BA BROOKER, TL WEBB & MS BADENHORST¹

The lease evaluation process for office buildings occupied by state departments in South Africa: An evaluation

Abstract

The Department of Public Works leases close on two million square metres of office space for state departments in South Africa. The department follows an extensive lease evaluation process, including a multifaceted evaluation on aspects such as suitable depth of space versus natural light, appropriate electrical distribution for the planned office lay-out and an evaluation of the amount of partitioning that will be required as a function of shape on plan. A questionnaire survey was conducted among Public Works Department leasing officials to establish the extent and depth of their knowledge of these factors. It was concluded that the existing lease evaluation has many strong points. The survey results, however, indicated serious limitations to the existing understanding of leasing officials of crucial aspects in the evaluation process. Proposals are presented to improve on the process in general. **Keywords**: Lease evaluation process, Public Works, South Africa.

DIE HUUR-EVALUERINGSPROSES VAN KANTOORGEBOUE VIR STAATSDEPARTEMENTE IN SUID-AFRIKA: 'N EVALUERING

Opsomming

Die Departement Openbare Werke huur sowat twee miljoen vierkante meter kantoor-ruimte vir staatdepartemente in Suid-Afrika. Die Departement volg 'n omvattende huur evalueringsproses, insluitende 'n meervoudige evaluering van aspekte soos geskikte diepte van die ruimte teenoor natuurlike lig, toepaslike elektriese bekabeling vir die beoogde kantooruitleg, sowel as 'n evaluering van die afskortings wat benodig word as 'n funksie van planvorm. 'n Vraelysopname is onder huurbeamptes van die Departement Openbare Werke onderneem om die omvang en diepte van hul kennis aangaande bogenoemde faktore vas te stel. Dit het geblyk dat die huidige huur-evaluering as sodanig verskeie sterk punte het. Dit het nietemin geblyk dat daar emstige beperkings bestaan wat betref huurbeamptes se begrip van kritieke aspekte wat met die huur-evalueringsproses verband hou. Voorstelle word aan die hand gedoen om die proses in die algemeen te verbeter.

Sleutelwoorde: Huur-evalueringsproses, Openbare Werke, Suid-Afrika.

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Introduction

The Department of Public Works has two methods of providing office accommodation for government departments, namely, the development of new office buildings and the leasing of existing office buildings. The socio-economic priorities of the present government have decreased the funds available for the construction of new office accommodation. Approximately 1,86 million m² of office accommodation is presently leased in South Africa by the Department of Public Works. During 1995/96, 203 new leasing contracts were concluded, 158 were cancelled and 2 624 were administered. The net rental expenditure for 1995/96 was R550 million, an increase of R40 million (8%) on the 1994/95 amount of R510 million (Department of Public Works, 1995).

This paper focuses on the lease evaluation process of the Department of Public Works in South Africa. The South African government enters into over two hundred new lease contracts per year, which results in a substantial amount of money and time being spent in lease contract decision-making. Poor space utilisation has resulted in an increase in total area leased which has a direct effect on other cost factors which are proportionate to the total area leased such as lighting, heating, security and cleaning of the leased accommodation. These related expenses also contribute to an increase in total lease expenditure for government departments. Energy efficiency and the sick building syndrome, are however, not considered here.

Factors impacting on space utilisation

The theory of factors that influence the utilisation of office space can be divided into two main groups. The first group includes the type of tenant, its organisational structure and the operational requirements of the tenant. The second group includes the morphological factors of the building under consideration, such as the shape and height of the building, the floor to ceiling height and the depth of space. The above factors influence both the total amount of rentable area required as well as the running cost per m² for the tenant.

The two major objectives in establishing the operational aims of the state department requiring office space is to tabulate the amount of space necessary to house the organisation and, secondly, to translate a two dimensional organogram into three dimensional office space (Saphier, 1968).

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Documents that will assist in the establishment of operational requirements include the existing floor plans of the organisation under inspection and the personnel list of the organisation. An inspection *in loco* of the existing premises, together with a member of a central state department, would yield greater insight into the interrelationships within a central state department.

Bailey (1990) states that large corporate organisations involved in a variety of business endeavours would have many departments at the same level in the organisational hierarchy. A relatively low rate of change will occur in large organisations, due to the fact that any major restructuring of these organisations would impact on all departments as a result of dependencies within the organisation. The type of office space that would suit a large organisation is invariably open plan office space.

