cemerald insight



Journal of Facilities Management

The evolution of facility management business models in supplier-client relationships Giulia Nardelli, Risto Rajala,

Article information:

To cite this document:

Giulia Nardelli, Risto Rajala, (2018) "The evolution of facility management business models in supplier-client relationships", Journal of Facilities Management, Vol. 16 Issue: 1, pp.38-53, <u>https://doi.org/10.1108/JFM-05-2017-0022</u> Permanent link to this document: https://doi.org/10.1108/JFM-05-2017-0022

Downloaded on: 01 February 2018, At: 00:42 (PT) References: this document contains references to 56 other documents. To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 61 times since 2018*

Access to this document was granted through an Emerald subscription provided by emerald-srm: 320271 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

The current issue and full text archive of this journal is available on Emerald Insight at: www.emeraldinsight.com/1472-5967.htm

JFM 16,1

38

Received 8 May 2017 Revised 9 August 2017 Accepted 11 August 2017

The evolution of facility management business models in supplier-client relationships

Giulia Nardelli

Department of Management Engineering, Technical University of Denmark, Kongens Lyngby, Denmark, and

Risto Rajala

Department of Industrial Engineering and Management, Aalto University, Espoo, Finland

Abstract

Purpose – The purpose of this paper is to improve the current understanding of business model innovation by outlining how business models unfold over time within supplier–client relationships in facilities management (FM) services.

Design/methodology/approach – This study of FM services in Denmark consists of an explorative case study and three case studies of FM clients. Both phases, related and overlapping, involved collection and analysis of in-depth, semi-structured interviews and archive data.

Findings – Findings show that business model innovation entails interorganisational collaboration across different phases of the innovation process. The research demonstrates that external orientation within FM service ecosystems involves both a reaction to changes in the external environment and the proactive involvement of stakeholders throughout business model innovation.

Research limitations/implications – The selection of business model innovation processes was limited to the Danish context. The sample, although heterogeneous and representative, represented only a fraction of the total population, which may have excluded processes of business model innovation that contradict the research.

Practical implications – This paper suggests that by observing the business models of the value network over time, organisations could learn from the interdependencies between intra- and interorganisational stakeholders, thereby supporting the monitoring of risks and uncertainties as well as the anticipation of potential consequences of changes in the ecosystem.

Originality/value – This paper introduces new thinking on the subject of business model innovation to the context of FM. It presents the external orientation of FM business models as a way to combine planned and emergent business model innovation through interorganisational collaboration and value creation in FM ecosystems.

Keywords Innovation, Process, Services, Facilities management, Value creation, Business model

Paper type Research paper

Introduction

A firm's business model has traditionally been conceptualised as a framework that helps us understand how that firm creates and captures value (Amit and Zott, 2001). While it is important to depict the essential processes of value creation and capture of the firm, recent research has focussed on business model innovation for the survival and sustainability of firms and their stakeholders (Martins *et al.*, 2015; Spieth *et al.*, 2014). This view of business model innovation has accentuated the need to broaden the perspective on business models to



Journal of Facilities Management Vol. 16 No. 1, 2018 pp. 38-53 © Emerald Publishing Limited 1472-5967 DOI 10.1108/JFM-05-2017-0022 study the external orientation of a firm's operation in its environment. Hence, as the traditional business model conceptualisations (Hedman and Kalling, 2003; Nenonen and Storbacka, 2010; Tikkanen *et al.*, 2005) integrate market-related aspects and those found internally within the firm, the evolution and innovation perspective of a firm's business model investigates how a business model is influenced by the firm's reaction to both internal and external pressures and to changes in the environment (Velu, 2015). The current study builds on this background to observe the interactions in firms' inter- and intraorganisational collaboration to build a better understanding of the evolutionary processes of business model innovation in supplier–client relationships. In particular, we improve on the explanations of the evolution of business models in the context of facilities management (FM) services.

FM services are increasingly being recognised as a key service sector. The FM service sector embodies a diverse and highly competitive market of FM providers, in-house FM units and FM consultants (Cardellino and Finch, 2006). FM service provision has traditionally been distributed across several organisations, with management allocated to undedicated and unspecialised employees and situational and uncoordinated decision-making. Over the years, organisations have started hiring specialised providers to take care of FM and have originated a multitude of processes of business model creation and evolution (Jensen and Andersen, 2010; Rasmussen *et al.*, 2012; Roper, 2017).

In this study, we adopt a dynamic approach to business models and investigate how business model innovations for FM services unfold over time within supplier–client relationships. Through a study of Denmark's FM context, our empirical research uncovers the intertwined processes of business model innovation in an ecosystem of business-tobusiness support services. In so doing, this study provides insights into the complex processes of business model innovation and the adaptation of a firm's business model to the ways that value is created among FM service ecosystem's actors.

