsourcing, corporate real estate management, public real estate management, real estate strategy, real estate financing, occupancy costs

INTRODUCTION

Outsourcing within the meaning of this study is the transfer of services to external service providers, with the focus being on property management in accordance with DIN 32736: "The entirety of all services for the operation and management of buildings, including all structural and technical facilities, on the basis of integrated strategies". Thus, the study follows the definition provided by McDonagh and Hayward, who describe outsourcing as "the partial or total contracting out of a business task, function or process to an external service provider. It involves replacing the internal provision of those services and includes out-tasking, strategic alliances and partnership arrangements".²

In Switzerland, it is in particular the outsourcing of services in the area of public or corporate real estate management (CREM) which has significantly gained in importance over recent years.³ For this reason, this area is examined further within the scope of this study. One aspect influencing the decision for or against outsourcing is the cost factor.⁴ In fact, many real estate owners expect a reduction in costs from their outsourcing projects. However, to what extent the cost of real estate is effectively reduced by

the implementation of such measures, and what their implications are, has not yet been examined in greater detail. There is still a distinct lack of studies examining the question as to whether or not the outsourcing of services can lower costs.

The only existing studies centre around the question of what the determining factors of real estate costs are. The GSD's Public Housing Operating Cost Study,⁵ for instance, discerned above all the impact that the location has on cost development. Moreover, the studies carried out by BMI,⁶ which primarily provide cost data for a variety for usage types, merit mentioning. These studies recognise the type of usage as a relevant driver. However, the existing studies do not provide any information as to what extent outsourcing impacts on costs. This study aims to close this gap.⁷

Using data collected from four project partners, the present study examines the causal relationships between outsourcing and the costs of owner-operated real estate in Switzerland. For this purpose, the costs of over 100 owner-operated office buildings and their outsourcing degrees are reviewed on a uniform basis. Any relationships identified can then be examined and discussed with the participating project partners, with the aim of answering the following question: Does the outsourcing degree of property management have any impact on the costs of owner-operated real estate?

The present paper is intended as a first step on the path to answering this question. In the first section of this paper, the authors introduce the general concept of outsourcing, primarily addressing the question of differing outsourcing degrees and their measurement within the context of this study. The second section addresses the cost aspect; based on the operating cost concept, it outlines the identification of operating cost indicators. The

two following sections describe the survey sample underlying this study and the causal relationships ascertained between outsourcing degrees and costs. Finally, the results are interpreted in the last section, primarily addressing potential cost drivers that are closely related to outsourcing.

PROPERTY MANAGEMENT AND OUTSOURCING

Property management in accordance with DIN 32736

With regard to the property management concept explained above, DIN 32736 distinguishes between three separate service segments:

- Technical property management
- Infrastructural property management
- Commercial property management

Technical property management is comprised of all services required for the operation and management of structural and technical installations, such as operating, servicing and repairing installations. The infrastructural management, on the other hand, encompasses all business-supporting services that improve the use of the building, e.g. cleaning and upkeep services. And finally, the last service segment includes all commercial services arising in connection with both technical and infrastructural property management. This segment also encompasses property accounting and contract management.

As part of this study, these three service segments have been examined separately. They were used in order to differentiate between the outsourcing degrees of the properties surveyed, distinguishing between the following characteristics:

- Provision of external services
- Provision of internal services

Thus, the outsourcing of property management services was defined on three levels (technical, infrastructural and commercial) and two tiers ("depths") (external and internal). The underlying depth scaling was carried out on a merely nominal basis, as no metric scaling data (indicating the share of outsourced services in percent, for example) had been provided by the project partners.

Outsourcing of property management services

The meaning of outsourcing within the present study is the contracting out of property management services to an external service provider, the outsourcee. In order to better understand this phenomenon, which has become more prevalent in recent years, first of all, it must be examined why real estate owners transfer the provision of services to outsourcees.

