

Managerial Perception of Service Innovation In Facility Management Organizations

Scupola, Ada

Published in:
Journal of Facilities Management

DOI:
[10.1108/14725961211246009](https://doi.org/10.1108/14725961211246009)

Publication date:
2012

Document Version
Early version, also known as pre-print

Citation for published version (APA):
Scupola, A. (2012). Managerial Perception of Service Innovation In Facility Management Organizations. *Journal of Facilities Management*, 10(3), 198-211. <https://doi.org/10.1108/14725961211246009>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

Take down policy

If you believe that this document breaches copyright please contact rucforsk@kb.dk providing details, and we will remove access to the work immediately and investigate your claim.

Managerial Perception of Service Innovation in Facility Management Organizations

Ada Scupola, Roskilde University,

Author corresponding address: ada@ruc.dk

This article has been published in Journal of Facilities Management, Vol. 10(3)

This article can be cited as follows:

Ada Scupola, (2012) "Managerial perception of service innovation in facility management organizations", Journal of Facilities Management, Vol. 10 Iss: 3, pp.198 – 211.

Managerial Perception of Service Innovation in Facility Management Organizations

Abstract

Purpose. The purpose of this paper is to investigate innovation in the facilities management sector by conducting an empirical study.

Design/methodology/approach –This study uses a qualitative research approach to investigate the research question. Data collection includes qualitative semi-structured interviews with key facility management managers and directors, secondary material such as company brochures and reports and participation to workshops and conferences on facility management.

Findings – The main results are that big service providers perceive innovation as a strategic activity and see themselves as innovative companies. FM service customers with their own FM department present mixed results. Some perceive innovation as a strategic priority and have clear innovation strategies. Others perceive themselves as not being innovative, even though they might be. The organizations belonging to the category “ICT Supplier/consultants” perceive themselves as innovative organizations and their innovations are both driven by the user needs and by the desire to improve their competitiveness. The types of perceived FM innovations found in the study can be mainly categorized as service, contract, process and business model innovations. Finally, the study shows that ICT is perceived to be a driver of FM innovations and that FM organizations use both closed and open innovation strategies.

Practical Implications – These results can be used by FM managers, innovation researchers and FM researchers alike. For FM managers the results provide some useful information about how innovation is addressed in FM provider and customer companies. FM researchers can get a picture of what is going on in the FM innovation landscape in Denmark. Finally, service researchers can get some insights about service innovation in a specific and under-researched service field: facility management services.

Originality/value- This paper contributes to the understanding of innovation and innovation types in facility management companies.

Research Paper

Keywords

Facilities Management, Services, Innovation

1. INTRODUCTION

In the last three decades, Facilities Management (FM) has established itself as a key service sector, with a diverse and highly competitive market of FM contractors, in-house FM teams, FM suppliers, FM consultants, and professional FM institutions (Nutt, 2000). Facilities management (FM) can be defined as the integration and alignment of the non-core services, including those relating to premises, required to operate and maintain a business to fully support the core objectives of the organization (Pitt & Tucker, 2008).

Innovation processes in service firms have been often characterised as being unsystematic, not science-based (Sundbo and Gallouj, 2000) and often resulting into ad-hoc innovations that are not anchored into a strategic plan (Gallouj and Weinstein, 1997). Recent literature, however, has showed that innovation activities in service firms are starting being strategically planned and organized (Sundbo, 1997). Furthermore, the process of innovation, both in manufacturing and service firms, is shifting from being closed, mainly internal to the firm, to being open and involving a range of external players distributed up and down the supply chain.(Alam, 2006; Alam and Perry, 2002; 2011; Chesbrough, 2003; 2011).

The purpose of this article is to link innovation and facility management by empirically investigating innovation and innovation activities in the facility management service sector. The research question addressed is: “How do managers perceive innovation and innovation activities in FM organizations and how can FM innovations be characterized?” The research question is answered by conducting an empirical qualitative study in the facility management sector in Denmark. The motivation for this study has to be found in the fact that only few studies (Cardellino and Finch, 2006; Pitt et al., 2006; Pitt and Tucker, 2008) have investigated innovation in the facilities management sector. However, with the exception from the study by Cardellino and Finch (2006), which was empirically based in UK, such studies are mainly theoretical such as the study conducted by Pitt et al. (2006) and Pitt and Tucker (2008). This study is therefore important because it provides empirically generated knowledge about innovation in FM firms that can be useful to innovation researchers, especially in the field of service innovation, facilities management researchers and facility managers alike.