The paper is organised as follows. After this introduction, the next section outlines the conceptual background of the study and the context of our empirical research. The subsequent section describes the research method, the data and the analyses. Thereafter, the paper presents the findings. The final section discusses the observations and implications of this work for scholars and business practitioners.

Background for research

The business model construct: dynamics and external orientation

Whereas the business model of a firm has been described as a static representation of the current articulation of an organisation's activities designed to produce value propositions to the customers (Osterwalder, 2004), researcher's focus has shifted to analysing the dynamic nature and the endogenous and exogenous changes that drive business model transformation (Doz and Kosonen, 2010). In the literature, a firm's business model is described as "a reflection of the firm's realized strategy" (Casadesus-Masanell and Ricart, 2010). Moreover, a business model is considered to embody the "essence of a firm's strategy" (Gambardella and McGahan, 2010). In these lines of thought, business model innovation is linked with a firm's strategy development.

The literature is rich in papers that describe models of the process of business model innovation. The models range from prescribed and linear business model life cycles (Amit and Zott, 2012; Morris *et al.*, 2005; Willemstein *et al.*, 2007) to emergent and co-evolutionary process models (Achtenhagen *et al.*, 2013; Aspara *et al.*, 2013; Demil and Lecocq, 2010; Svejenova *et al.*, 2010). A growing body of research (Wirtz *et al.*, 2016) emphasises the experimental nature of business model innovation instead of it being a structured and

JFM 16,1

40

planned management task (Johnson *et al.*, 2008) and characterises its dynamics as a combination of exploitation and exploration (Sosna *et al.*, 2010).

The current view of business models integrates firm-internal and market-related aspects and acknowledges that in response to external stimuli, organisations evolve and develop new business models through the mutation of existing business model components (Hedman and Kalling, 2003; Nenonen and Storbacka, 2010; Tikkanen *et al.*, 2005). Such mutations emerge as consequence of the co-evolutionary relationship between the business model of an organisation, its social context (Teece, 2010) and the FM service context (Alexander and Price, 2012). On the one hand, Chesbrough and Rosenbloom (2002) have underlined that successful business model innovation requires the coordinated effort of various actors within the organisation. Sanchez and Ricart (2010), on the other hand, observe that an organisation's ecosystem might have a decisive influence on business model configuration and innovation. We therefore consider a business ecosystem as a valuecreating network "where the value proposition is offered by a group of companies which are mutually complementary" (Clarysse *et al.*, 2014).

Ecosystem-oriented business models, that is, those connected with other actors' business models, better support reciprocal learning and experimentation as compared to isolated ones and, thus, allow exploiting opportunities while being part of the opportunity itself (Sanchez and Ricart, 2010). Similarly, Storbacka and colleagues explained how organisations tend to orchestrate their stakeholders to provide solution elements to selected customers, therefore, influencing value-creating opportunities in and for the whole network (Storbacka *et al.*, 2013; Nenonen and Storbacka, 2010).

Business model innovation: external orientation and the influence of partners in the business ecosystem

Building on work on a firm's business model in its business ecosystem, we consider business model innovation as the activity that creates a new market or exploiting new opportunities in markets through endogenous changes and in response to exogenous changes. This study builds on the assumption that business model innovation is driven by the stakeholders' willingness to improve the way a firm creates value (Zott and Amit, 2010; Amit and Zott, 2012, 2001). Hence, business models depict the content, structure and governance of the transactions that organisations design to create value through the exploitation of business opportunities (Table I). Amit and Zott's definition of a business model (Zott and Amit, 2010; Amit and Zott, 2012, 2001) has been used widely as the conceptual basis for analysing how business model innovation moves within and across

	Business model content	Business model structure	Business model governance			
	Object of exchange between the organisation and the external environment	Parties that participate in the exchanges	Controlling mechanisms by the involved actors for the flows of information, resources and goods			
	Resources and capabilities required to implement the exchanges	Links between the involved parties	Legal form of an organisation			
model		Order in which exchanges take place	Incentives for the participants in the transactions			
moder	Source: Adapted from Amit and Zott (2001) and Zott and Amit (2010)					

Table I. The business r construct the layers of the business model, in addition to including the role of both internal and external actors.

Building on the organisational learning literature, Sosna *et al.* (2010) describe business model innovation as a process of trial and error, a process that is not linear, but rather iterative and emergent. To simplify the business model innovation process, with its prescribed and emergent aspects, they divide the process into phases of exploration and exploitation, which are now used widely in the research on organisational learning (March, 1991) and innovation. Further, they suggest that the process offen consists of four stages:

- (1) initial business model design and test;
- (2) business model development;
- (3) scale-up with a sustainable business model; and
- (4) sustained growth through organisational learning (Sosna et al., 2010).