The nature and size of the user department, the hierarchy and status of the people employed within the user department, and the security requirements of the user department, will influence the organisational requirements of the office space to be selected.

The shape on plan of the office building is one of the most important criteria that will have the greatest influence on the rentable/usable (R/U) ratio of office space leased (Towsend, 1983). The circle is the shape that has the smallest perimeter in relation to area. But circular buildings seldom produce an efficient use of internal space (Seeley, 1983). Generally the simpler the shape, the better the R/U ratio will be. Irregular shaped office buildings usually result in more circulation space as well as more "dead space".

Shallow space that is usually associated with linear-shaped buildings makes full use of daylight and outside awareness, and can permit natural ventilation where this is desirable (Dashing Office Furniture, 1995). This type of space is, however, negatively affected by the large areas of external facade that will permit unwanted heat gains in summer and excessive heat loss in winter.

Medium depth space has been very popular with those developers speculating in office rentals in the nineties. Part of the space is naturally lit, while the internal area furthest away from the windows is artificially lit. The deeper the office space, the longer the time period that will require artificial lighting.

Bailey (1990) and Joedicke (1962) states that by having usable office space on both sides of the circulation area, the R/U ratio

would be more efficient than a building with only office area on one side of the circulation area.

An increase in the total height of a building will decrease the rentable/usable ratio. High rise office buildings have a direct influence on increasing the annual operating cost for central state departments. To support this statement, Seeley (1983) states that the presence of vertical transportation in the form of lifts and staircases necessarily increases the amount of related horizontal circulation space.

Fire protection becomes an important factor in high-rise buildings, and it is important for leasing officials to be aware of the regulation as detailed in the National Building Regulations. Larger buildings require wider passages, which increases the amount of unusable rentable office area.

Notwithstanding the fact that rentable area is measured in a horizontal plane, increasing the floor to ceiling height has an effect on the rentable usable ratio. If the office building is airconditioned, an increase in the area of external facade per floor would increase heat gains, resulting in a need for additional conditioned air (Ferry & Brandon, 1991). The increase in floor to ceiling height increases the volume of air in the office space to be air-conditioned.

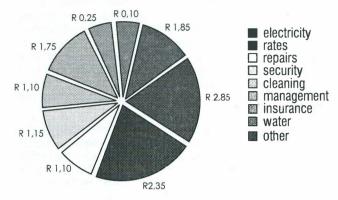
Operating costs

When evaluating the cost implications of leasing one office building over that of another office building, most tenants focus on the rental rate per m^2 (Posner, 1990). Very few tenants place enough emphasis on the operating costs relating to a particular office building. Operating costs of office buildings are those costs that keep the building operational during the period of the lease (Spedding & Holmes, 1994). Cleaning, repairs and maintenance, electricity, water, security and property management fees are some of the operating costs that must be determined to establish the total leasing cost (BOMA, 1994). The net rental rate, together with the operating costs, make up the gross rental rate for a building. The average operating cost per month for A-grade office space as indicated in Figure 1 is R12.50 per m² (Rode, 1996). Operating costs can account for 25 % of total leasing costs and, as a result, form an important part of the lease evaluation process (Barrett, 1995).

At the start of a lease contract, there are initial costs that only occur once during the leasing contract period. These initial costs include stamp duty, legal fees and installation costs. These costs can be paid by either the tenant or the landlord, depending on

FIGURE 1

Operating costs for an office building



the conditions of the lease contract and, as a result, have a bearing on the total leasing cost (Walker, Undated; Timm, 1987).

It can be established that the impact of initial costs and running costs associated with a new lease contract are significant. Each cost type is influenced by many factors e.g. the shape of the office building being leased, the management capacity of the building administrators, and the quality of the design, specification and construction methods employed to develop the office building.

Certain operating expenses such as electricity can be controlled by the tenant, while other expenses such as security and maintenance, are not controllable by the tenant and, as a result, place the tenant in a position that will limit his potential to keep operating expenses to a minimum (McKeever, 1968). The impact of operating costs and installation costs on total leasing costs clearly shows that these costs should not be ignored in the lease evaluation process.