In their McDonagh survey, Hayward⁸ recognised "that access to skills, technology and best practice not available within the organisation is the main outsourcing reason for most organisations and that, contrary to popular belief, cost savings are relatively unimportant". These results are confirmed by the surveys carried out among Swiss real estate owners, as regularly published by pom+ and ETH Zurich. While the respondents regarded the cost aspect as relevant for outsourcing decisions, the concentration of the core business was the main consideration in their decisionmaking process.9

Nevertheless, 44% of all real estate owners polled by pom+ and ETH Zurich named outsourcing as the reason for realised cost reductions. In addition, they mentioned, inter alia:¹⁰

- Process optimisation
- Changes in user behaviour
- Improvements in cost transparency

Consolidation of purchase volumes

This shows that cost reductions are attributable to a number of causes and not just outsourcing alone. However, the authors believe that these reasons are closely related to outsourcing, as will be elaborated further in the following section. In fact, these reasons are often an essential element of outsourcing projects, which means that outsourcing, in most cases, leads indirectly to cost reductions.

During outsourcing, processes (such as cleaning, relocation and maintenance management) which had previously been the responsibility of the real estate owner or the owner's CREM division are transferred to the outsourcee. Generally, the outsourcee continues to use the existing process sequences. However, the outsourcee will first of all analyse these processes in order to optimise them, as only an optimised process will permit the cost-effective provision of the required service. In doing so, the outsourcee can usually draw from extensive experience gained during similar projects. This enables the outsourcee to costoptimise the processes within the given service level.

Moreover, when contracting out any services, the direct costs of these services are more apparent. Cost transparency is almost an integral aspect of outsourcing and usually results in major parts of additional services no longer being requested by the user. This means that service levels, for example, can be defined at a comparatively low level¹¹ and that only very few additional services will be requested at a later stage. The cost reductions are achieved by decreasing the scope of service. Usually, this also results in a change in user behaviour, as user requests are no longer automatically fulfilled due to the structure of the contractual agreements with the outsourcee.

Along with the above-mentioned cost transparency for additional services, outsourcing projects may also increase cost transparency in general. When taking on property management services, the outsourcee will be required to render transparent and comprehensible accounts regarding these services to the real estate owner. Only in cases where remuneration in the form of a flat fee has been agreed, will complex accounting of this kind not be necessary. The agreement of a flat fee is, at least in Switzerland, quite rare; therefore the outsourcee will generally be required to provide proof of the services rendered by keeping transparent property accounting records. As a result, owners could achieve a high level of cost transparency for their real estate portfolio.

Another factor to which real estate owners attribute realised cost reductions is the consolidation of purchase volumes, ranging from the purchase of electricity, heating oil and gas to the purchase of fittings and furniture. This is an effect which can be achieved, in particular, by outsourcing and thus, where applicable, the combination of smaller portfolios. By purchasing for all the portfolios managed by it, the outsourcee can utilise economies of scale. It should be mentioned that, in addition to the pure purchasing activity, economies of scale can also be achieved on a more general level (regarding relocation management or administrative services, for example) when combining the portfolios. Ambrose et al. 358) describe the advantages of economies of scale, making particular reference to real estate investments. 12

OPERATING COSTS OF OWNER-OPERATED REAL ESTATE

This study examines the costs of owneroperated real estate based on the operating cost concept of DIN 18960. It encompasses "all recurring direct costs for structures and land, whether incurred on a regular or irregular basis, as from the time the structure becomes useable until its demolition." ¹³

It should be noted that this definition takes into consideration only those costs generated by the building. Any operationspecific and production-related personnel and material costs do not fall under this definition if they can be separated from the operating costs.¹⁴ This means that, inter alia, the cost of electricity for the operation of the building (e.g. for the water supply, sewerage, heating and transport systems) must be separated from the cost of electricity for the commercial operations (e.g. for EDP systems and photocopiers). This is not always possible. In exceptional cases, the standard therefore permits a certain degree of intermixing although this somewhat hinders the comparability of cost indicators.

