

EFFICIENT AND HEALTHY ENVIRONMENTS IN PUBLIC BUILDINGS: A STRATEGIC QUESTION IN THE FM ORGANIZATION?

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ABSTRACT

Studies show that more than 40% of the public buildings in Norway have severe problems with their condition due to deficient maintenance. Most of these studies also report problems with the indoor climate/environment. Furthermore approximately 40% of the buildings are considered to have a low degree of suitability that does not support the efficiency and quality of the core activity/occupants in an optimal manner. The situation is alarming considering the long-term effects on the occupants and the occupying business, with regard to health, efficiency and economy. The reality today is in many cases a Facility Management (FM) regime which is focusing its effort and financial resources on “fire-fighting”, instead of planning and working on a more sustainable long-term perspective. There is a demand for knowledge and better methods to communicate and address these challenges.

Based on studies and cases performed during recent years, this paper will present and discuss findings and central challenges for the public buildings and for FM. Also some temporary results from a national Research and Development project (“FM as a strategic tool for achieving efficient health services”) supported by the Research Council of Norway will be presented. The objective of this paper is to shed light on the demand for knowledge and the need for development of competence and methods in order to strengthen the asset management and strategic planning, including looking at the role of FM at the strategic level. The purpose is also to establish a foundation for further studies.

KEYWORDS: asset management, strategic planning, facilities management, suitability, efficient and healthy environments

INTRODUCTION

Poor technical condition, inferior interior environment and unsuitable buildings are symptoms of inappropriate and uneconomical FM, which can lead to considerable negative consequences for users of the buildings. Examples of the results include reduced productivity and poor quality of public services. In Norway the situation for many public buildings is alarming, and the cause comprises both political and organizational structures and conditions, lack of competence on several levels and insufficient systems, methods etc. It also indicates that the FM philosophy lacks status as an indirect cause as well, since FM is not a core activity for neither politicians nor the administration in the public sector. This affects the attitude and culture in the organizations and makes it harder for the facility manager to secure funding for FM.

The intention of this paper is to look at how the public sector, and especially the FM, can be strengthened to meet these challenges. What does this mean for asset management (AM) and the strategic planning within FM, and for the role of FM in the public sector in general and the hospital sector in particular? The purpose is to shed light on the demand for knowledge and development of competence in order to strengthen the FM, and establish a foundation for further studies. The paper starts with a presentation of the status and challenges for parts of the public buildings and public FM in Norway. A theoretical framework related to the central challenges that the paper explores further is presented. Two case studies and results from interviews with representatives from the national, regional and local levels in the specialized health care sector are presented. Finally conclusions and recommendations for further work are given.

STATUS FOR THE PUBLIC BUILDING PORTFOLIO AND FM IN NORWAY

The data referred to here are based on several assessments and studies mainly performed during the last 5-6 years. The data are partly from available reports and publications, and partly from projects and studies the authors have been or are involved in at the time of writing. The different methods used for mapping/data collection and analyses are not presented or discussed here. However, the methodology and level of detailing used in the different projects varies somewhat, and the results must be considered as an approximate indication of the situation.

Condition and suitability

A summary of results from different studies on condition and suitability is presented in Table 1 showing that approximately 40% of all buildings examined are found to have a too low degree of suitability in order to support the efficiency and quality of the core activity/occupants in an optimal manner (Larsen, 2007).

Rebuilding and adaptation of buildings is also often necessary in addition to a technical upgrading in order to meet the need of the core business activities. Studies show that one of the major challenges in hospitals is to adapt the buildings and the technical infrastructure to new demands and needs (Valen & Larssen, 2006). It is well known that the physical adaptability of the buildings varies and a large amount of the existing buildings will be difficult and costly to adapt.

Table 1 Approximate amount of examined buildings within different public sectors with condition below an acceptable level (Source: Larsen, 2007)

Category	Schools	Health	Adm. and Culture	Sports
Condition	55%	45%		
Suitability	40%	45%	35%	30%

Vision, strategies and objectives

The formulation of visions, strategies and objectives for FM within the public sector is often insufficient, and in many cases absent. A survey performed within the specialized health care sector (Kampesæter, 2007), shows that 23% of the health trusts answer yes when asked if

they have a strategy for the building portfolio and the FM services in general, 58% answer that they partly have such a strategy, and 18% answer that they do not have a strategy. 57% of those who have a strategy say it is developed in accordance with the strategy for the core activity, and only 35% of those who have/partly have a strategy consider the strategy to be useful in the daily work. Status reports regarding the condition, operational economy or key indicators of the building portfolio from the FM are rarely asked for by the management or the political level.

