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Centralizing Public FM organizations: Danish experiences with success criteria, results and realisation processes

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ABSTRACT

Purpose: The purpose of this study is to provide the first complete overview of how FM is organised in municipalities in Denmark and to share the lessons learned from centralizing Public FM organizations.

Background: The paper builds on (Jensen and Due 2008), who present models for organizing municipalities' FM organizations. The theoretical concept of "Strategic FM organizations" described in (Nielsen et al 2012) is used to explain the strategic differences among the models.

Approach (Theory/Methodology): The paper presents an empirical investigation (conducted in 2014 and 2015) of the organization of Danish municipalities' FM organizations. The research consists of two steps: first, qualitative case studies of 6 municipalities and their processes of centralizing their internal FM organizations; and second, an online survey with the participation of 65 of the 98 municipalities.

Results: The empirical study shows that 29% of the respondents have a centre with ownership and operation of the buildings; 45% have a central unit for building operation and maintenance, but without building ownership; and 26% have a decentralized organization. The main success criterion is a strong economy. The most frequent results are: better overview of properties and FM tasks and better use of the maintenance budget.

Practical Implications: The paper is particularly relevant for municipalities that are in the process of reconsidering their future organizational structures. A seven-step process is suggested to ease the establishment of a central FM unit.

Keywords

Municipal FM, strategic organization, strategic FM, public real estate, Danish municipalities

1 INTRODUCTION

The organisation of public FM is currently an under-studied niche within FM. It is understudied in relation to its importance to citizens because public facilities include day care institutions, schools, social housing, workplaces, prisons and hospitals, just to cite a few examples. This topic

is also understudied because of its importance to the economy on institutional, municipal and national scales and because the public sector is going through dramatic changes, which is a “game changer” within FM. To understand the goal of leadership in FM in a public context, it is desirable to integrate facility planning (demand, prognoses, and scenarios) and decisions about buying, renting or building with the building client’s function and operation (Jensen 2008).

The establishment of central FM organizations in Danish municipalities has gained momentum in recent years. In 2014–15, in order to learn from past experience, the Centre for Facilities Management (CFM) at DTU and the workers association FOA (Fag Og Arbejde) jointly conducted a pilot project on the formation of municipal FM centres (Preisler Hansen and Nielsen 2015). FOA’s motivation is to act proactively to influence the changes that their members (technical service personnel) experience. CFM’s motivation is to improve the knowledge base for municipal property management, also called municipal facilities management (FM).

The 98 Danish municipalities are different in size but face the same challenges with respect to owning, building, operating, maintaining, developing and managing facilities like schools, day care centres, administration buildings, and sports halls. This study does not focus on other Nordic countries, but municipalities in other Nordic countries and even beyond might find the study relevant, as they too are facing similar challenges in driving the professionalization of FM within a municipality or a region.

Nationally, public FM has been a hot topic in recent years because this area of policy is seen to have great potential for increasing efficiency and reducing costs (KORA 2015). Furthermore, the building stock has a backlog of maintenance requirements and invites innovation as a new niche for smart and sustainable products and services (Foreningen af Rådgivende Ingeniører 2012).

The purpose of the project is to share the experiences of the centralizing FM organisations and provide timely and relevant input that may assist municipal efforts in strengthening the organization of FM in municipalities. This study sets out to investigate:

1. How is FM currently organized in Danish Municipalities?
2. What lessons can be learnt from municipalities that have centralised their FM organisation?

The study is important for a number of reasons. First, because it examines municipalities and their FM organisation, which is an important basis for understanding how municipal FM practices can contribute to value creation through sustainability, the happiness and well being of citizens, and economic efficiency and effectiveness. Second, there is very limited academic literature on this topic and a major need to improve the image of public organisations (Luomaaho 2008).

The paper is structured as follows: a short summary of the state of the art, a description of the methodology, the results, conclusion and practical implications.




2 STATE OF THE ART

Public FM is seen as a niche within the FM literature because so few authors have specifically addressed this topic. This is not necessarily a problem, as facilities managers face many of the

same issues and challenges as facilities managers in private organisations. However, public organisations are different, and there are different rules and expectations regarding their code of conduct, e.g., they are expected to make deliberate contributions to societal development. (Alexander and Brown 2006) suggest that Public FM should strive for different strategic value sets – compared to those commonly set by private organisations – to ensure that a facility also contributes to the local community in which it is located. (Galamba 2012) focuses on the special role of embracing sustainability visions in the daily work of public FM organisations, which calls for new capabilities. Other authors have studied particular types of public buildings or ways of complying with specific policy agendas, e.g., energy efficiency and digitalisation. Still, the literature that focuses specifically on public FM is limited but growing.