To understand the external orientation of the business model construct, it is important to investigate the context in which an organisation operates. Previous research shows that, if business model innovation emerges as a consequence of the co-evolutionary relationship between the business model of an organisation and its social context (Hedman and Kalling, 2003; Tikkanen *et al.*, 2005), then the business models of the key actors around that organisation must change along with the firm's business model innovation. With this in mind, we investigate how a business model unfolds over time, not only for one organisation but also for the key actors that gravitate to it. For the sake of simplicity, we limit our empirical observation to supplier–client relationships within the context of providing facility services. In so doing, we analyse the interconnectedness of the business model innovation processes of the entities involved in such relationships.

Subject of analysis: facilities management services in Denmark

The Danish context was selected for this investigation as representative of FM services across Europe (Jensen, 2008, 2009), as several business model innovation processes have unfolded against the same background and conditions in the past decade. Therefore, FM services in Denmark represent a critical case for the investigation of the research question that this study investigates. FM services, moreover, offer the possibility to observe transparently relations and interactions among key actors of business model innovation over time, owing to the recurrent and recognisable structure of the value network (Coenen *et al.*, 2013). In fact, as business-to-business support services, FM services often are outsourced and thus present a peculiar value network (Tucker and Aderiye, 2016; Haugen and Klungseth, 2017).

Large organisations often require a formalised unit to oversee FM services and ensure that its employees can carry out their core tasks and activities. Such a unit, regularly organised as the internal FM unit, carries the responsibilities of FM service provision and, when FM is outsourced, manages the relationships and outsourcing contracts with the external facility service provider(s). The internal FM unit, thus, plays a double role:

- (1) as the internal service provider for the organisation and its employees; and
- (2) as the customer of the external service provider, with whom it negotiates the contracts as the basis of the service provision.

Besides the internal FM unit, two more stakeholders are on the demand side of the FM service provision:

JFM 16,1

42

- (1) the client (i.e. the organisation, which orders and pays for the FM service provision); and
- (2) the end users (i.e. employees and customers of the organisation, who receive and benefit from the FM service provision) (Coenen *et al.*, 2013).

In such a value network, each party has its own needs and expectations. Congruent with Aspara *et al.* (2013), we acknowledge that any firm can possess multiple businesses, or business units, each of which can have its own business model. In FM services, the value network of heterogeneous actors entails a variety of corporate- and business unit-level business models. More precisely, corporate business models, the business models of firms, are defined here as the corporate top management logic of how value is created by the corporation and include, for example, the business model of the client organisation (as perceived by its top management) and that of the outsourced providers. Conversely, business unit-level business models are the business unit managers' perceived logic of how the unit in question functions and creates value in connection both with its market environment and within the corporation (Aspara *et al.*, 2013). In the context of FM services, business unit-level business models are, for instance, those of the internal FM unit and of the corporate units to which end users belong.

Methods

This study adopts a longitudinal approach to investigate how business model innovation unfolds over time within supplier-client relationships in Denmark's FM context, which provides a rich setting to investigate how business model innovation takes place in business ecosystems that consist of several autonomous actors that collaborate for value creation. In particular, we investigate the process of business model innovation in business-to-business support services.

Data collection

Despite the increasing interest that researchers have taken in the FM service context, in Denmark and in Europe, business model innovation has not yet been studied (Roper, 2017). Therefore, the data collection for this study comprised two related and overlapping phases:

- an explorative study over 2012, aimed at understanding innovation processes within facility services in Denmark; and
- (2) three case studies (Weill and Olson, 1989) across 2012 and 2013 in three client companies (Companies 1, 8 and 13 in Table II).

The case studies focussed on the processes of business model innovation. Archival data were collected in both phases to ensure triangulation (Achtenhagen *et al.*, 2013; Eisenhardt, 1989; Sosna *et al.*, 2010). The critical incident technique was used in both phases of data collection and analysis to ease the identification of critical events that illustrated and explained the inter- and intraorganisational interactions among the key actors of the business model innovation processes under investigation (Butterfield *et al.*, 2005; Flanagan, 1954; Gremler, 2004).

In the explorative phase, the empirical data were collected through 14 semi-structured interviews of 13 facility services organisations from client to providers (at Company 9, two interviews were carried out with representatives of the global and the local organisation). The interview guide for the explorative phase included generic questions on both long-term strategy and daily facility service provision. We explicitly asked respondents to elaborate on