Overview of the lease evaluation process since 1967

In 1967, the then secretary of the prime minister issued guidelines for the administration of accommodation for central government departments. These guidelines formed the basis for the evaluation of leased office accommodation by the Department of Public Works (Department of the Prime Minister, 1967). A new manual on leasing was issued in 1982 by the head office of the Department of Public Works (Department of Community Development, 1982). In September 1989, the Office of the Auditor

General released a report on leasing administration in the Department of Public Works. This report drew attention to the present method of lease evaluation undertaken by the Department of Public Works and high-lighted the shortcomings of the evaluation process (Office of the auditor general, 1989). This report was followed by an investigation of four user departments to determine the average leasing cost per person for each department. This investigation lead to the implementation of new space norms for office accommodation (Department of Public Works, 1993). It can be concluded that the lease evaluation process continually evolves, and that the process discussed, reflects the present process.

The first step in the evaluation process is the identification, by a central government department that a need for additional office accommodation has arisen. Based on the schedule received from a central state department, the accommodation control section of the Department of Public Works establishes the total amount of usable and rentable area required. The method used for determining the total area required is done in accordance with the guidelines set out in a document entitled "Space and Cost Norms for Office Buildings Funded Wholly or Partially by the State" (Department of Community Development, 1987). These space norms were adjusted in 1993 after an investigation initiated by the Cabinet Standing Committee for Expenditure (Department of Public Works, 1993).

Each rank of staff is allocated a particular size of office. Norms for storage space, filing space and meeting space are also used to establish the total assignable area. The non-assignable area is calculated as a percentage of the assignable area, $\pm 20\%$. The non-assignable area includes circulation area, toilets and foyers. The combination of the assignable and non-assignable areas constitutes the total rentable area required. If it is found that funds are available, then the financial approval document is sent to the leasing section for further processing.

If the total rentable area approved exceeds 1 000m² in extent, then the Department of Public Works will be expected to advertise the request for space in two local newspapers (State Tender Board, 1993). If the space required is to be located in a CBD of a major city or town, and many buildings are known to be vacant or partly vacant, the Department of Public Works may advertise for space less than 1 000m² in extent.

Once all offers to lease are received within the allotted time frame, the offers are opened in front of two representatives of the regional office of the Department of Public Works. All offers to lease are recorded on a summary evaluation sheet. It is noteworthy that large amounts of information requested in the offer to lease form are excluded from the summary evaluation sheet. Leasing section officials evaluate all offers to select the most suitable office accommodation. Those offers of accommodation that do not comply with the requirements of the advertisement, are excluded from the list.

An inspection of the remaining office accommodation is undertaken by members of the leasing section, the central state representative requiring office space, and the property broker, who is representing the landlord of the accommodation offered. They must establish whether or not the office accommodation is suitable for occupation by a central government department. This inspection that entails approximately twenty minutes per building visited, requires those present to make a multi-faceted and integrated evaluation on aspects such as suitable depth of space versus natural light, appropriate electrical distribution for the planned office layout, and an evaluation of the amount of partitioning that will be required as a function of shape on plan. It was the obvious importance of this particular stage of the evaluation process which prompted the issuing of a questionnaire to Public Works Department leasing officials to establish the extent and depth of their knowledge of the factors pertinent to the decision-making process (Brooker, 1998).

A recommendation is then made to the leasing committee for the approval of the selected accommodation. The selection of the most suitable lease is usually based on the net rental, percentage escalation, area offered to lease, installation cost, running costs, and maintenance costs. Once the evaluation process is completed, the signing of the lease contract takes place.

Survey

In an endeavour to establish the extent of state official understanding of the influence of shape and layout factors on the suitability of office accommodation for leasing, a questionnaire survey was compiled. The results of survey are documented to establish, in effect, the current understanding of lease officials in the Department of Public Works in the evaluation of office accommodation.

A total of 25 questionnaires were mailed to all seven regional offices and to the head office of the Department of Public Works. Three leasing officials per regional office were requested to each complete a questionnaire, whereas four officials at the head office were requested to complete the questionnaire.

A total of 16 questionnaires were returned (64%). At least one return per region was received. The response rates of the survey are depicted in Table 1.