The structure of the operating costs largely follows the structure of DIN 18960. Four cost groups have been defined, whose sum equals the operating costs:

- Cost of capital (costs arising from the raising of finance)
- Administrative costs (costs arising from services rendered by a third party or for own work required for the administration of the building)
- Operational costs (costs arising from the intended use of the building)
- Repair costs (costs arising from the restoration to the state, in which the building can be used as intended or required)

Furthermore, DIN 18960 distinguishes between these four cost groups on two additional levels. However, these further levels were not fully applicable to the present study. The problem was primarily

the separation of handling, servicing, inspection and repair costs. Incidentally, this separation has been denounced by Richter as being unsuitable in practice. ¹⁵ For the purposes of this study, the above cost groups had to be combined under the term of "maintenance costs", as they cannot be captured separately. This resulted in the following cost groups which had to be captured and then analysed separately:

- Administrative costs
- · Costs of utilities and waste disposal
- · Costs of cleaning and upkeep
- Maintenance costs for structural parts
- Maintenance costs for technical installations

The sum of the above cost groups will hereinafter be referred to as "costs recognised in the profit and loss account".

The cost of capital was excluded from the survey, as — from a theoretical perspective — it is not connected to the outsourcing of property management services. ¹⁶

"m² usable floor area *year" was selected as the functional unit of costs. The provision of usable floor area is the main purpose of a building, as the purpose for which the building is used (for example office work) takes place in this area. A full year was chosen as the period under review in order to cover an entire accounting period and the operating costs incurred.

DESCRIPTION OF DATA MATERIAL

A set of primary data permits the examination of the relationships between the outsourcing degrees of property management and the operating costs. This set concentrates on owner-operated office buildings. The composition of the data set is limited to the four participating project

Table 1: Data material: Outsourcing degrees of property management

	Outsourcing degree [number of properties]				
Technical property management (R = 116)	39: provision of internal services				
	77: provision of external services				
Infrastructural property management (R = 116)	22: provision of internal services				
	94: provision of external services				
Commercial property management ($R = 116$)	39: provision of internal services				
	77: provision of external services				

Table 2: Data material: Operating costs [CHF/m² of usable floor area x year] (costs as at: 2001, exclusive of VAT)

	Lower quartile	Median	Upper quartile	R
Administrative costs	19,70	25,55	29,52	113
Costs of utilities and waste disposal	32,41	38,66	47,27	105
Costs of cleaning and upkeep	31,60	40,76	56,38	113
Maintenance costs for structural parts	8,26	15,17	28,88	116
Maintenance costs for technical installations	34,17	54,92	71,57	116
Costs recognised in the profit and loss account	170,87	205,71	247,14	97

partners, each owning the following number of properties:

- Credit Suisse (77 properties)
- City of Zurich (11 properties)
- SwissRe (11 properties)
- UBS (17 properties)

All of the above project partners are large corporations that are (with the exception of the city of Zurich) part of the banking and insurance industries. No additional partners were included, as the provision of cost data (usable floor area, for example) could not be ensured. However, discussions with potential project partners confirmed that transparent data will be available over the coming years. The setting-up of information management systems is now being prioritised by many real estate owners, which should result in a positive trend.

The properties within the survey sample are located throughout Switzerland, with a certain degree of clustering in the Zurich metropolitan area. The age structure is highly heterogeneous and ranges from 1 to 200 years. The mean property age is 56 years. The property size is also heterogeneous, ranging from 337 to 26,154 m² of usable floor area (mean value of 3,830 m² of usable floor space).

Table 1 shows the outsourcing degrees identified within the sample. It should be noted that the outsourcing degrees show a high level of uniformity within the portfolios of the individual project partners. This means that all 77 properties of Credit Suisse, for instance, show the same degree of outsourcing.