Case	FM role	Core business	Staff	Informant	Facility management
1	Client	Financial services	32,500	Head of contract management and IFM development	business
2	Client	Logistics et al.	n.a.	Global facility management	models
3	Provider	Cleaning	300	CEO	
4	Client	IT services	98,000	Facility manager	
5	Provider	Hard FM services	8,000	Market manager	43
6	Client	IT services	430,000	Real estate site operations manager	-
7	Provider	Hard FM services and FM consulting	6,200	Senior project manager	
8	Client	Industrial Biotech	5,500	FM director FM manager	
9	Provider	Facility services	534,500	Head of knowledge sharing and engagement Commercial director and CFO Segment director	
10	Provider	Real estate	370	Head of operations	
11	Provider	Technical FM	162,000	Nordic head of projects	
12	Client	Transportation services	5,500	Facilities manager Group procurement manager	Table II.The sample for the
13	Client	Telecom equipment	7,500	Global head of facility management	explorative study

those events that made a significant contribution – positive or negative – to the activities or phenomena that we were discussing (Ahola, 2009; Nardelli, 2017; Gremler and Gwinner, 2008; Butterfield et al., 2010; Specht et al., 2007). The sample for the explorative study (Table II) included two main types of FM service practitioners – customers and providers – within the Danish field. We selected interviewees through a combination of convenience (at the beginning of the study) and snowball (later on) sampling criteria (Eisenhardt, 1989) to ensure a representative sample (Andriopoulos and Lewis, 2008; Eisenhardt and Bourgeois, 1988). All interviewees on the customer side shared the responsibility of managing the internal facility service unit and the business model innovation processes that were chosen for the investigation. The respondents on the provider side were senior managers or directors of outsourced FM providers, which meant they had extensive experience with facility service provision and innovation. In addition, all providers but two (Companies 3 and 10 in Table II) were working for one or more of the clients in the sample to allow multiple perspectives on the same relationships and interactions. We selected a heterogeneous sample to offer an overview of innovation within the Danish FM context, covering the variety of needs and expectations and, consequently, of different business models among the key actors involved in business model innovation. Although some end users of FM services are customers of the client organisation (Coenen et al., 2013), we did not include them in our study as they fall beyond its scope.

We narrowed down the research focus while the investigation progressed by comparing data from the explorative study with the literature (Dubois and Gadde, 2002). We selected three companies from the sample of the explorative study (Companies 1, 8 and 13 in Table II). The choice was based on the identification of comparable business model innovation processes that took place approximately within the same time span and under the same circumstances, and in which it was possible to observe and study unfolding interactions and relations among the key actors.

For the three case studies, we conducted eight in-depth semi-structured interviews, along with extensive archival data collection. We built the interview guides for the in-depth interviews with the aim of collecting additional details and examples on the business model innovation processes which had been identified during the explorative round. Again, we applied the critical incident technique and, once interviewees mentioned a critical event, we asked for and documented its time, description, cause and results (Ahola, 2009; Nardelli, 2017; Gremler and Gwinner, 2008; Butterfield *et al.*, 2010; Specht *et al.*, 2007). Based on the principles of theoretical sampling (Eisenhardt and Bourgeois, 1988; Pettigrew, 1997), the companies selected for the mini case studies share the following characteristics:

- Their core business is not FM services; hence, they are demand stakeholders of FM providers.
- They are multi-national organisations. Most FM services are provided on a local basis, although there is some international coordination.
- They implement a combination of in-house and outsourced FM provisions. In-house services include investment, financial and space services; operational and soft services are outsourced.
- Their FM units provide space-related services and oversee the relationships with the outsourced providers for operational and soft services. The FM units also control investment- and financial-related facility services in cooperation with the units that manage the finance and accounting.
- The internal FM units interact with internal and external parties, including outsourced providers, consultants and academics when managing innovation processes.

Nonetheless, the selected companies also had two main differences, which support the evaluation of the relevance and generalisability of the findings (Achtenhagen *et al.*, 2013; Lee and Baskerville, 2003). First, each company's core business falls into a different field:

- financial services (Company 1, referred to as Bank);
- industrial biotechnology (Company 8, referred to as Industrial Biotech); and
- telecommunications equipment (Company 13, referred to as Telecom Manufacturer).

Second, the combination of in-house and outsourced FM services differed at the time of our interviews. Bank had several outsourced suppliers and two internal units, each of which was responsible for a set of facility services. However, it was in the process of creating an integrated facility service contract, thereby hiring one single, integrated supplier to take care of all outsourced facility services (operational and soft services). Industrial Biotech had also hired a combination of outsourced suppliers, but only one unit was dedicated to all facility services. Telecom Manufacturer, though, had one FM unit that managed the relationships with one integrated and outsourced provider of facility services.

Data analysis

We built a structured database (Lehrer *et al.*, 2012; Nardelli, 2017) before we uploaded it onto Atlas.ti for data analysis. In the process of analysing the data, we carried out systematic, line-by-line open and axial coding for the primary observations in the data. Specifically, we coded and grouped critical events both inductively and according to theory by classifying them into concepts, categories and links. Specifically, we mapped results against components of the business model construct (Amit and Zott, 2012, 2001; Zott and Amit, 2010) and phases and dynamics of the business model innovation process (Sosna *et al.*, 2010). The purpose of this iteration was to understand how concepts and categories

IFM

(i.e. abstractions of the examples cited by the respondents) related to each other, and how the progression of events unfolded over time in the cases we studied. We then analysed each combination of axial code and critical incident individually, with emphasis on the dynamics of business model innovation. In the process, we also evaluated the validity and relevance of the principal categories using secondary material in the field (Dubois and Gadde, 2002).