Description	Total responses	Not returned	Total dispatched
Bloemfontein Regional office	1	2	3
Durban Regional office	3	0	3
Johannesburg Regional office	1	2	3
Pretoria Regional office	1	2	3
Cape Town Regional office	2	1	3
Kimberley Regional office	1	2	3
Port Elizabeth Regional office	3	0	3
Pretoria Head office	4	0	4
Total No (%)	16 (64%)	9 (36%)	2.5 (100%)

Table 1: Response rates for questionnaire

The results of the survey are henceforth discussed.

Shape of the cellular office

The respondents were requested to indicate which office layout presented in *Figure* 2 is considered the most suitable for meeting the working space requirements of a state official. This question sought to establish the respondents' understanding of the relationship between the shape of the office and the functional requirements of the state official requiring office accommodation. Moreover, it sought to determine the relationship between the shape of the office and the amount of circulation space that is generated as a result of a particular shape.

None of the respondents selected office 'A' as the most suitable office shape for meeting the working space requirements of a state official. Sixty-nine percent of the respondents selected office 'B' as the most suitable office layout of the three options depicted in *Figure 2*. The most commonly cited reason by respondents for selecting this office layout is that the office is more suited to the furniture requirements of a state official. One respondent stated that his reason for selecting that particular office is that it would provide more natural light. This reason is, in fact, incorrect as office 'C' has more external window area and

is a more shallow office than office 'B'. Thirty one percent of the respondents selected office 'C'. The reason given was the same as that given for the selection of office 'B' viz., a more suitable shape of office to meet the furniture requirements of a state official. The responses to this question are summarised in *Table 2*.

1.5 m 6 m 2 m Office $A = 12 \text{ m}^2$ 1.5 m 4 m 3 m Office $B = 12 m^2$ 1.5 m 3 m 4 m Office $C = 12 m^2$

FIGURE 2 Shape of the cellular office

Description	Office A	Office B	Office C	Total
Most suitable office	0	11	5	16

Table 2: Selection of cellular office type

The question relating to the shape of offices was correctly answered by most (68%) of the respondents, but none of the respondents quantified their answer by stating that the circulation area for office 'C' is 6m² while the circulation area of office 'B' is only 4,5m². In other words, office 'B' contains 25% less circulation space than office 'C', remembering that the circulation area is included in the rentable area of a building. According to the Department of Community Development (1987), circulation area for a typical office building is 20% of the assignable area.

Cable distribution network

Respondents were requested to indicate the type of cable distribution network they would select for an open plan office building. As the information technology requirements of office workers increase, so does the demand on technology increase to satisfy the cable distribution requirements of a building (Camrass and Barrow, 1988). An unsuitable cable distribution network would potentially limit the office layout potential which, in turn, would increase the amount of rentable area required to meet the needs of a state department. An ability to recognise the cable distribution requirements of a particular state department is therefore needed in the selection of the more suitable office accommodation for a state department.

Cellular and open plan offices require different cable distribution networks to suite the office equipment requirements of state officials. System 'A' is more suitable for cellular offices and is most likely to be the cheapest form of distribution. Moreover, such a network distribution is unlikely to disrupt the circulation of people. However, alterations involving the cutting of new holes and chases, will result in considerable disruption. System 'A' is ideal for cleaner's sockets in passages, providing permanent supply positions. Systems 'B', 'C' and 'D' are more suited to open plan offices as they allow for final distribution to work stations from any position of the cable distribution network.

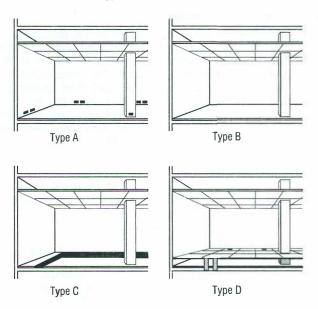


FIGURE 3

Selected types of cable distribution networks

Respondents were asked which cable distribution network in Figure 3 best suits an open plan office.