The organisation of public FM organisations in Denmark is the topic of (Jensen and Due 2008). They identified 4 different constellations of FM tasks: owning, planning, operating and maintaining facilities, all of which were in use in Denmark. This study will use 3 of these models, which are explained in table 1. The 4th and most decentralised model of institutional ownership and operation is not relevant for this study of centralised organisations. The development of larger public FM organisations is seen as an important step towards ensuring efficient and effective Facilities Management and better quality in the public sector by (Danske Regioner et al 2008). Larger economic volumes – and thereby an increase in professionalization – are seen as a possible result of assembling tasks and of specialisation.

Table 1: 3 models for municipal FM organisations

Model 1	An independent FM centre With the full authority and strategic leadership to manage the municipal facilities.	
Model 2	An administrative FM centre A FM centre that manages (builds, operates) the municipal facilities on behalf of the owners, which are various administrative departments and institutions.	
Model 3	A decentralised FM organisation Where the ownership and the operation are assigned to the various administrative departments such as “Children and Youth”, “Culture” and “Town hall administration.”	

In (Nielsen et al 2012) the concept of “Strategic FM organisation” (SFMO) is developed to describe the organisational context of strategic FM. By focusing on the relations among owner, administrator, operator and end-users it becomes clear that different constellations also create different conditions for holistic thinking, e.g., regarding sustainability strategies. The three models represent three different concepts for public SFMO. Model 1 represents the integrated strategic FM organisation. Model 2 separates construction and operation; this is a way to structure a supply chain process that enforces the need for dialogue, coordination and

partnerships between the various functions. Model 3 is similar to Model 1, but the difference is that this comprises smaller units with close relations among the owner, administrator and operator, such that the public FM organisation consists of several parallel SFMO organisations.

3 APPROACH

The following section presents the methodology and the theoretical framework used in this study. The methodology consists of two steps. Step one is a qualitative case study of six FM centres, with the goal of investigating their processes of establishing centralised FM units. Step two is a quantitative and qualitative survey sent to all Danish municipalities to verify and quantify the findings from the case study.

A number of municipalities were contacted and invited to participate in the qualitative study. The aim was to identify municipalities of different sizes, including the largest, medium, and smallest Danish municipalities (measured in population) and from different parts of Denmark. It was a prerequisite that (1) the official opening of the centre had to be at least one year before the interview was to take place; (2) the municipalities should reflect variation in population and geography to represent the variety of Danish municipalities; (3) the technical service personnel were associated with FOA and not competing workers' associations; and (4) they were willing to find the time to participate in the interviews and share additional information such as policy documents, reports, and press releases.

Table 2: Facts about the six case municipalities extracted from Statistics Denmark

Municipality and facts	Frederiks-havn	Gentofte	Ishøj	Silkeborg	Svendborg	Ringsted
Inhabitants	60.538	74.644	21.761	89.950	57.978	33.516
Geographical area in Km ²	650	25	25	850	415	295
Total building space in m ²	322.300	399.200	130.300	488.200	263.200	180.800
Number of buildings	722	878	285	1.299	777	393
Space pr. inhabitant in m ² /person	5,3	5,3	6,0	5,4	4,5	5,4

The six municipalities in table 2 have kindly contributed to the case study by sharing their experiences with setting up a central property centre. In each municipality, semi-open qualitative interviews were conducted with key informants: the centre director, one or more employees and a leader from a user institution. Based on these three perspectives, a storyline was constructed for each case. The questions asked were:

1. What were your goals and your success criteria?
2. What were the barriers you encountered and how did you tackle them?
3. What have you learned and what should other municipalities think about if they are considering centralizing their FM organisation?

The survey was conducted after the completion of the case studies and used the qualitative results to generate questions. Survey Monkey, a web based survey tool, was used and sent by e-

mail to all 98 municipalities in Denmark through the municipality's main e-mail address. A total of 80 replies were returned, but a data cleaning process was needed to eliminate non-valid replies. The IP numbers revealed that some respondents had made several attempts before they managed to complete the questionnaire. After this data cleaning it was clear that the survey had 65 unique answers, equal to 66% of all Danish Municipalities. This is seen as a very satisfying response rate, which makes the survey reliable.