Findings

The latest available study on the size of the Danish FM context estimated it to generate a market of nearly €5bn, which includes real estate (€2.6bn) and over 50,000 dedicated back office and front-line employees (≤ 2.3 bn), which are distributed among outsourced providers and internal facility service units (Jensen, 2009, 2011). Over the past decade, dedicated education and research has developed, and organisations have started hiring specialised providers manage facility service processes and outcomes. By this transformation, organisations have ensured that the decision-making and related implementation could be more efficient and better coordinated (Jensen and Andersen, 2010; Rasmussen et al., 2012). By taking internal FM units as focal organisations, the following section describes how business model innovation emerged and unfolded within supplier-client relationships in FM services, with examples from our three case studies. The investigation encompasses the whole ecosystem of such internal FM units, with an emphasis on the client-supplier relationships between internal FM units and external facility service providers. To present our findings, we build on Sosna et al.'s (2010) process model and follow the unfolding of business model innovation processes in Denmark's FM context in the course of exploration and exploitation.

Explorative processes of business model innovation by internal facilities management units in Denmark

Within the investigated ecosystems, business model innovation processes started with client organisations as initial driver of business model development. The top management of the client organisations decided on the transition from unstructured governance to dedicated FM management with the aim of achieving the right combination, given their context, of needs and expectations of client organisation (e.g. through cost competitiveness) and end users (e.g. service quality). Having made that decision, top management allocated financial and human resources to form embryonic FM units and determined where to position them within the organisational structure. In collaboration with the designated FM managers, top management defined goals, missions and visions of these newly created FM units. FM managers assessed the portfolio, context and relations associated with FM service provision against the new strategy, and selected the best available external providers given the new goals and the budgetary constraints. Accordingly, they established new provision contracts and re-designed the combinations of in-house and outsourced FM services by enlisting end users, outsourced providers and even other external parties into decision-making. End users participated in the design of the FM service portfolio through surveys, focus groups and idea competitions that helped determine their needs and expectations. Outsourced providers helped FM units in identifying incentives and control mechanisms, which would support a service provision that could match client and end-user needs and expectations. Moreover, in some cases, internal FM units collaborated with other external parties, such as academics, consultants and fellow FM managers. The purpose of these collaborations was to benchmark the FM service provision and identify potential synergies and complementarities in FM service provision.

In the case of Industrial Biotech, for instance, the decision to establish an internal FM unit came when the client organisation demerged from its mother company. Top management selected a dedicated FM manager from the purchasing department and gave him the resources to evaluate and select the FM service portfolio and provider relationships. The FM manager started hiring dedicated employees to work with him in the FM unit and became a director of FM. To select the best available external providers given the strategy and focus determined with his top management, the FM director launched a tendering process. Throughout the tendering, he worked closely with potential providers and with end users, matching needs and expectations across the FM service provision ecosystem. Once he had selected and contracted a combination of large and small outsourced providers, the internal FM unit worked with them to design the FM service portfolio. The purpose of these interactions was to build an intraorganisational entity that could satisfy end users' operational needs while ensuring the transparency and cost efficiency that the client organisation needed to succeed in the stock market. In so doing, the embryonic FM unit was supporting both the operational and the strategic layer of the client, while ensuring end-user satisfaction. Similarly, the internal FM unit of Telecom Manufacturer directed its interactions with outsourced providers and end users towards a business model innovation that would combine the overall needs of the client organisation with the individual needs of the end users. For instance, Telecom Manufacturer's FM unit teamed up with its main outsourced provider and held a competition to collect suggestions from end users and frontline facility service employees on how to innovate their service offering. At the same time, they administered a quarterly user survey to evaluate end users' perceptions of service quality and used the results to redesign their contract with the outsourced provider. Taken together, the competition and the user survey gave a better understanding of end users' and front-line employees' needs and expectations. Building on these findings, the FM unit innovated the content, structure and governance of their business model. The innovation resulted in improving the service offering to match the expectations emerging from the user surveys for example by offering the possibility to take away food from the canteen (content innovation); changing the determinants of their relationship with the outsourced provider for example by shifting from traditional supply to partnership-like relations (structure innovation); in redefining the controlling mechanisms of their relations with outsourced providers and end users for example by changing output-based to activity-based contracts (governance innovation).