The article is structured as follows. This introduction presents the background and the research question of the study. The second section provides a literature review of the main concepts and definitions used in the paper as well as a brief review of the literature concerning innovation in facilities management. The third section presents an overview of the Danish FM market, while the fourth focuses on the research methodology. The following section presents the results and a discussion of the results. Finally, the last section provides some concluding remarks.

2. LITERATURE REVIEW

2.1. Facilities Management (FM)

There are many definitions of facilities management and a whole range of approaches trying to make sense, conceptualize and understanding FM (e.g. Price, 2002, 2009; Chotipanich and Nutt, 2008; Then, 1999; Nutt, 2000)). These approaches vary from environmental determinism, where the physical environment causes user behaviour, to social constructivism, where the social context determines user behaviours (Vischer, 2008 in Price et al., 2009).

One approach to facilities management frequently used and , could be argued, more close to environmental determinism, describes FM as an integrated approach to operating, maintaining, improving and adapting the buildings and infrastructure of an organization in order to create an environment that strongly supports the primary objectives of that organization (Pathirage et al., 2008, p. 5).Pathirage et al. (2008) argue that the FM literature (Amaratunga, 2001) identifies four generations of FM that focus on the changes to the management of facilities over the last few decades. In the first generation FM was considered as an overhead to the organization and was something that had to be managed for minimum cost rather than optimum value. In the second generation, FM took a process perspective and promoted the process focus between the organization's individual businesses and the FM organization by making FM activities within the

organization a continuous process (Amaratunga, 2001 in Pathirage et al., 2008, p. 8). In the third generation, FM becomes more concerned with resource management, concentrating on managing supply chain issues associated with the FM functions. Finally, the fourth generation focuses on the alignment between organizational structure, work processes and the enabling physical environment arguing that the organization's strategic intent must clearly reflect the facilities dimensions in its strategic business plans.

Price et al. (2009) in a critique of the FM literature close to the environmental determinism, take a more social constructionist approach to facility management understanding and argue that "strategic FM should engage not with elaborate structural functional models of building service supply but with the socially constructed realities of organizations and their results". . To support their argument that FM can be socially constructed, Price et al. (2009) provide several evidence based examples of FM creating different conversations. Price et al. (2009) for example show how the creation of excellent patient environments in English Hospitals is not a function of structure (whether or not there is an integrated FM Directorate), sourcing (in house or outsourced) or a particular business process, but a function of leadership exercised through context specific conversations. Price et al. (2009) critique to FM approaches has its roots into a more profound discussion of the facilities management's (FM) continuing struggle with its search for a strategic identity (Price, 2002). Similarly, Price (2002) argues that while some advocates the use of new terms in relation to FM such as infrastructure management or real estate asset management, and that core businesses should change the language in which they speak of FM, the real alternative is to use other types of discourse such as social constructivism to understand and explain the field of FM. Chotipanich and Nutt (2008), still in search of an answer to how facility management can be understood, address the question of how facility management support arrangements should be positioned and repositioned to meet the needs and expectations of an organization and its customers, as priorities shift and business circumstances change. By conducting case studies across a variety of organizational types and sectors they develop a generic decision framework that could be used by facility managers to adopt a more secure approach for collecting information, identifying key issues and encourage a rigorous and critical examination of alternative FM arrangements prior to implementation.

2.2 Relationship between FM, Services and Innovation

Coenen (2009) has tried to show how facility management can be seen as a service management discipline and how facility management services can be seen as a particular type of services. In addition, in a thorough literature review of added value of FM from different research perspectives, Jensen et al. (2012) establish a link between FM and relationship marketing and state that when considering the value of FM, FM has to be acknowledged as a relationship management discipline in order to be able to understand its value. Jensen et al. (2012) state that on a high level of abstraction, FM can be seen as the management of internal or external customer/client-supplier-relationships. FM perceived value can only exist and be produced within this specific network of relationships as it is typical of service offerings. Concerning service innovation, Francis and Bessant (2005) describe it in terms of the changes in the firm's service offering, the ways the firm creates and delivers those offerings (process innovation) as well as changes in two other areas where innovation is possible - market position and business models. Similarly, Avlonitis et al (2001) categorize service innovations as new-to-the-market, new-to-the-company, new delivery process, service modifications, service line extensions, and service repositioning types of service innovations. Marketing literature distinguishes between radical and

incremental innovations. Radical innovations initiate new directions in technology, while incremental innovations progress along established paths (Christensen, 1997). At firm level, Therrien et al. (2011) found that the following characteristics of innovative firms in service industry have been observed:

- innovative service firms consistently outperform non-innovators in terms of growth and productivity;
- service industry firms which spend more on innovation per employment are more likely to report a positive impact of innovation on total employment;
- innovation has a positive impact on sales and employment growth ;
- external linkages have a positive impact on service firm performance, regardless of the level of innovation considered, and service firms tend to be more outwardly focused;
- innovation within the service sector can require near continuous contact between the client and services firm;
- distinction between product and process innovations in services may be more difficult to make in services in comparison to manufacturing (Howells andTether,2004);

2.3 Facilities Management and Innovation

Few studies (Cardellino and Finch, 2006; Noor and Pitt, 2006; Goyal and Pitt, 2007; Pitt et al., 2006; Pitt & Tucker, 2008) have investigated innovation in the facilities management sector or have made a link between the innovation literature and the facility management literature. Cardellino and Finch (2006) examine the nature of “service innovation” in the facilities management (FM) context and describe case studies of 11 innovations in different FM organizations in the UK. These include both in-house client based innovations and third party innovations. Cardellino and Finch (2006) found that FM organizations in UK are highly active with service innovations, but that these are generally one time commitments. They also found that primary determinants for the success of an innovation in FM organizations were the awareness of the external market, the development process and the firm’s strategic and business fit. Noor and Pitt (2006) in a critical review of innovation in facilities management service highlight that the creation of strategic supply chain partnerships to gain long term benefits are an important aspect of FM innovation. This implies that new business models that include partnering are also types of FM innovations. Among the mutual benefits that partnering can offer to the service provider and the client are increased customer satisfaction, better understanding between partners as well as lower costs, better predictability of cost and time and shorter overall delivery periods. Noor and Pitt (2009) conclude that the role of innovation in FM services is not just to produce innovative solutions, but also to establish and develop a creative environment in which solutions can be conceived, developed and implemented. Goyal and Pitt (2007) in addition state that innovation achieved as partnering between organisations maximise the opportunity to think and act beyond an organisation boundaries, bringing together aspirations, skills and knowledge of all stakeholders involved who work to gain profits and competitive advantage. They conclude that innovation in facilities management should be a mindset and not a one-time event. Innovation management principles should be incorporated as a part of daily schedule for each employee at all levels, strategic, tactic and operational. In addition, Pitt et al. (2006) by

investigating different issues including innovation in relation to building maintenance also state that innovative solutions to maintenance issues are essential for continued efficiency and are brought about through the creation of an environment in which creativity is able to thrive. Finally, Pitt and Tucker (2008) through a theoretical analysis of performance measurement, benchmarking and innovation in facilities management conclude that benchmarking is a technique that can be used in measuring facilities service performance and a catalyst in generating innovation to the performance process.

3. AN OVERVIEW OF THE DANISH FACILITY MANAGEMENT MARKET

Reinartz and Lelong (2006) in a case study of ISS describe the facility services market, both globally and locally, is highly fragmented and composed of thousands of small service providers that compete in their local markets against a few global players such as ISS, Rentokil, Service Masters and Johnson Controls. According to Reinartz and Lelong (2006) smaller and local facility service providers have tried to cope with this competition in various ways. One common way is to provide integrated solutions bundling several facility services such as ICT services, cleaning and space management together. Another way has been to develop services customized to the specific industry sector served. Often customer companies can outsource several different services such as catering and landscaping and still have a single point of contact with their service provider for all the outsourced services. This contact point is more and more often supported by ICT systems.

In the specific case of the Danish market, a survey conducted by Rambøll Consulting (Jensen, 2009), found the total potential market for facilities management in Denmark to be € 7.9 billion in 2008, while the actual market to be € 4.9 billion in 2008. The facilities management services that are mostly outsourced in Denmark include space management, cleaning, health, safety, security and ICT services. Other outsourced services include reception, contact centres and business support services. The degree of outsourcing of facilities management services is 62 %. The facilities management providers and clients usually are characterized by being relatively big both in terms of numbers of employees and turnover. Part of this overrepresentation of larger providers might be explained by the fact that only enterprises with more than 50 employees were included in the Rambøll Consulting's survey.

The types of services that go under the umbrella name of facility management are still not clear and are the object of interest of many standard bodies (Jensen, 2009). However according to Jensen (2009), it is common in facility management practice and literature to divide them into two main categories: "Space and Infrastructure" and "People and Organisation". Table 1 below provides a detailed overview of the number and percentage of FM providers in each sector of facility services in Denmark as classified according to the two categories above.