Table 3: Selection o	of cable	distribution	network
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Descrip- tion	System A	System B	System C	System D	Total
Selection of system	2	2	5	7	16

Most (75%) of the respondents selected systems 'C' and 'D', stating that the power point can be moved, thereby not limiting the placing of workers. This reasoning is correct as the constraints on an ideal office layout are reduced. Although this reasoning is valid, one should note that the access flooring system is only needed if the demand for power and related cabelling is above the average demand, for example, in a main-frame computer room (Bailey, 1990). The selection of an access flooring system would be excessive for the typical requirements of the average administrative official. One respondent stated that the cost of

systems 'B', 'C' and 'D' would be very high. Although this may be true, these costs do not necessarily impact directly on the rental amount to be paid by the state.

Structural frame of the building

Identifying and evaluating the impact of the structural frame of the building is important in determining the usable portion of the office building. Both buildings depicted in Figure 4 have the same shape and external dimensions. The major difference between the two buildings lies in the fact that building 'B' has much larger columns than building 'A' due to the fact that it is a twenty storey building. The larger columns will decrease the amount of usable area in relation to rentable area. Ideally, a leasing official should be able to identify the impact of the structural frame on the rentable/usable (R/U) ratio.

The rentable area is $200m^2$ and the usable area is $186m^2$ for building 'A', while for building 'B', the rentable area is $200m^2$ and the usable area is $175m^2$. The responses to this question are depicted in Table 4.

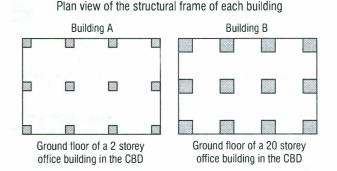


FIGURE 4

Table 4: Structural frame of each building

Description	Building A	Building B	Total
Building selected	11	5	16

Sixty-nine percent of the respondents selected the most appropriate option, but only half of these stated that building 'A' has the most usable space. Some of the other reasons given for the choice of option 'A' included the notion that the smaller columns will not restrict the view of workers and visitors, and that more parking will be available in this building. How these respondents established the effect on parking availability is unknown to the author, but this response clearly shows that most leasing officials are unable to identify those aspects of design that improve the R/U ratio.

The reasons given for the selection of building 'B' include the opinion that this building could more easily be identified due to its height. Although this statement is correct, the respondents were requested to confine their responses to measurable items such as area and cost. Other respondents stated that it would result in better utilisation of office space, which, in fact, is incorrect.

None of the respondents stated unambiguously that the type of structural frame and the height of the building would have a direct influence on the amount of usable area in relation to rentable area, although most (69%) had selected the correct building for other reasons.

System of partitioning

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The system of partitioning selected by the leasing official for the administrative section of a state department will have an influence on both the usable area of the office building and on the possible types of office layouts available to the occupants (Boje, 1971). The selection of a particular partitioning system will reflect the understanding of the leasing official with regards to the needs of the occupants, i.e. flexibility to change spaces continually or the need to increase the amount of usable area due to the thickness of the partitioning system. Three systems of partitioning were proposed, namely:

- studwork and plasterboard

proprietary relocatable system

partition system A partition system B partition system C

Types of partitioning systems

FIGURE 5

The amount of money that is usually provided by the lessor for the initial installation of the offices must be deducted from the total cost required to partition the offices. Partition system A is not suitable for any changes that may take place in the organisation, due to the relatively permanent nature of the construction. Changes to office layout would be disruptive to the occupants and costly. Partition system B would allow for the limited change that might occur in a mature organisation, while still maintaining a suitable level of acoustic performance and structural stability. A stud or plasterboard system can be re-used, potentially decreasing the cost of future changes in the office lavout. Partition system C is used in open plan offices, and is more suitable for organisations with continually changing needs, as the system can be relocated with limited inconvenience during the lease contract. System B is, at present, best suited to meet the needs of a state department, as cellular offices dominate the space requirements of user departments. The responses to the question on the selection of partitioning systems are depicted in Table 5.

Table 5: Selection of	partitioning systems

Description	Partition system A	Partition system B	Partition system C	Total
Selection of sys- tem	0	2	14	16

Eighty-seven percent of the respondents selected the proprietary relocatable system (system C), stating that it would facilitate easy and inexpensive re-arrangement if modifications to office layout are desired. This answer is correct, but the initial cost of this type of partition system is expensive and the probability of change in a mature organisation is relatively low. The remaining thirteen percent of respondents selected the studwork and plasterboard system (system B). The reasons given for selecting system B are that this system is relatively cheap and easy to relocate.