Exploitative processes of business model innovation by internal facilities management units in Denmark and abroad

As they started operating on a multi-national scale within their organisations, the internal FM units scaled-up their business model towards sustained growth. Again, the top management of the client organisations triggered the development of the business model. Top management did so by broadening FM units' scope and granting them centralised responsibilities over FM service provision outside of Denmark. The business model innovation followed similar steps as it had in the exploration phase. Top management determined the multi-national responsibilities of the FM units and allocated resources accordingly. FM units assessed the global status of FM service provision, and evaluated differences and similarities in stakeholder needs and expectations across countries. The active and continuous involvement of end users and outsourced providers allowed for an understanding of the heterogeneity of stakeholder needs, expectations and business models. Specifically, FM units launched international end-user surveys and ethnographic research to monitor and align end users' needs and expectations beyond Danish borders. They also

IFM

worked with local outsourced providers to identify how FM managers could transfer local learning, resources and competences to a global scale. Consequently, FM units could decide on which elements of their business model to standardise and to customise. As they did during exploration, FM units interacted with intra- and inter-organisational stakeholders to strengthen the competitiveness of their business model, this time on a multi-national scale. As intra-organisational entities, FM units strived for innovating their business model into globally competitive internal service providers. They did not compete with other organisations' FM units, but rather with other supporting functions within their own organisation (e.g. IT service), with which FM units shared budget. Therefore, a competitive business model required a good balance between cost of service and end-user satisfaction, given the local and global strategies of the client organisations.

In Bank, the FM unit standardised the governance of its business model on a multinational scale by signing a cross-national, integrated contract with an external FM service provider. This standardisation was possible as, at the time of the study, Bank operated primarily in Scandinavian countries, and this context allowed shared form, incentives and controlling mechanisms across countries. However, the cultural differences among these countries called for a customised re-design of the FM service portfolio, resources and structure. This meant that, although the transition towards integrated FM service provision was part of the same international contract, the internal FM unit and the integrated external provider co-designed FM service provision to match needs and expectations of local clients and end users. For instance, they established canteen services with take-away options in Denmark while offering lunch desk-delivery in Sweden. Similarly, they adopted different modes of interactions between local FM units, outsourced providers and end users, while communicating with top management in the same ways. This combination of standardisation and customisation enabled local FM managers to coordinate and support the client's strategy globally, while ensuring high satisfaction among local end users.

External orientation of business model innovation processes within facilities management supplier–client relationships

The interactions observed in this study show how FM units developed their business model as their understanding of stakeholder needs and expectations increased. The dialogue across stakeholders in the ecosystem increased transparency and revealed different elements of the stakeholders' business models. By clarifying needs and expectations of clients, end users and outsourced providers, internal FM units arrived at a better understanding of the needs and expectations of their stakeholders. This understanding was crucial for the business model design and development of internal FM units, because the match with stakeholder needs and expectations determined the competitiveness of the business model being innovated. Moreover, the ongoing cooperation made it possible for FM units to monitor changes in the needs and expectations of their stakeholders, thereby supporting the external orientation of the business model. Furthermore, it enabled FM units to formalise the modes of interactions that were best suited to the characteristics of each party (e.g. ad hoc meetings with top management, recurrent assessment workshops with external providers and quarterly end-user surveys). To build a competitive business model for intra-organisational entities that could serve the client organisations both operationally and strategically, interactions between FM units and their stakeholders balanced cost efficiency and service quality given the long- and short-term goals of the client organisation.

In the case of Industrial Biotech, the business model innovation unfolded around the focus on transparency and cost efficiency due to the need of the client organisation to be competitive in the stock market. Conversely, in Telecom Manufacturer, end users'

expectations drove the innovation of the business model. In the telecommunication industry, in fact, the job market is extremely competitive, and client organisations place a strong strategic focus on keeping their employees happy to prevent them from going to work for other companies. Telecom Manufacturer's FM unit, therefore, strived to provide highly innovative and differentiated workspaces and related services to support its client organisation in retaining employees.

The interactions observed in this study revealed how the business model innovation of internal FM units triggered innovation in the business models of their outsourced providers. The involvement in the business model innovation of FM units, in fact, allowed outsourced providers to understand their customers better and on a continuous basis. By participating longitudinally in the development of FM units, outsourced providers could build a solid foundation to assess their own business model within its context and then experience changes of needs, expectations and direction in the FM units' client organisations and end users. The longitudinal understanding of their demand thus offered a strategic advantage to outsource providers, who could innovate their business models to match their customers' dynamic focus. One of the outsourced providers that Industrial Biotech selected through the tender, for instance, adopted a new type of contract and way of working to match the needs and expectations of the internal FM unit of Industrial Biotech. At the time of the interview, the provider only worked with global, integrated agreements that also included consulting. Yet, the provider started working on a not-integrated, local contract that privileged transparency and cost efficiency with Industrial Biotech as it offered access to the Danish market. As a result, the external provider developed a new business model aimed at the Danish market.