Table 1. The distribution of Danish services from the providers' point of view (adapted from Jensen, 2009)

Facility Services	Number of Companies	%
Space & Infrastructure		
Space	60	58%
Outdoors	37	36%

Cleaning	29	28%
Workplace	23	22%
Industry sector specific	16	16%
Other S&I services	20	19%
People & Organization		
Health, safety and security	23	22%
Catering	18	17%
Reception, contact centre and meeting rooms	14	14%
ICT	24	23%
Logistics	16	16%
Business support - finance	14	14%
Business support - HRM	11	11%
Management support - organization specific	12	12%
Organization specific	6	6%
Other P&O services	8	8%

4. METHODOLOGY

The main body of empirical data for this study was collected through fifteen interviews with representatives from fourteen organizations in the FM field. Supplementary data sources included archival sources, company's web sites, attendance to practitioner conferences and workshops on FM related topics such as partnerships in FM, innovation in FM and IT in facilities management. The participant lists of the attended seminars and conferences, the web site of the Danish network for facilities management (www.dcfm.dk) as well as discussion with industry experts were used to identify relevant companies to interview. The author contacted the companies per e-mail explaining the research project and asking for an interview and for the right contact within the company to interview in relation to the research interest. In some companies it was necessary to follow up with a telephone call in order to clarify the research and identify the right person to interview. Only two companies among all those contacted refused to participate in the study due to company policy. The participant companies can be distinguished into three main groups: FM service providers, FM customers and FM consultants. This choice has been made as it was believed that such a mix would provide a more nuanced picture of innovation in the FM sector. The respondents were all high-level managers and directors and the main selection criteria were that they had to have a good knowledge of innovation and innovation activities in their company. FM consultants have been selected as they usually have a good insight about innovation activities both in the FM service providers and the customers. Table 2 below provides descriptive information about the participant companies. The names of the companies are kept undisclosed due to the companies' wish of keeping it confidential.

Table 2. Characteristics of the companies interviewed

Company Type	No.	Person Interviewed	Number of employees
Big FM provider	A1	Department Senior Manager	250 in Denmark 4000 In Scandinavia
IT System provider	A2	Department Manager	25
Big Consulting company in the building and FM market	A3	Head of the FM department	45 in the FM Department
Big FM provider	A4	Development Director	(company prefer to keep size undisclosed)
Big Pharm Company	A5	FM Department Director	90 people in the FM Department (company prefer to keep size undisclosed)
Consulting Institution	A6	Construction Consultant	Ca. 850
Big Public FM Organizations	A7	FM Manager	170
Big Public Organizations	A8	FM Manager	45,000 employees in total. 15 in the FM department, FM dept. only takes care of building and basic installations maintenance and new construction
Big State /private Organization delivering experience services	A9	FM Manager	Ca. 1100
IT System provider for FM	A10	Director of the Danish Subsidiary	6 in Denmark, Circa 12 in the Main office located abroad
Big Financial Service Firm	A11	FM Manager	FM is organized as an intern function with 160 employees
SME providing FM Service to mostly big corporations	A12	Manager also in charge IT	Ca. 145 managers Ca. 430 FM workers
Big company renting and maintaining buildings	A13	2 Business Development Managers	220
Consulting Institution	A14	Construction Consultant	(company prefer to keep size undisclosed)

All interviews lasted about 1.5-2 hours. Interview questions were semi-structured (Yin, 2003) attempting to understanding innovation activities within companies. The interviews were tape recorded and transcribed. Notes were also taken during the interviews. To increase the reliability, an interview protocol was used and a database was developed (Yin, 2003). This protocol was slightly adjusted depending on the type of company interviewed: FM providers, FM customers or FM consultants. The protocol questions were organized into two parts. The first captured the company background information, such as, the type of business, years in business, and facilities management activities. The second part focused specifically on innovation and innovation activities in the company. These questions were theoretically founded in the literature review above and aimed at eliciting managerial perception of innovation, innovation activities, and innovation types in the companies interviewed, thus linking the research question to the theoretical background. The second part of the interview started by asking the respondent to