Organizing of property and asset management; FM regime

During the last 5-10 years there has been an extensive centralization of the FM activities within most of the public sector. The intention has been to professionalize and make the FM more efficient. In the specialized health care sector (here: mainly hospitals) a hospital reform in 2002 in many ways has led to a decentralization of FM. From being owned by 19 counties, the sector is now organized in 27 hospital trusts, where each of these trusts is the formal owner of the properties and buildings. The trusts are owned by 5 Regional Authorities, which again are owned by the state.

THEORETICAL FRAMEWORK

The combination of the suitability and adaptability of a building is important for the choice of strategy for further development of the building(s) as shown in Figure 1 (Larsen and Bjørberg, 2004).

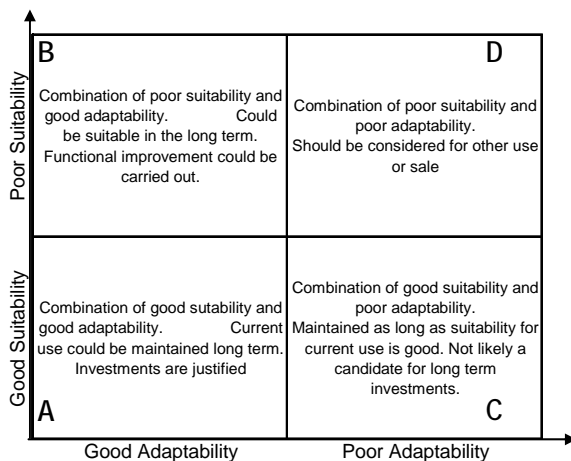


Figure 1. The suitability and adaptability matrix (Larsen and Bjørberg, 2004)

If there is both a considerable need for maintenance and as well poor suitability for the user, the physical adaptability of the building(s) can be decisive for what strategy one should choose; whether to upgrade/adapt or relocate etc. This emphasizes the demand for a coordinated development of the user organization and the building(s) in a long-term perspective.

CASE STUDIES

Two case studies are presented, where the role of the FM has been changed on the strategic level leading to a better cooperation with the owner and users and resulted in more funding to maintenance and other investments.

University Hospital of North Norway Trust (UNN)

This case description is based on a presentation by and interview with the head of the Property and FM department. He started at UNN in January 2007, and has since then introduced several changes and improvements. In the following some of these are presented as good examples for steps towards a more professional FM on the local level (within a single trust).

Before 2007 responsibility for different FM tasks were spread between many different organizational units, with varying local FM competence and capacity. Hence, reorganizing became an important tool for a more professional and rational FM. During 2007 FM was reassembled in a unit with 3 departments, and in 2008 it will be one of 12 departments in direct line reporting to the CEO. The FM unit will consist of 620 employees. The head of the FM unit is now part of the trust's management team and participates in board meetings and other arenas where the board and the hospital management meet. This is pointed to as a key for success, both the informal and formal position for influence.

In order to reach the goal of space efficiency, a booking system for meeting rooms was introduced. The intention was to create a history of success before one starts to look at efficiency of office facilities. Internal rent is also considered, and might be implemented unless other methods can lead to satisfying effects on space efficiency

The technical condition of the buildings is documented estimating a maintenance backlog of more than NOK 1 billion (EUR ~127 million), where approximately NOK 300 million (EUR ~38 million) has developed over the last 5 years. This documents an accelerating decline. However, this information is now available for the management and the Board as the FM unit has presented the condition status, risk analysis and impact assessments of the building stock. Hopefully this will affect the Trust's priorities and strategies in the near future. Systematic collection of data such as area, condition, FM costs, key indicators and systems to process the information is under development. Some operative functions will also be considered outsourced.

Västfastigheter

The case description is based on a presentation during a meeting with a special adviser for the management of Västfastigheter (VF) in Sweden. This is part of Västra Götaland, a politically governed region, and VF provides premises for the region's activities, such as hospitals, health care institutions, and schools. This case is chosen because it is a good example of a proactive FM. In the context of this paper their approach to strategic planning is briefly presented as they proactively plan for their clients' ever-changing activities

A building plan was prepared for each hospital, illustrating the capacity, possibilities and limitations. In close cooperation with the hospital an activity plan was also developed, which described possible scenarios and prognosis for the development of the core business, and hence the future demands for premises. Based on these documents a plan for the supply of premises was compiled. It included necessary measures to satisfy the activity plan, including

costs. The plans were subject to regular updating. This approach makes VF able to provide facilities and plan the use of the buildings with an efficient operation economy in the long run in order to keep up with the development and changes in the core business activities.