Similarly, the integrated FM provider of Telecom Manufacturer created new services with the internal FM unit and later accepted the adoption of a new type of contract built around incremental innovation and end-user satisfaction, rather than on the amount of provided services. The external provider then adapted its organisational structure to match the new services and contract typology, thereby innovating its entire business model. The new business model, specifically, provided competitiveness in the Danish FM market owing to its focus on close collaboration among stakeholders, diversified innovation outcomes and end-user satisfaction.

In the case of Bank, the influence of the business model innovation of the internal FM unit influenced a provider in its ecosystem even beyond formal contracts. In fact, when the FM unit of Bank changed the structure of its business model to support the top management's request for more centralisation, it started a provider selection process to go from several contracts with a variety of outsourced providers towards one integrated agreement with a single provider. Consequently, one of its providers decided to extend its service offering (innovation in the content) and become an integrated facility service provision (innovation in the structure and governance). While the Bank's FM unit did not select this provider for its shift towards integrated FM service provision, the interaction uncovered a trend in the Danish FM market that the outsourced provider decided to follow. Therefore, the provider continued broadening the scope of its FM service provision and innovated the business model with the aim of attracting a bigger share of Danish customers.

Discussion and conclusions

This work investigates how business model innovation unfolds over time within supplierclient relationships of FM services in a business-to-business context. As outlined in the previous literature, business models evolve over time, and their development and innovation in interorganisational settings is driven by the participants' desire to survive in the

IFM

competition and create more value for their customers, which embraces innovating valuable partnerships and new ways of creating value in business ecosystems. Given the external orientation of the business model, the creation of value cannot be oriented only towards the focal organisation but must also include the interaction among the actors in the business ecosystem. As shown in this empirical study, business model innovation entails interorganisational collaboration across different phases of the innovation process.

Our analysis delineated that FM supplier–client relationships unfold and evolve along business model innovation. Such relationships appear to support the creation, distribution and appropriation of value by both parties in cooperation, rather than being driven by unidirectional support from one party to another. As a whole, our findings contribute to the literature on business model innovation within the FM service context. In fact, they reveal how external orientation, within FM service ecosystems, involves not only the reaction to changes in the external environment (Hedman and Kalling, 2003; Nenonen and Storbacka, 2010; Tikkanen *et al.*, 2005; Alexander and Price, 2012) but also the active involvement of stakeholders in business model exploration and exploitation.

Theoretical implications

Our findings underscore that within the ecosystems that we investigated; each party cooperated with other entities at some point in the business model innovation. FM units and their interorganisational counterpart – the outsourced providers – choose to adapt and develop their business models over time as a response to each other's developments. By closely interacting with stakeholders, in fact, internal FM units and outsourced providers could understand and monitor their needs and expectations better over time, thereby being able to develop their business model accordingly. This result extends Sanchez and Ricart's (2010) argument to the FM context, as it highlights how interactive business models within FM service ecosystems support reciprocal learning and experimentation. Moreover, by involving stakeholders in decision-making related to the development of business model elements, internal FM units and outsourced providers can thus improve the competitiveness of their decisions and support each other throughout business model innovation.

Nevertheless, the characteristics of the ecosystems under investigation certainly affected the outcomes of the analysis. In fact, ecosystems of FM services are characterised by a support relationship between the FM units and their intraorganisational stakeholders that is the top management and end users. While the reciprocal impact of the business model development between the FM units and their outsourced providers has been very evident across the whole innovation process, the supportive nature of provision of facility services might have limited the effect of the FM units' business model innovation on the business models of the client organisation and its other business units. Further research building on the differentiation between corporate and business model innovation processes of intra-organisational entities.

To sum up, the contribution of this work stands in the argument that, in FM services, business model innovation is the result of the intertwining of emerging trends and events related to the needs and expectations across stakeholders within the ecosystem and the results of the organisation's deliberate decisions. This work, thus, extends the understanding of interdependency of the elements of the business model (Achtenhagen *et al.*, 2013; Amit and Zott, 2012; Mäkinen and Seppänen, 2007; Morris *et al.*, 2005; Zott and Amit, 2010) towards external orientation by revealing the dynamic intertwining of stakeholders' business models within the ecosystem.