One can conclude from these findings that most leasing officials attach value to the benefit of being able to relocate partitioning, even though the amount of changes made in state departments is not very high, if historical changes in state departments are taken into account.

Storage criteria

The ability of a leasing official to identify criteria that will enhance the storage capability of a building is important. Appropriate selection of storage space will decrease the rentable area needed to accommodate departmental files.

Due to the nature and size of state departments, storage space for files consumes large amounts of usable space in each building leased by the state respondents' decision criterion and reasons for selecting office space for the storage of files are listed below.

Criteria	Reason for selec- tion	Number	
Floor strength	to support heavy loads	7	
Large open spaces	to maximise rack space	6	
Fire protection system	since material is flam- mable	4	
Basement area or lower floors	due to excessive floor loads	6	
Appropriate lighting	to prevent miss-filing	3	
Ventilation or air condi- tioned	to prevent rotting	6	
Provision for security and safes	to prevent theft	8	

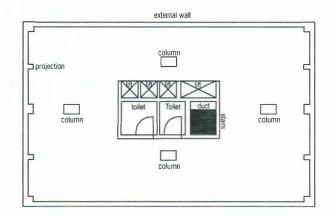
From the above list of criteria, one can conclude that most leasing officials appreciate the requirements for storage space. The only criteria that was not listed by the respondents was the influence of floor to ceiling height on storage capacity. In essence, storage space required is not determined by area, but rather by volume. The addition of 400mm of height to a typical floor would decrease the required area for storage by some 12 percent (Panero and Zelnik, 1979).

Understanding the definition of rentable area

Clearly, it is important for state officials to possess an understanding of the definition of rentable area in order that they appreciate the implications for the determination of rental. Respondents were provided with a hypothetical plan layout (*Figure 6*) and requested to illustrate the areas to be included in the rentable area of an office building as defined by the SAPOA method of measuring floor area (SAPOA, 1992).

FIGURE 6

Floor plan for measurement of rentable area



Responses to this question are given in Table 6.

Name of Area	Correctly indicated on plan	Incorrectly indicated on plan
Toilets	8	8
Columns	4	12
Projections	0	16

Only fifty percent of the respondents correctly included the toilets in the rentable area, with only twenty-five percent correctly including the columns. All respondents incorrectly omitted the projections for the determination of rentable area. It can be concluded that most (66%) leasing officials do not have an acceptable understanding of which areas are included in the rentable area of a building. This shortcoming must potentially limit their ability to evaluate the difference between buildings offered to the state for leasing purposes.

Respondents were then asked to comment on areas to be excluded from the deter-mination of rentable area. The responses to these questions are given in *Table 7*.

Table 7:

Areas not to be included in the rentable area

Name of Area	Correctly excluded on plan	Incorrectly excluded on plan
External wall	14	2
Duct	14	3
Staircase	13	3
Lifts	13	3

Most respondents (85%) have a much better understanding of which areas are not included in the rentable area of the office building.

As respondents would seem to have difficulty in identifying the exact rentable area on plan, one can conclude that they would have difficulty in identifying the same at a site visit to a building offered for lease, if the building under scrutiny has numerous columns and projections which would decrease the available usable area, which would result in the state department leasing more space.

Shape of the building on plan

Cellular offices of $12m^2$ are more suited to shallow space buildings than deep space buildings. For example, the shallow floor space of building 'B' maximises the use of daylight and outside awareness and can permit natural ventilation where this is desirable (Stone, 1980). Building 'B' is more suited to housing the small cellular offices of a government department than building 'A'. Building 'A' is more suited to open plan office accommodation with its deep space layout (*Figure 7*).

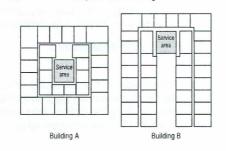


FIGURE 7 Shape of office buildings

Description	Building A	Building B	Total
Number of re- spondents that selected a par- ticular building that best suited cellular office space	7	9	16

Table 8: Shape of office buildings

Forty-four percent of the respondents incorrectly selected the deep space building, building 'A', stating the following reasons for the selection (*Table* 8):

- ♦ Better utilisation of office space
- ♦ Each office will have a window and a door
- ♦ Easy access to service areas for all offices
- ♦ Easy to arrange office-layout and functional.