RESULTS FROM WORKSHOP AND INTERVIEWS

The results from a workshop with 10 FM managers (from local Health Trusts and Regional Health Authority's) and a series of 9 interviews with people representing four local Health Trusts, one Regional Health Authority and the Ministry of Health and Care Services is presented. The purpose of the workshop was to point out some central challenges for the FM in the health care sector. The interviews confirm results from earlier studies (Kampesæter, 2007) and from the workshop, and gives more in depth understanding of the conditions under which FM operates and the causal relationships that has lead to today's situation. The results are systematized and related to a set of criteria for good asset management and good FM as suggested in NOU 2004:22 (2004) and the main results are shown in Table 2. The task is to identify the gap in performance between today's practice and a more optimal FM, and hence identify central areas for improvement.

Table 2 A brief summary of the status and some main challenges for asset management and FM within the specialized health care sector in Norway.

Criteria for good asset management and good FM	Status in the Specialised Health Care Sector
1 Visions, strategies and objectives is defined for the asset management and FM	Insufficient, but good examples on regional and local levels exist
2 Rational systems for planning and control is implemented	Insufficient most places, need for more standardisation on regional and national level
3 Satisfy user needs	High focus among FM units on local and regional level, but insufficient methodology and evaluation.
4 Space efficiency	Insufficient, users not responsible for costs (internal rent will be implemented in near future several places however), relatively high amount of unsuitable premises, hard to measure, methodology missing.
5 Maintaining asset value	No, insufficient, hard to get funding, has not had much focus until lately. Status reports rarely asked for.
6 cost efficient FM	Insufficient, data and KPI's rarely available, with some good exceptions. Need for systems and methodology. Maintenance situation is very costly in the long term.
7 Strategic development of the properties	Insufficient, master plans some places, need for better methods and processes on regional and local levels.
8 Appropriate organizing of the FM-organisation	Great variations, distribution of responsibility vague some places, roles not clearly defined many places, partly mismatch between responsibility and formal authority. Processes on redevelopment of organization is ongoing several places.
9 Adequate economic resources adapted to the longterm perspective of the property portfolio	No, short term priorities and lack of resources.

The table shows that there is a call for improvements in all areas. However, it is important to note that there are several excellent examples of good practice within many of these areas today, but this picture is an indication of the overall situation. Most FM units will recognize the description in several of these areas. There is clearly increasing focus on FM in the sector, and much successful improvement work is being started.

DISCUSSION

The public sector faces considerable challenges, with a combination of extensive demands for changes in functionality and use, a building portfolio that is partly out of date, i.e. that they does not match future demands and with enormous maintenance backlogs. The interviews

shows that for most trusts the burden of debt is so heavy that the long term economic viability represents a challenge. Access to investment funding is and will probably stay limited. As a result, financially attractive projects are not implemented or must wait at the end of a long list of prioritized pending projects. If no means are found to clear the backlog of maintenance the result will be an even greater tightening of the financial framework for activities.

Hence, rationalizing of funding in order to secure optimal cost benefit is crucial. Furthermore, optimizing and efficient use of existing space is necessary, not only in terms of square metres, but in terms of suitable, comfortable and health promoting design solutions.

The central question this paper explores is: How can FM be strengthened to meet these challenges? The results presented here points towards several actions that are required.

First and foremost the ownership needs to be strengthened. The maintenance backlog is a clear symptom that the ownership has been ineffective for decades, and there are many indications that the decline continues also today.

In general the results confirm that the distribution of responsibility and tasks between the owner, the user and the FM units on all levels (strategic, tactical and operational) is diffuse in several trusts, and hence the understanding of the different roles within FM is not clear. Results show that the development of the FM role and competence on the strategic and tactical levels are required. Central topics are portfolio management, economic management, professional leadership and communication. Knowledge and understanding of the primary business and its drivers for change are emphasised by the respondents as important parts of this competence.