In addition, the operating cost data was collected. Table 2 contains the frequency distribution of this data. The table shows the lower quartile (25% quantile), the

median (50% quantile) and the upper quartile (75% quantile).

The cost data is property-specific, meaning that the survey sample comprises a maximum of 116 properties. However, the survey sample is smaller with regard to the data for administrative costs, costs of utilities and waste disposal and the costs of cleaning and upkeep), as not all transparent cost data was available in each instance due to classification problems (e.g. definition of accounting period).

The relevant cost groups identified during the survey were the maintenance costs for technical installations, the costs of cleaning and upkeep and the costs of utilities and waste disposal. These cost groups have median values between 39 CHF/m² usable floor area x year and 55 CHF/m² usable floor area x year. In contrast, the maintenance costs for structural parts and the administrative costs are of less significance in terms of their amounts. The median of the costs recognised in the profit and loss account is 206 CHF/m² of usable floor area x year.

CAUSAL RELATIONSHIPS

As the outsourcing degrees show a high level of uniformity within the portfolios of the individual project partners (see Table 1) and four project partners were included in the present survey, the causal relationships cannot be subjected to a statistical examination. Any such examination would require a much larger survey sample and the inclusion of additional project partners. The causal relationships identified could then be examined by means of regression analyses.¹⁷

The present study therefore reviewed the cost groups and their sensitivity to the various outsourcing degrees by comparing the quartiles and medians of the cost groups to the relevant outsourcing degrees. In this way, indications as to the sensitivity of costs to the degree of outsourcing are obtained. The results of these comparisons were then presented to the participating project partners and questioned. The aim of these discussions was to determine the reasons for the cost differences identified.

Administrative costs

DIN 18960 defines administrative costs as "the costs for services rendered by a third party or for own work in relation to the human resources and equipment required for the administration of the building or the business entity, the costs of supervision and the value of the administration work carried out by the less or itself. The administrative costs also include the costs of statutory and voluntary audits of the financial statements and the management." 18 Accordingly, those services that incur administrative costs can be classified as the commercial property management previously outlined. In accordance with DIN 32736, this service segment is comprised of:

- Procurement management
- Cost planning and control
- Property accounting
- Contract management

The outsourcing degree of commercial property management, in particular, must be examined more closely on this basis and compared with the collected data on administrative costs. Table 3 contains this comparison, showing that the medians of both degrees of outsourcing differ by more than 40% from each other.

There is a positive causal relationship between the outsourcing degree of commercial property management and administrative costs. In the case of most properties surveyed whose commercial property management has been out-

Table 3: Administrative costs and outsourcing degrees of commercial property management [CHF/m2 of usable floor area x year] (costs as at: 2001, exclusive of VAT)

Commercial property management	Lower quartile	Median	Upper quartile	R
Provision of internal services	15,76	18,69	26,82	36
Provision of external services	23,37	26,54	30,35	77

Table 4: Costs of utilities and waste disposal and outsourcing degrees of infrastructural property management [CHF/m² of usable floor area x yea r] (costs as at: 2001, exclusive of VAT)

Infrastructural property management	Lower quartile	Median	Upper quartile	R
Provision of internal services	27,67	33,72	43,93	18
Provision of external services	33,10	39,28	48,27	87

sourced, the administrative costs were higher.

In the opinion of the project partners, this causal relationship is primarily due to the contractual relationship between the outsourcee and the real estate owner, which requires absolutely transparent property management. This affects, above all, property accounting which has to present, among other things, all payment streams in a transparent fashion and therefore becomes rather complex. This high level of transparency, which evidently also affects procurement management, cost planning and control and contract management, results in high administrative costs. Consequently, from a theoretical perspective and based on the collected, the assumption confirmed that the administrative costs will generally increase when property management services are outsourced. To what extent this increase in administrative costs will be compensated for by savings in other cost groups will be partially examined in the following sections. In addition, exemplary reference is made to the work of Then who shows cost reductions to be realised in particular by using a suitable information management system.¹⁹

Costs of utilities and waste disposal

The cost group for utilities and waste disposal mainly comprises the cost of water and wastewater, heating and electricity. The provision of these facilities and, if applicable, their disposal are functions of the infrastructural property management. For this reason, Table 4 compares the outsourcing degree of infrastructural property management to the costs of utilities and waste disposal. As for the administrative costs, this comparison shows a positive causal relationship between the outsourcing degree and the costs of utilities and waste disposal.