The remaining fifty-six percent of the respondents selected the more suitable building to accommodate the government department. The following reasons were given for the selection:

- More offices can be accommodated in the building
- ♦ More natural light
- ♦ Offices of 4m x 3m can be accommodated, each with a window
- ♦ Cross ventilation will work and no air-conditioning needed
- \diamond Easy to partition.

These survey results indicate limitations to the existing understanding of leasing officials of the Department of Public Works.

Proposed changes

The proposed changes are presented to ensure that the aims and objectives of the Green Paper for the Department of Public Works (Public Works Department, 1996), are achieved.

Proposed changes to a central state department's requirements

User department accommodation schedules should focus on function rather than status in determining the amount of office area required. Status should only be taken into account if it has an impact on additional office space been required to fulfil the

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function of the official. A better understanding of functionality can be achieved by studying work flow, staff interaction, shift work and current utilisation rates for areas such as meeting rooms and conference facilities of a central state department.

An interview with the management of a central state department is encouraged to ensure that this central state department accommodation schedules reflect present and future utilisation rates for the office accommodation required. Accommodation schedules should be prepared by a central state department in accordance with the space norms document entitled "Space and Cost Norms for Office Buildings Funded Wholly or Partially by the state" (Department of Community Development, 1987), to ensure that the evaluation of space required is not duplicated by the Department of Public Works.

Proposed changes to the Department of Public Works head office evaluation section

The terminology relating to rentable and usable area used by the Department of Public Works should fall in line with the terminology advocated by the South African Property Owners Association (SAPOA, 1992). The quality of office buildings required by a central state department should be classified as either A, B or C grade office buildings.

More open plan office norms should be incorporated into the office space accommodation requirements of user departments, and if a high percentage of cellular offices is required by the user department, only shallow space buildings should be selected for occupation by a central state department.

Proposed changes to the Department of Public Works' regional office evaluation

The allocation of appropriate resources and time to the lease evaluation process of the regional office should be directly related to the capitalised value of the proposed lease contract. The capital value will be determined by the size of office area, the duration of lease contract and the standard of office accommodation required. Appropriate resources would include the training of existing lease officials so that they can contribute more meaningfully to the correct selection of leased office accommodation.

The length of time for which the required space is advertised and the response period for landlords and brokers to respond to the request for office space should be related to the capitalised value for the required lease contract.

The regional office should ensure that the rentable area of the office buildings offered for lease is correct. Once the rentable areas are established, office layout drawings should be prepared to establish if the office space requirements of the user department can be met in each of the buildings offered for lease. To reduce the amount of time that is required to produce layout drawings, landlords and brokers can be requested to produce layout drawings that meet the requirements of the user department. To assist the landlords and brokers to produce the layout drawings, the accommodation schedules of the user department can be given to them.

Once the rentable area is established, based on the layout drawings and the offer to lease form, a financial model can be used to calculate the net present value of each lease offered by the landlords and brokers. As operating costs are an important part of the lease contract, all offers to lease should include each operating cost, the party responsible for the payment of each cost, and the method used to determine these costs. To ensure that an appropriate value is attached to each operating cost, a data base of operating costs incurred by each user department for different grades of office buildings should be developed and managed by the Department of Public Works.

Before the *in loco* inspection of each office building is undertaken, a checklist should be compiled by the leasing officials together with the technical staff to ensure that all aspects of the office building are inspected to establish the suitability of the building for occupation by the user department. The checklist may include information on the location of the building and its surrounding environment, the age and condition of the office building, and the quality of the existing services within the office building. Energy efficiency and the sick building syndrome should also be part of the evaluation.

More time should be taken by the regional office-leasing officials in establishing the existing condition of the office buildings offered for lease. Once the condition of the office buildings is established, the leasing officials can determine if the amount of money made available for partitioning, finishes and services is sufficient to meet the requirements of a central state department's office layout and service installation.

A standard proposal form should be used for easy comparison between different office buildings by the head office leasing committee. The use of a standard proposal form would also ensure that no important information was excluded from consideration by the head office leasing committee.

Proposed changes to the Department of Public Works head office leasing committee evaluation

The head office leasing committee should evaluate each offer received in response to the advertisement placed in the local newspaper. Only information received from the landlords and brokers in response to the offer to lease and additional information gathered at the *in loco* inspection should be tabled at the meeting.