As the UNN case from Tromsø shows it is essential to get access to relevant communication arenas where decisions are made, such as management and board meetings. The right competence and skills are of decisive importance. One has to be tough and professionally confident in order to fight for “unpopular” cases. Argumentation by using the executives own “currency”, i.e. consequences for patient treatment, work environment and economy, is essential. Furthermore organizational placing and ability to create and communicate results has been a prerequisite for access to the right arenas for communication and decision-making in this case. In an expanded definition taking care of facilities is also a part of the health services. Increased consciousness and knowledge of asset management and FM among executives and board members is also a result of the head of FM’s initiative to inform them.

The Vastfastigheter case illustrates how the FM can proactively take the initiative to coordinate the future needs for change in the health services with the strategic planning of the building portfolio. This leads to a much better and consistent planning of resources in a long-term perspective.

According to the respondents, one of the challenges for the FM units is to recruit and keep qualified staff. The smallest units are also too small to have complete FM competence. This becomes an argument for more coordinated training and competence building on the regional or national levels, and for networking between trusts and regions. The internal organization of the FM units and services varies, and most respondents express a desire for more equal structures between different FM units and trusts. Considering the demand for a strengthened and proactive portfolio management, the challenging competence situation, a need to strengthen the ownership and to increase the economic “space for action” combined with limited access to funding, it will be necessary to consider the organizing of AM and FM

within the health sector, on all levels, including the formal ownership. Within some of the Regional Authorities and also in single trusts there are processes going on where different models for organization are considered.

Also development of more standardized systems, methods and tools on regional or national levels is desired by respondents. A critical selection of which buildings it will be worthwhile to upgrade and develop, and which ones to replace by new facilities is required. From the FM perspective a main challenge will be to provide the necessary information about the properties, their suitability and cost efficiency today, and their possible potential for future use with related cost consequences, and to present this in a way that is easily understood by decision makers.

During the last few years a methodology that attempts to provide this information has been developed, and has shown valuable as a basis for strategic analysis on a portfolio level (Larssen and Bjørberg, 2004). However there is still a need to develop the methodology further, especially regarding to suitability, ref. Figure 1. Key issues are: what characterizes suitability for different hospital functions, and for the hospital as a whole? How can this be described and evaluated for use on a strategic level and in an effective manner in terms of resources? Furthermore there is a demand for simulation models that combine activity (i.e. care pathways and number of patients) and the consequences of requirements for premises (space, technical requirements etc.). Such methodology is under development as part of a Norwegian Research and Development project called "FM as a strategic tool for achieving efficient health services". Hopefully this will be a valuable tool in strategic planning.

SUMMARY AND CONCLUSION

The paper has described the status and challenges for the public asset management and FM in Norway, with special focus on the specialized health sector (mainly hospitals). The situation is alarming and the asset management and FM performance in today's regime is far from optimal. That being said, there are also many examples of good practice in several areas, but the overall situation is challenging and improvements are required. We conclude with several actions, which comprise all hierarchical levels that are necessary in order to strengthen asset and facilities management.

1) First and foremost there is a need for a national strategy for how the enormous challenges related to the upgrading, development and renewal of the building stock in accordance with the future development of health services is to be managed in hospitals. A central part of this strategy must include a strengthening of the ownership. The Norwegian Government has stated in their political platform, the Soria Moria Declaration, that "hospitals will be given adequate economic conditions to secure the necessary renewal of buildings and equipment and counteract the development of an increasing backlog in maintenance" (The Norwegian Government, 2005). A follow up of this declaration is called for.

2) Development of competence and skills. This is especially competence in strategic planning and portfolio management. The role of FM as a proactive and strategic function must be further developed. Knowledge and understanding of the primary business and its drivers for change is an important part of this competence. FM also needs to improve the communicative skills. Increased consciousness and knowledge of asset management and FM among executives and board members is also necessary.

3) Organizing AM and FM and formal ownership of the properties within the health sector needs to be reconsidered

4) Framework conditions. With today's formal economic conditions and regime for investments the probability is high that trusts will steer towards an even greater tightening of the financial framework for activities. Action to avoid an escalating maintenance backlog is demanded, and must be considered in combination with the overall need for development and renewal of the building stock on regional and national levels.

5) Tools and methods. There is a necessity to redistribute functions and long-term transformation of the building stock in order to provide facilities according to the users need. This requires better methods and tools for planning and control. Many of these should be developed on a national and/or regional level and be made available to all.

In 2008, for the first time the Ministry of Health and Care Services has asked for reports on the maintenance situation in the hospital trusts. Hopefully this is a signal of increased consciousness that will contribute to an improvement of the situation. Further studies will focus on developing better models that examine and evaluate the suitability of buildings as well as models that examine activity and functions in relation to demands for premises.

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