provide his/her own understanding and definition of innovation and innovation activities in the company. This had the purpose of creating a common understanding of innovation between the respondent and the interviewer. In addition, during the whole interview it was attempted to elicit examples of innovations and innovation activities in the company to better illustrate and clarify the arguments. This research design is based on Miles and Huberman's (1994, p. 58) suggestion to create a provisional "start list" of codes prior to the field work to guide the analysis. This "start list" was based on the literature review and the research question and included, for example, codes such as service innovations, process innovations, innovation strategy, open innovation, closed innovation. However, new codes emerged progressively during the data collection, often uncovering new factors related to perceived innovation, innovation activities and types of innovation. Examples of "codes" that emerged during the interviews were contract innovations and business models innovations (partnerships). After the interview process was finished and the interviews were transcribed, the author conducted the final analysis of the data by going several times through the transcripts to identify instances or statements that could support existing codes or that were the basis for new ones. Such analysis was conducted at first across all the companies, but in a second moment such instances were grouped according to the different type of company: FM provider, FM customer and FM consultant. Therefore by following Miles and Huberman (1994), the data analysis process of this study can be described as comprising of the following processes: data reduction, data display and conclusion drawing/verification..

5. RESEARCH FINDINGS

The results are divided into three main parts, each one addressing a part of the research question.

The first part of the analysis presents the results in relation to perceived innovation activities in the company (e.g. ad hoc-innovation, strategically planned, etc.). These results are organized according to the three different categories of companies interviewed: FM Service Providers, FM Service Customers, ICT suppliers/consultants. The second part of the analysis presents the results in relation to the types of innovation that managers perceive as most important in the FM organizations, while the third part provides some insights into the role of ICT in FM innovations.

5.1 Perceived FM Innovation Activities

5.1.1 FM Service Providers

This study found that big service providers perceive innovation in their company to be a strategic activity and is conducted as a planned and systematic process. These companies have an innovation strategy and perceive innovation as a strategic priority. For example, a senior manager in a big FM service provider answers to the question whether his company has an innovation strategy in the following way:

To a large extent..each country is measured according to how much innovation they make per quarter (Department Senior Manager, A1)

This study finds that Danish FM service providers have established innovation laboratories and "development departments" with the purpose to continuously come up with new, often incremental, service, contract, process or even partnership innovations. Service innovations are perceived to be small incremental developments of existing ideas or services, often driven by market requirements or changes. This is clearly showed by the following three statements from

three different service providers. For example, a senior manager in company A1 pointed out that they have a change management department that works together with some developers in order to come up with FM service-related innovations:

We have some service developers within the big service areas for example catering, security, post restructuring, reception, and similar. They constantly try to update on what happens on the market. (Department Senior Manager, A1)

Similarly, the development director of A4 and an FM manager in A7 pointed out to the development department as a place where many FM service innovations are developed:

It is here (referring to the development department). This is one big war room, whether it is a sale person, transaction, calculation, if there is something going on, anybody can step in and say: hei could you solve that .. (Development Director, A4)

We have a development department that may look at innovation in FM terms ...at this point we actually have the development department looking at a plan for implementing... energy..... (FM Manager, A7)

Benchmarking is perceived as an important tool to identify important areas where to get ideas from or where to innovate as the Development Director in A4 states below:

Benchmarking in our world is the process of comparing; looking what is behind the figures, which processes leads to the results achieved in our firm. We do benchmarking globally with international clients (Development Director, A4).

However, the development director in A4 differentiates between incremental innovations that he identifies with development and where benchmarking has an important role and more radical types of service innovations, which he perceives as mostly “bought into the company”. This is clearly illustrated by the following statement:

I see difference between development and innovation.....All our operation, our managers have different ways of solving daily issues with our clients, so there is a lot of development going on on-site.... A lot of innovation and know how we buy, by buying competitors or sub-supplier. (Development Director, A4)

The FM service provider that was classified as a small and medium size enterprise also has the perception of innovating, but they do not have innovation as a strategic priority. Their innovations are perceived as mostly ad-hoc and driven by the requirements of big customer companies (A12).

5.1.2 FM Service Customers

The results show that FM service customers with their own FM department perceive innovation as a strategic priority and have clear innovation strategies (A8, A9, A11). For example, the FM manager in A8 states that

In this department (FM department), we do (have a strategy) ...upper management arranges a strategy seminar once per year where the strategy is formulated.. Innovation happens as an interaction between the employees and upper management (FM Manager, A8)

The results also show that FM departments in other organizations perceive themselves as not innovating, but mostly developing their service offerings in very small steps (A5). These companies perceive innovation as something completely new (equivalent to what the literature refers to as radical innovation) and therefore they talk only about development. For example the

FM Department Director at A5 states that they do not have an innovation strategy and they do not really innovate, rather they develop services and service offerings further:

We are absolutely a developing department...We develop our services, but innovation is very rare (FM Department Director, A5)

This perception is further supported by the consultant interviewed in A6, as he also has the perception that no much innovation is taking place in the Danish FM sector as illustrated by the following statement:

Is there any innovation in that (FM)? Until now facility management has been a dry area, so now things have been put in a better frame...I do not think there is much innovation (Construction Consultant, A6).