The participating project partners see the cause of higher costs of utilities and waste disposal in the case of outsourced infrastructural property management primarily in the volumes purchased. UBS, for instance, stated that it has a far higher demand for the supply of utilities

Table 5: Costs of cleaning and upkeep and outsourcing degrees of infrastructural property management [CHF/m² of usable floor area x year] (costs as at: 2001, exclusive of VAT)

Infrastructural property management	Lower quartile	Median	Upper quartile	R
Provision of internal services	43,05	63,37	77,04	20
Provision of external services	31,23	38,60	52,90	93

and is therefore in a position to negotiate better prices than is the case for outsourcees. Consequently, the outsourcing of infrastructural property management services would result in increased costs of utilities and waste disposal.

However, this contradicts the introductory notes on the advantages of outsourcing. The argument was that outsourcees combine smaller portfolios and are therefore able to utilise larger purchase quantities and economies of scale. Nonetheless, the survey sample suggests the opposite to be the case, as it is specifically those properties surveyed, which have not been outsourced, that belong to particularly large portfolios, as is the case with UBS. In this case, purchase volumes and economies of scale are counter-indicative to outsourcing, as no additional benefits can be achieved.

Costs of cleaning and upkeep

DIN 18960 groups the cost of cleaning services for the entirety of building and land under the cost type of cleaning and upkeep. This item goes beyond interior cleaning services, which is of relevance for the office usage under review. Added to this are the cleaning costs for flat roofs and the surrounding areas, for example.²⁰

As a rule, these services are attributed to infrastructural property management whose outsourcing degrees must therefore be compared to the costs of cleaning and upkeep, showing (for the first time) a cost reduction through outsourcing (see Table

5). Those properties contained in the sample showed that outsourced infrastructural property management had considerably lower costs of cleaning and upkeep.

As the reasons for the differences in costs identified, the participating project partners cited, above all, differences in service levels (for service level agreements, see Pratt²¹) and hourly wages. The city of Zurich, for example, argues that its comparatively high costs for cleaning and upkeep result from its high hourly wages. However, the city of Zurich feels that it is largely an expression of its social commitment to pay these wages, as it is part of the public service and therefore bears a particularly high responsibility for its staff. This responsibility prohibits the city of Zurich from lowering wages in this area to bring them in line with market prices.

The participating banks, on the other hand, attribute the differences in the costs for cleaning and upkeep of their properties primarily to the service levels, which do not correspond to the high service level of SwissRe in particular.

Maintenance costs

The present paper defines the maintenance costs as the sum of all handling, servicing, inspection and repair costs. These costs are therefore attributable to the technical property management in accordance with DIN 31736 and are broken down into maintenance costs for

Table 6: Maintenance costs for structural parts and outsourcing degrees of technical property management [CHF/m² of usable floor area x year] (costs as at: 2001, exclusive of VAT)

Technical property management	Lower quartile	Median	Upper quartile	R
Provision of internal services	14,51	25,00	40,19	39
Provision of external services	7,09	12,88	24,09	77

Table 7: Maintenance costs for technical installations and outsourcing degrees of technical property management [CHF/m2 of usable floor area x year] (costs as at: 2001, exclusive of VAT)

Technical property management	Lower quartile	Median	Upper quartile	R
Provision of internal services	49,22	71,47	100,86	39
Provision of external services	32,35	46,08	63,65	77

structural parts and maintenance costs for technical installations.