The theoretical framework is simple. The point of departure was to explore existing FM centres with more than one year of experience, so as to ensure some experience and initial results. We chose to search for 3 models of FM organisations based on (Jensen and Due 2008) and (Danske Regioner et al 2008) and respondents were asked which of the three models best characterised their FM organisation. The remaining questions in the survey aimed to determine to what extent the respondents shared the same success criteria, experienced the same results and had experienced the same challenges. Thus there was a clear link between step one and two in the methodology.

4 RESULTS

This section presents the story line of each of the six cases of establishing an FM centre (Model 1 and Model 2) and the results of the survey. The cases describe Danish experiences with success criteria, results and implementation processes.

4.1 Six cases of establishing a FM centre

Below is a short description of each of the six cases: their purpose in establishing a new FM unit, their experiences and their results so far.

Frederikshavn: In 2012 Frederikshavn Municipality opened a new FM centre. The goal was to reap significant economic and qualitative benefits through a coordinated and centralized approach to property issues, including freeing the economy by creating a better view of the real estate portfolio and capacity utilization. These were incorporated into an annual savings of 1,350,000 Euro. The success criteria for the new centre were streamlining work processes, harmonizing service levels and achieving savings. Until now, these success criteria have primarily been realized through economies of scale, improved purchasing and adjustment of both resources and salaries. The focus is now more on development and opportunities rather than on costs, including optimization of operations as well as better land use and disposal of property.

Gentofte: Gentofte Properties has existed since 1 January 2008 and is one of the oldest municipal FM centres in Denmark. The centre has long since passed the establishment phase and is now a "machine at full speed." However, this does not mean that adjustments and modifications are not still being made. The immediate objective of the centre's formation in 2008 was to strengthen the building maintenance team and to streamline operations. These objectives have already been met. Since the centre's formation in 2008, Gentofte has saved between 1.600.000-2.010.000 Euro on rationalisations and redundancies, and building maintenance in the municipality is now better and more consistent.

Ishøj: Ishøj Municipality started to restructure its FM organization in the summer of 2014. The restructuring meant, among other things, that technical services at the municipal day-care institutions were centralized under the FM centre. Similarly, the previous form of organization was replaced by more flexible working communities that were better at completing tasks across

policy areas, with a focus on tasks and customers. The aim of the restructuring was to strengthen the quality and level of service offered to the city's institutions and citizens. The restructuring has not been implemented with immediate financial savings in mind. The philosophy of the new organization is to think in terms of total solutions and to "focus on the customer."

Ringsted: In 2011, the technical service personnel in Ringsted Municipality were united in one central unit for building operation, and in 2014 this centralization was continued with the merger of the former Municipal Properties (building client organisation) and the former Road Park into one complete municipal property centre. The primary purpose of centralization was to achieve efficiencies, improvements and savings in operation and maintenance teams of municipal buildings. Before the FM centre was established, Ringsted Municipality had, for a long period of time, had a backlog of maintenance and found that the decentralized maintenance funds were not always used optimally and smoothly. The centralization should improve efficiency through better coordination and cooperation among related tasks.

Silkeborg: Silkeborg Properties opened in January 2012. This consolidated ownership of all municipal buildings and all municipal property management and building maintenance in a central FM centre. The main incentive behind the centralization was an overall municipal austerity in the field. The project was recognized as immediately saving approximately 400.000 Euro, and has had ongoing savings of 1 percent annually. The primary objective of the centre has therefore been a desire for efficiency and performance optimization.

Svendborg: In January 2014 Svendborg Municipality opened a new FM centre, the Centre for Real Estate and Technical Service. The employees of the administration had twice before tried to centralize FM centre but could not gain political support. However, in 2013 the political support was there, and the decision was made. The Centre's formation was very much focused on achieving efficiencies and savings on property operations through economies of scale, better prioritization, and use of municipal maintenance funds. A goal was to save approximately 400.000 Euro in 2014, with further savings of 2 percent in 2016 and 5 percent in 2018 compared to the 2014 budget. This objective has so far been achieved. Another objective is efficiency through better land-use planning.

These six cases show relatively different formation process and results but also some overlap. The names of the FM centres show variety: both "FM centre" and "Property Centre" are in use. Table 2 summarizes, first, the motivation and the success criteria identified in the study; second, the results of the centre's formation; and third, the challenges that have been faced. The full project report (Preisler Hansen and Nielsen 2015) provides more detailed case descriptions in Danish.