5.1.3 ICT suppliers/consultants

The organizations belonging to the category “ICT Supplier/consultants” perceive themselves as being innovative and their innovations are both driven by the user needs and the market as well as by the desire to improve their competitiveness. In addition, they innovate due to their own innovation drive and desire to provide FM software solutions that are ahead of the market needs, therefore providing more radical types of FM software solutions. For example the department manager of a smaller provider of FM software (A2) states:

We live by innovating new ideas in the software, because if we had the technologies and ideas that were modern 10 yrs ago and still provided these ideas now, we would not be in the market, so we need to develop constantly to meet new demands, that is innovation for us, and of course creating some solutions that the users have not thought of or could not see that they needed that, but now they need them and there is also where we use a lot of focus in our innovation, making things better, more simple (Department Manager, A2).

These companies perceive their innovations both as incremental (understood as mostly small improvements of the existing), and more radical changes mostly associated with development of new ICT systems or with their use as for example the following statement shows:

Int: Do you think about small changes or also new products, new software..

Resp. Both, you need to make new products, new projects and improve the one for customers by adding some minor improvements or correcting some minor mistakes and the process of developing the software, our consultancy products, must be balanced between these two (Department Manager, A2)

5.2 Types of FM Innovations

The types of perceived FM innovations found in this study can be mainly categorized as service, contract, process as well as business model innovations. Among the service innovations mentioned were a new customized way for the company employees to choose and bundle the Christmas gift through the web site or a new menu in the cantina (A5). Most companies interviewed perceived contract innovations as very important as both FM service customers and providers are constantly looking for new ways of making contracts with the customers/suppliers. For example, a senior manager in a big FM provider (A1) clearly states that the employees in their development department have a special focus on contracting as the following statement shows:

They develop new contracts, they try to make innovations concerning contracts, and how we can work smarter, but not harder, how we can find other ways to do things, by using best practice... (Department Senior Manager, A1)

FM service customers also perceive contract innovation to be important. For example the FM manager in A8, when asked whether he has an example of innovation answered:

Function contracts, a new form for contract...(FM Manager, A8)

Business model innovations including partnerships between the FM service provider and customer were also perceived to be very important in the FM industry. For example the respondent in A8 states that they are working with “development steps” in order to move from “being a janitor company” to be a “portfolio developer”, where the goal is to look into how more actively to use the buildings. In addition, they are developing operational partnerships with service suppliers with the objective, among others, to increase innovation and decrease costs.

In alignment with the service innovation literature (Sundbo, 2007), FM managers perceive that FM service innovation cannot be completely distinguished from the innovation concerning the service process/method as a department senior manager in A1 makes it very clear

-Int: Is this a process or a service innovation?

Resp: Both, to a large extent. We introduced a new method to do cleaning within sterile cleaning and since we are looking at ways to use some specific types of cleaning products, to use some microfibers that can work faster and give a better service quality and put some of those people that do cleaning to do something else. Higher efficiency and service quality... (Department Senior Manager, A1)

5.3 Role of ICT in FM innovation

Innovation in facility services as in many other service sectors is also associated with the use or introduction of new technologies and especially information technology. This study found that perceived important innovation drivers in FM are FM ICT systems assisting the facility management supply chain or IT systems enabling new ways of visualizing the buildings such 3D systems and related facilities services. The introduction of FM ICT systems has been perceived not only to have given rise to service innovations, but also to new ways for FM organizations or departments to organize and deliver their service. This is for example the case of FM services related to the digital construction initiative as a facility manager in a public FM organization clearly states:

If we are talking about innovation inside the frame of our own house I think ... we've been ...doing great leaps forward moving from paper to chips in a very short time ...and that's a very high priority ... I know that we want to also because we have been pushed into the arena by the digital construction initiative. We want to show the world that we are in front, at least on the parts of management, which is involved in digital construction; they have innovation as a high priority. (FM Manager, A7)