As with the costs of cleaning and upkeep, the maintenance costs for structural parts indicate a negative causal relationship when compared to the outsourcing degrees of technical property management. The maintenance costs are lower for those properties whose technical property management has been outsourced (see Table 6).

As with the maintenance costs for structural parts, the maintenance costs for technical installations shows a negative causal relationship (see Table 7). With regard to the maintenance costs contained in the survey sample, it should be noted that they are lower for properties whose technical property management has been outsourced.

The project partners are in agreement that the causes for the specific causal relationships depend on the maintenance strategy employed. It was noted, for example, that outsourcees tend to perform less preventive maintenance work, as they are subject to greater cost pressures than the persons responsible for the specific properties within the CREM divisions. While the persons responsible for the specific properties at SwissRe and UBS, for instance, pursue a preventive maintenance strategy, the persons responsible for the specific properties at Credit Suisse only carried out emergency maintenance measures. This can be described as a maintenance backlog which may result in higher costs in the future.

To what extent the outsourcing really impacts on the maintenance costs in these cases is unclear. Instead, differing maintenance strategies are noted, which are implemented by the persons responsible for the specific properties, irrespective of whether or not the relevant services are provided internally or externally.

DISCUSSION OF RESULTS

As the properties surveyed show, commercial property management primarily impacts on the administrative

costs. The office buildings examined incurred higher administrative costs when commercial property management was outsourced. Similarly, the costs of utilities and waste disposal were higher for real estate with outsourced infrastructural property management. An inverse relationship was identified in respect of the cleaning costs, where the costs were lower when outsourcing infrastructural property management. The impact of technical property management became apparent with regard to maintenance costs, which were lower for real estate outsourced technical property management. On balance, the situation appears to be rather heterogeneous. It was noted that outsourcing resulted in higher costs for some cost groups and in lower for others. However, costs maintenance costs as well as the costs of cleaning and upkeep for properties with outsourced property management services, which are significant due to the amounts involved, were lower.

These statements should be read in the light of an underlying survey sample of four project partners who provided the data. The outsourcing degrees proved to be specific to the individual project partners; therefore the outsourcing degrees of the survey sample show little variation. Thus, the relationships identified between outsourcing degrees and operating costs could not be confirmed statistically. However, two further results obtained by this study underpin the relationships as presented. Firstly, the interviews held with the participating project partners confirm the above statements. Secondly, the frequency distributions identified for the cost groups examined could not be explained by any unrelated variable within the study. For instance, the costs of cleaning and upkeep do not correlate with the glazed area of faade, the year of construction or the type

of ground plan, but rather with the degree of outsourcing. Thus, the results of this study can be considered to be well substantiated hypotheses which require verification by means of future analyses.

It was not only the data collected, but also the interviews with the participating project partners, and the introductory theoretical considerations, that demonstrated that outsourcing property management services may result in a reduction in costs. Outsourcing can therefore be an integral part of cost reduction measures for owner-operated real estate. However, it should also be noted that outsourcing takes place in tandem with other measures, such as:

- Process optimisation
- · Changes in user behaviour
- Improvements in cost transparency
- Consolidation of purchase volumes

In fact, these and other measures of reducing costs are often associated with outsourcing, which means that outsourcing in most cases results indirectly (via those measures) in cost reductions. The authors are therefore of the opinion that the same cost reductions could be realised if the CREM division was to consistently implement said cost-reducing measures. In such cases, outsourcing would not be absolutely necessary. However, the authors believe that it is the outsourcing of services in particular that enables companies to successfully realise cost reductions with regard to their owneroperated real estate.