Motivation and success criteria for the new property centres:

- Good economy
- No backlog in building maintenance
- Streamlining work processes
- Improved building operation
- Customer Focus
- Service to more (day care centres)
- Coordination of related disciplines (e.g., management of roads and parks)
- More robust organisations

Preliminary results from the centralization of property management:

- Savings are realized
- Better use of maintenance funds
- Compensation for services and maintenance levels of municipalities
- Better overview of the properties and functions
- Centralised servicing of day care centres
- Team Structure implemented
- More focus on training and development of skills

Challenges experienced before, during and after the establishment of a real estate centre:

- Political and managerial support in the municipalities is essential
- Centre formation takes time and is a costly process
- Scepticism and dissatisfaction among users has to be handled
- School leaders feel that they are losing influence
- Some headmasters report that cooperation with technical services has become more difficult
- Some headmasters experience deteriorating service levels
- Degradation of salaries, creating resistance among the technical service personnel
- Some people experience a loss of belonging and ownership
- Some employees feel pressured by disgruntled users
- Communication, involvement and dialogue are important

The case study of the six municipalities provided a new and qualitatively valuable description of the managerial process of establishing a new and centralised FM organisational unit. However, the case study did not indicate the extent to which this was common for all Danish Municipal FM organisations. The next section reports the results of the survey, which aim to validate and quantify the findings from the case study.

4.2 Survey of FM organisations in Danish Municipalities

4.2.1 Characteristics of the current FM organizations

Of the 65 municipalities that replied, 19 (29%) have an independent unit (Model 1), 29 (45%) have an administrative centre (Model 2) and 17 (26%) have a decentralised centre (Model 3). Some commented that there are exceptions, e.g., that the decentralised model matched their FM organisation the best, but at the same time they have centralised single building services. This indicates a rich variety in how Danish municipalities have organised their FM, and that there are various combinations of the archetypes Model 1, 2, and 3.

The investigation of the timespan since the opening of a FM centre (Model 1 or 2) shows, based on 48 replies, that 30% of the centres (at the time of investigation) were newly established, as they had existed for only 1 year or less. A total of 28% had between 2-4 years of experience and 42% of the centres had more than 5 years of experience. The merger of municipalities in 2007, as a result of the Municipal Structure Reform that reduced the number of municipalities from 273 to 98, can explain some of the centres that have 7-8 years of experience. In the survey we asked those with decentralised centres if they planned a reorganisation within the next year. The survey showed that 41% of the municipalities with a decentralised FM organisation are in the process of planning a reorganisation, and 59% are not planning a reorganisation.

4.2.2 Success criteria for the new FM centres

A total of 47 centres (only Model 1 and Model 2) replied to the questions about success criteria and the results are displayed in table 3. The centres generally share the same success criteria, citing the economy as the most dominant. Only 56% of the respondents replied that “coordination of related disciplines” is very important or important, which might indicate that the focus on FM as a mature multidisciplinary profession is overlooked in the Danish context. Some respondents used the opportunity to comment and add missing success criteria. These additional success criteria are:

- Improved standard per m² on the same budget
- Most value for money in the areas prioritized in the municipal strategy
- Properties should provide the best possible facilities
- Transparency of expenditures
- Holistic thinking over sub-optimization
- Low consumption and green energy

Table 3: Success criteria for public FM centres in prioritised order.

Order of priority	Success criteria	Very important or important	Neutral	Less important of not important	Do not know, not relevant, no answer
1	Good economy	96 %	0 %	0 %	4 %
2	Improved building operation	92 %	4 %	0 %	4 %
2	Customer Focus	92 %	4 %	0 %	4 %
2	Streamlining work processes	92 %	4 %	0 %	4 %
3	More robust organisations	82 %	10 %	0 %	8 %
4	Service to more (day care centres)	80 %	10 %	0 %	10 %
5	No backlog in building maintenance	74 %	16 %	6 %	4 %
6	Coordination of related disciplines	56 %	24 %	8 %	10 %

Overall, this overview of success criteria illustrates the complexity of the targets that the FM organisations have to achieve. This leads to the next section, which reports the respondents’ self-evaluations about the effect of forming a FM centre.