6. DISCUSSION

This study provides a picture of the companies in the Danish facility management sector as companies that perceive themselves to be innovative, to have innovation on their strategic agenda, have innovation strategies, development departments and innovation laboratories. These

results are for example different from the results presented by Cardellino and Finch (2006) who found that innovation activities in FM companies based in UK were mainly one shot commitment, even though FM companies were found very active regarding innovation. In our study, especially the big FM service providers and the ICT/consulting companies perceive themselves to be innovative, to have innovation strategies and have innovation as a strategic priority. The FM departments in FM customer companies show different patterns. Some of them state that they have innovation strategies and perceive innovation as a strategic priority, while others perceive themselves as not being innovative. This perception was also supported by some consultants who believe that there was very little innovation going on in the facilities management sector. In many interviews the word innovation and development was used interchangeably and some firms specifically said that they mainly develop, that is make small incremental changes, rather than make huge leaps. The big companies use benchmarking as innovation drive as for example pointed out by Pitt and Tucker (2008) as something that FM companies should do. A major focus was put by the companies on contract innovations, as contracts are very important tools especially when FM services are outsourced from the customer to the FM service providers. Important innovations found in this study were business models innovations. These business models take mainly the form of customer-supplier partnerships as more and more often FM providers and customers try to establish partnerships in order (among others) to increase innovation and decrease costs. This was also recommended by Noor and Pitt (2006) and Goyal and Pitt (2007). The analysis also suggests that FM managers perceive the innovation sources to be both external (e.g. market, customers, partners) and internal to the company (development department, innovation laboratories, top management), thus embracing both open and closed innovation practices. In open innovation practices the role of benchmarking is perceived to be very important especially by big service providers. Market needs and customer wishes are also perceived as important. This is especially the case for the SME participating to the study, stating that innovation in their company was mainly driven by their (usually big) customers' needs. The managers contributing to this study perceive FM service innovations to be a combination of a proactive market orientation by management in collaboration with key employees, and the use of a top-down innovation process. The role of ICT is perceived important in relation to open innovation practices as for example help desk systems, online complaint systems, supply chain data recording systems can be good systems to get ideas and inspiration for further innovation and improvement.

7. CONCLUSIONS AND LIMITATIONS

It can be concluded that the answer to the research question posed in this article is that Danish FM organizations, especially the big FM provider and ICT providers and consultants perceive themselves as being innovative. The main results are that big service providers perceive innovation as a strategic activity and see themselves as innovative companies. FM service customers with their own FM department present mixed results. Some perceive innovation as a strategic priority and have clear innovation strategies. Others perceive themselves as not being innovative, even though they might be. The organizations belonging to the category "ICT Supplier/consultants" perceive themselves as innovative organizations and their innovations are both driven by the user needs and by the desire to improve their competitiveness. The study found that the types of perceived FM innovations can be mainly categorized as service, contract, process and business model innovations. Another final result is that ICT is perceived to be a driver of FM innovations and that FM organizations use both closed and open innovation practices

For FM managers the results provide some useful information about how innovation and innovation activities are perceived by FM companies. The results of this study might also serve as inspiration for FM managers to increase focus and attention to innovation and innovation activities in order to preserve or obtain a competitive advantage. FM researchers can benefit from the study by getting a picture of FM innovation. Finally, service researchers can get some insights about service innovation in a specific and under-researched service sector: facility management.

These results should be however taken with caution since this study is not free of limitations. For example, 15 interviews is still a limited number in order to generalize to the whole FM industry and it could be interesting to conduct a larger amount of interviews. In addition, the companies interviewed are mostly large companies; therefore, we do not get many insights from smaller companies and their innovation activities. In addition, the study provides perceptions of innovation activities in the companies interviewed. Having interviewed only one person in each company, even though this data have been triangulated to the extent possible with secondary data, such perceptions could conduct to different results if for example another person had been interviewed in the company or if several respondents had been interviewed in the same company. Nevertheless, this study provides an important picture of perceived innovation and innovation activities in FM companies.

These limitations could, however, offer some insights for further research. For example, we could conduct many more interviews or a survey to test whether the preliminary results from this study apply to a larger population of FM companies. From a theoretical point of view, it could be interesting to look into the concept of partnerships and how this influences the service innovations and service innovation processes.