Those buildings offered for lease that do not meet the requirements of a central state department should not be discussed at the leasing committee meeting. Only the remaining buildings should be discussed, covering the salient features such as the net present value of each lease contract, the location of each office building, and the quality of each office building. Once all the buildings have been discussed, the lease contract with the lowest net present value that is able to meet the requirements of the user department should be selected for occupation by the user department.

Conclusion

In conclusion, this investigation has shown that the existing process for lease evaluation has many strong aspects, such as wellcalculated space norms and an appropriate model for determining the net present value of each lease offered. However, the leasing officials that are expected to execute the lease evaluation process are not suitably trained to ensure that the most suitable office accommodation is leased by the Department of Public Works.

References

BAILEY, S. 1990. Offices: A Briefing and Design Guide. London: Butterworth, Architecture.

- BARRETT, P. 1995. Facilities management: Towards best practice. Oxford: Blackwell Scientific.
- BOJE, A. 1971. Open-plan offices. London: Business Books Limited.
- BOMA. 1994. Experience exchange report: Income/expenses analysis for office buildings. BOMA, Washington, D.C.
- BROOKER, B. 1998. An investigation of the lease evaluation process for office buildings occupied by state departments in South Africa. Unpublished M (T&RP)-thesis. University of Pretoria. Pretoria.
- CAMRASS, R. & BARROW, M. 1988. Information technology and the office, in proceedings of The high tech building seminar, Cape Town.

- Dashing Office Furniture. 1995. Office occupation South African style. SAPOA News, June, pp. 21 - 23.
- Department of Community Development. 1982. Leasing accommodation handbook. Department of Community Development, Pretoria.

Department of Community Development. 1987. Space and cost norms for office buildings funded wholly or partially by the state. Department of Community Development, Pretoria.

- Department of Public Works. 1993. Report on the accommodation expenses on user departments. Department of Public Works, Pretoria.
- Department of Public Works. 1995. Annual report. Department of Public Works, Pretoria.
- Department of Public Works. 1996. Green paper: Public Works Towards the 21 st Century. Department of Public Works, Pretoria.
- Department of the Prime Minister. 1967. Function of the Department of Public Works: Circular No. 10 of 1967, Department of the Prime Minister, Pretoria.
- FERRY, D.J. & BRANDON, P.S. 1991. *Cost planning of buildings*. Sixth Edition, Oxford: Blackwell Scientific Publications.

JOEDICKE, J. 1962. *Office buildings*. London: Crosby Lockwood & Son Limited.

- MCKEEVER, J.R. 1968. *The community builders handbook*. Urban Land Institute, Washington, D.C.
- Office of the Auditor General. 1989. Department of Public Works' Audit report on leasing of accommodation. Office of the Auditor General, Pretoria.
- PANERO, J. & ZELNIK, M. 1979. Human dimensions & interior space. London: The Architectural Press Limited.
- POSNER, W.H. 1990. The Leasing process: A guide for the commercial tenant. North York: Captus Press.
- RODE, E.G. 1996. Rode's outgoings for office buildings. Rode and Associates, Bellville.
- SAPHIER, M. 1968. Office planning and design. New York: McGraw-Hill Book Company .
- SAPOA (South African Property Owners Association). 1992. The SAPOA method of measuring floor areas in commercial and industrial buildings. SAPOA, Johannesburg.
- SEELEY, I.H. 1983. Building economics. London: Macmillan.
- SPEDDING, A. & HOLMES, R. 1994. Facilities management, CIOB Handbook of Facilities Management edited by Alan Spedding. Longman Scientific and Technical, Essex.
- State Tender Board. 1993. User manual: directives to departments in respect of procurement. (ST37). Government Printers, Pretoria.
- STONE, P.A. 1980. *Building-design evaluation: Cost-in-use.* London: E. & F.N. Spon.
- TIMM, R. 1987. Look before you lease. *Financial Mail*, June, p. 68.

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TOWSEND, P.R.F. 1983. The effect of shape and other factors on the cost of office buildings. Unpublished Ph.D. Thesis, University of Cambridge, Cambridge.

WALKER, R.D. (Undated) Leasing and management of the complete project. Unpublished notes.

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