4.2.3 Results of establishing an FM centre

A total of 47 respondents (19 independent units (Model 1) and 29 administrative centres (Model 2), with at least one year or more of experience, answered questions about what they have received by establishing a FM centre. Table 4 show the answers. As high as 90% answered that

the centre has lead to a better overview of properties and FM tasks, and more that 60% answered that it has also helped on all other success criteria. Realisation of cost reduction, however, had the lowest (62%) score. A few comments emphasized that when they answered that the centre had not lead to cost reductions, this should be understood as saying that the centre had not lead to additional cost savings. The FM budget was, in at least one case, reduced before the centre opened because of expected cost reductions. This indicates that municipalities might have had greater success in reducing costs than one can immediately see from table 4.

Table 4: The results of centralizing the FM organisation.

Order of priority	Results	Yes to a high degree or to some degree	No, only to a minor degree or not at all	Do not know/ not relevant
1	Better overview of properties and FM tasks	90 %	2 %	4 %
2	Better use of the maintenance budget	88 %	0 %	13 %
3	Centralised service of day care institutions	75 %	6 %	9 %
4	Focus on education and competence development	72 %	11 %	17 %
5	More equal services and maintenance within the municipality	70 %	11 %	19 %
6	Team structure implemented in the FM organisation	68 %	14 %	17 %
7	Cost reduction	62 %	21 %	17 %

It should be noticed that the percentage of answers “don’t know or not relevant” is higher than in the previous set of questions (table 3). The answers imply that this is due to uncertainties, as the establishment of the centre is still in process and it takes time to for the effects to show. In addition, the municipalities are also facing the general lack of explicit knowledge about the new centres’ performance, as described by (Jensen et al 2012).

4.2.4 Challenges experienced in the process of establishing a centre.

The case studies identified a number of challenges in the process of establishing a FM centre (Model 1+2). The surveys aimed to test to what extent the identified challenges were unique to the six cases or general for FM centres established in Denmark. A total of 47 centres answered this set of questions and the answers are shown in table 5.

At the top are the managerial challenges that most experience: “Establishing a centre takes time and is resource demanding” and “Headmasters, who previously had their own maintenance budgets, experience a loss of influence”. The least-reported challenge is reluctance due to reduced salaries and changed working conditions among the technical service personnel. This is a minor issue either because there have been no changes or because the personnel have accepted the changes out of fear of losing their jobs, a fear they reported in the interviews in the qualitative part of the investigation.

Table 5: Managerial challenges in the process of establishing an FM centre.

Order of priority	Managerial challenges	Yes to a high degree or some degree	No, only to a minor degree or not at all	Do not know or not relevant
1	Establishing a centre takes time and is resource demanding	81 %	6 %	13 %
2	Headmasters experience a loss of influence	66 %	15 %	19 %
3	Headmasters experience a reduced service level	53 %	19 %	28 %
3	Some employees feel pressure from unsatisfied users	53 %	34 %	13 %
4	Lack of communication, participation and dialogue	49 %	38 %	13 %
5	Mistrust and satisfaction among users	47 %	40 %	13 %
6	Headmasters experience that collaboration with technical service becomes more complicated	43 %	32 %	25 %
7	Lack of political or managerial support	40 %	51 %	9 %
8	Reduced salaries and changed working conditions causes reluctance among the technical service personnel	28 %	38 %	34 %

5 PRACTICAL IMPLICATIONS

The paper is particularly relevant for municipalities that are in the process of reconsidering their future organizational structure in Denmark. The study provides guidance for reflection on how to lead a reorganization process and a pre-understanding of what issues might arise in such a process. This will hopefully lead to less frustration among employees and the experience of a clear and relatively smooth process, as the strategic leaders of the process will have a more nuanced pre-understanding of advantages and possible pitfalls.

On the basis of the municipalities' experiences and recommendations, the following seven steps are outlined to ease the establishment of an FM centre:

1. Start with what you can agree on.
2. Make a strategy for employee information and involvement.
3. In the initial phase, make a plan for the future operation of the schools.
4. Bring in external expertise if you lack time or skills.
5. Ensure an easy contact point for the users.
6. Determine a service level for all properties.
7. Property Centre Formation is an ongoing development and probably never ends.

The study is focused on Danish Municipalities, but concerns about how to empower FM organisations in smaller municipalities are similar in Norway (Boge and Nielsen 2015) and other Nordic countries. The Nordic culture of embracing employee perspectives on the tactical and operational levels makes this study more relevant for public FM leaders who wish to take this

approach and less relevant for those conducting their leadership in a more hierarchical power structure, where the dialogue with employees is different.

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