REFERENCES

- Alam, I. & Perry, C. (2002), "A customer-oriented new service development process", *Journal of Services Marketing*, Vol.16, number 6, pp. 515-534.
- Alam, I. (2006), "Service innovation strategy and process: a cross-national comparative analysis", *International Marketing Review*, 23(3), 234-254.
- Amaratunga, R.D.G. (2001), "Theory building in facilities management performance measurement: application of some core performance measurement and management principles", unpublished PhD thesis, The University of Salford, Salford.
- Avlonitis, G. J., Papastathopoulou, P. G., & Gounaris, S. P. (2001), "An empirically-based typology of product innovativeness for new financial services: Success and failure scenarios" *The Journal of Product Innovation Management*, 18(5).
- Cardellino, P., Finch, E. (2006), "Evidence of systematic approaches to innovation in facilities management". *Journal of Facilities Management*, 4(3), 150-166.
- Chesbrough, H.W. (2006), *Open Business Model: How to thrive in the new innovation landscape*.
- Chesbrough, H. W. (2003), *Open innovation: The new imperative for creating and profiting from technology*. Boston: Harvard Business School Press.
- Christensen, C. M. (1997), *The innovator's dilemma: When new technologies cause great firms to fail*. Cambridge: HBS Press.
- Chotipanich, S., Nutt, B. (2008) "Positioning and repositioning FM", *Facilities*, Vol. 26 Iss: 9/10, pp.374 – 388.
- Coenen (2009), *FM as Value Driver*, EuroFM RNG, Technical University of Denmark
- Lyngby, May 11th-12th, 2009

- Francis, D. & Bessant, J. (2005), "Targeting innovation and implications for capability development", *Technovation*, 25(3), 171-183.
- Gallouj, F & Weinstein, O. (1997), "Innovation in services". *Research Policy* No.26, pp.537-556.
- Goyal, S., Pitt, M. (2007), "Determining the role of innovation management in facilities management". *Facilities*, 25(1/2), 48-60.
- Jensen, P.A., Voordt, T., Coenen, C., von Felten, D., Lindholm, A.S.L. Nielsen, B.S., Riratanaphong, C., Schmid, M.(2012), "In Search for the Added Value of FM: What we know and what we need to learn", *Facilities*, Vol. 30 Iss: 5/6
- Noor, M., Pitt, M. (2009) "A critical review on innovation in facilities management service delivery", *Facilities*, Vol. 27 Iss: 5/6, pp.211 – 228.
- Nutt, B. (2000), "Four competing futures for facility management", *Facilities*, Vol. 18 Nos 3/4, pp. 124-32.
- Jensen, A. P. (2009), *Markedet for Facilities Management i Danmark*, Report, Center for Facilities Management – Realdania Forskning, DTU Management, Danmarks Tekniske Universitet, June 2009.
- Miles, M.B. and Huberman, A. M. (1994), *Qualitative data analysis: an expanded sourcebook*, Thousand Oaks: Sage Publications.
- Pitt, M., Goyal, S., Sapri, M. (2006), "Innovation in facilities maintenance management", *Building Services Engineering Research and Technology*, Vol. 27 no. 2, pp. 153-164.
- Pitt, M., & Tucker, M. (2008), "Performance measurement in facilities management: driving innovation?" *Property Management*, 26(4), 241-254.
- Price, I. (2002), "Can FM evolve? If not, what future", *Journal of Facilities Management*, Vol. 1, No.1, pp. 56-70.
- Price, I., Ellison, I, and McDonald, R. (2009), *Practical post modernism: FM and socially constructed realities*. In: *European facility management conference: 8th Euro FM research symposium*, Amsterdam, June 16-17 2009.
- Reinartz, W. and Lelong, C. (2006), *ISS-Driving Profits through Customer Satisfaction*, INSEAD, Case 01/2006-5335.
- Sundbo, J. (2007), "Management of Innovation in Services", *The Services Industries Journal*, Vol. 17, No. 3, pp. 423-455.
- Sundbo, J. and Gallouj, F. (2000), 'Innovation as a loosely coupled system in services', *International Journal of Services Technology and Management*, Vol. 1, No. 1, pp. 15-36.
- Then, D.S.S. (1999), "An integrated resource management view of facilities management", *Facilities*, Vol. 17 Nos. 12/13, pp. 462-9.
- Therrien, P., Doloreux, D., Chamberlin, T. (2011), "Innovation novelty and (commercial) performance in the service sector: A Canadian firm-level analysis", *Technovation*, Vol. 31, pp. 655-665.
- Vischer, J. C., (2008), "Towards a user-centred theory of the built environment", *Building Research & Information* 36(3), 231–240
- Yin, R. K. (2003), *Case Study Research Design and Methods*. Beverly Hills, CA, Sage Publications.