In contrast, CREM divisions often do not have access to the same opportunities, which would explain the largely positive development of the real estate management sector over recent years.²² In particular, the outsourcing of services in the area of property management played an important role in this development. In

some cases, the outsourcing of these services is effected by comprehensive leasing agreements. It is therefore likely that the issue of occupancy costs and outsourcing will continue to gain in topicality.²³

REFERENCES

- (1) DIN Deutsches Institut für Normung e. V. (German Institute for Standardization) 32736 (2000) "Gebäudemanagement: Begriffe und Leistungen" (Property management: terms and services), DIN, Berlin.
- (2) McDonagh, J. and Hayward, T. (2000) "Outsourcing corporate real estate asset management in New Zealand", *Journal of Corporate Real Estate*, Vol. 2, No. 4, pp. 352.
- (3) Stoy, C. and Kytzia, S. (2004) "Strategies of corporate real estate management: Strategic dimensions and participants", *Journal of Corporate Real Estate*, Vol. 6, No. 4, pp. 353–370.
- (4) pom+Consulting and ETH Zurich (2002) "FM Monitor 2002: Der Schweizer Facility Management-Markt im Überblick" (Overview of the Swiss facility management market), pom+Consulting, Zurich 2002, p. 36
- (5) GSD Graduate School of Design (2003) "Public Housing Operating Cost Study", GSD, Cambridge.
- (6) BMI Building Maintenance Information (2003) "Review of Occupancy Costs 2003", BMI, London.
- (7) Only the study completed by the ETH Zurich regarding causal relationships between real estate management strategies and operating costs provides any indications regarding the impact of the outsourcing degree. Said study is the starting point for the study presented in this paper. Stoy, C. and Kytzia, S. (2004), ref. 3 above, pp. 353–370.
- (8) McDonagh and Hayward (2000), ref. 2 above, pp. 351–371.
- (9) pom+Consulting and ETH Zurich (2002), ref. 4 above, p. 52.
- (10) pom+Consulting and ETH Zurich

- (2002), ref. 4 above, p. 36.
- (11) Pratt, K. T. (2003) "Introducing a service level culture", *Facilities*, Vol. 21, No. 11/12, pp. 253–259.
- (12) Ambrose, B. W./Highfield, M. J. and Linneman, P. (# 358) "Economics of Scale", Samuel Zell and Robert Lurie Real Estate Center, The Wharton School, University of Pennsylvania, Working Paper # 358.
- (13) DIN Deutsches Institut für Normung e. V. (German Institute for Standardization) 18960 (1999)
 "Nutzungskosten im Hochbau"
 (Running costs of buildings), DIN, Berlin, p. 2.
- (14) Cf. DIN Deutsches Institut fr Normung
 e. V. (German Institute for
 Standardization) 18960 (1976)
 "Nutzungskosten im Hochbau"
 (Occupancy costs of buildings), DIN,
 Berlin.
- (15) Richter, P. (1997) "Objektmanagement mit Architekten! (... oder ohne?)" (Property management with — or without? — architect", Deutsches Architektenblatt, No. 9, pp. 1291–1294.
- (16) DIN Deutsches Institut fr Normung e. V. (German Institute for Standardization) 32736 (2000) "Begriffe und Leistungen: Gegenüberstellung von Leistungen" (Terms and services: comparison of services), DIN, Berlin.
- (17) Cf. Stoy, C. and Kytzia, S. (2004), ref. 3 above, pp. 353–370.
- (18) DIN 18960 (1976), ref. 14 above, p. 4.
- (19) Then, D. S.-S. (1995) "Computer-aided building condition survey", *Facilities*, Vol. 13, No. 7, pp. 23–27.
- (20) DIN 18960 (1976), ref. 14 above, p. 4.
- (21) Pratt, K. T. (2003), ref. 11 above, pp. 253–259.
- (22) Jones, O. J. (1997) "Responding to the challenge: a professional services perspective", *Facilities*, Vol. 15, No. 3/4, pp. 92–96.
- (23) Adamshick, L. T. S. (1995)
 "Understanding operating cost escalations from a tenant's perspective", Facilities, Vol. 13, No. 4, pp. 17–19.