Managerial implications

Based on our study of facility services in Denmark, we suggest that the processes of business model innovation within supplier-client relationships are intertwined, as they result from a combination of emerging trends and events related to stakeholder needs and expectations across stakeholders within the ecosystem and each organisation's deliberate decisions. This finding has both theoretical and practical implications. On the one hand, it underlines the role of interactions between intra- and interorganisational parties as drivers for value creation within processes of business model innovation. On the other hand, it calls for further work on how such a role is and could be supported in the intraorganisational context that is which capabilities are involved. For instance, Sosna *et al.* (2010) propose organisational experimentation, trial-and-error learning, as well as agility and adaptability as inner characteristics of value creation throughout business model innovation processes. Achtenhagen et al. (2013) add the balanced use of resources and coherence between active and clear leadership, strong organisational culture and employee commitment – but how do all these capabilities relate to the external orientation of the business model? In this regard, our study has implications for the emerging praxis of business model innovation, as the identified dynamics and pursuit of interactive consistency may support organisations in managing business model innovation processes better.

In particular, our findings reveal the importance of monitoring and proactively interact with the ecosystem throughout evolution of the involved business models. By observing the business models of the value network over time, organisations could be able to learn from the interdependencies between intra- and interorganisational stakeholders. In turn, this might support the monitoring of risks and uncertainties as well as the anticipation of potential consequences of changes in the ecosystem. Ultimately, the external orientation of business model innovation may fuel the implementation of deliberate action to master the dynamics and interactions between business models in the ecosystem.

Limitations and avenues for further research

While this study offers an empirically grounded understanding of the ways business model innovation unfolds over time within supplier-client relationships in the context of FM services, it is not free from limitations. First, the selection of business model innovation processes was limited to Denmark. The sample, although heterogeneous and representative, represented only a fraction of Denmark's total population, which may have excluded processes of business model innovation that contradict the research. The investigation of a specific context, moreover, such as that involving the provision of FM services, does not lead to definitive conclusions so there is a need for further research to strengthen the internal and external validity of results. Hence, we call for more research to investigate the interactions between intra- and interorganisational parties throughout business model innovation processes in other types of supporting services, such as IT management, which might accentuate the role of technology and technological capabilities in business model innovation. Moreover, there is room for the theoretical and practical development of knowledge about business model innovation for other than business-to-business support services, where ecosystems might resemble or differ from those of FM services. Finally, the analysis revealed that nurturing of personal relationships, trust and transparency between the individual actors might be critical influencers of interactions across ecosystems. To investigate the nature and implications of such influencers on the unfolding of business model innovation processes within FM service ecosystems, further research should therefore focus on interactions at the individual level.

IFM

References

- Achtenhagen, L., Melin, L. and Naldi, L. (2013), "Dynamics of business models strategizing, critical capabilities and activities for sustained value creation", *Long Range Planning*, Vol. 46 No. 6, pp. 427-442.
- Ahola, T. (2009), "Efficiency in project networks: the role of inter-organizational relationships in project implementation", Doctoral dissertation, Helsinki University of Technology, Department of Industrial Engineering and Management, Doctoral dissertation series 2009/10. Espoo, Finland.
- Alexander, K. and Price, I. (2012), Managing Organizational Ecologies: Space, Management, and Organizations, Routledge, Abingdon.
- Amit, R. and Zott, C. (2001), "Value creation in E-business", Strategic Management Journal, Vol. 22 Nos 6/7, pp. 493-520.
- Amit, R. and Zott, C. (2012), "Creating value through business model innovation", MIT Sloan Management Review, Vol. 53 No. 3, pp. 40-49.
- Andriopoulos, C. and Lewis, M.W. (2008), "Exploitation-exploration tensions and organizational ambidexterity: managing paradoxes of innovation", *Organization Science*, Vol. 20 No. 4, pp. 696-717.
- Aspara, J., Lamberg, J.-A., Laukia, A. and Tikkanen, H. (2013), "Corporate business model transformation and inter-organizational cognition: the case of Nokia", *Long Range Planning*, Vol. 46 No. 6, pp. 459-474.
- Butterfield, L.D., Borgen, W.A., Amundson, N.E. and Maglio, A.-S.T. (2005), "Fifty years of the critical incident technique: 1954-2004 and beyond", *Qualitative Research*, Vol. 5 No. 4, pp. 475-497.
- Butterfield, L.D., Borgen, W.A., Amundson, N.E. and Erlebach, A.C. (2010), "What helps and hinders workers in managing change", *Journal of Employment Counseling*, Vol. 47 No. 4, pp. 146-156.
- Cardellino, P. and Finch, E. (2006), "Evidence of systematic approaches to innovation in facilities management", *Journal of Facilities Management*, Vol. 4 No. 3, pp. 150-166.
- Casadesus-Masanell, R. and Ricart, J.E. (2010), "From strategy to business models and onto tactics", Long Range Planning, Vol. 43 Nos 2/3, pp. 195-215.
- Chesbrough, H.W. and Rosenbloom, R.S. (2002), "The role of the business model in capturing value from innovation: evidence from Xerox corporation's technology spin-off companies", *Industrial* and Corporate Change, Vol. 11 No. 3, pp. 529-555.
- Clarysse, B., Wright, M., Bruneel, J. and Mahajan, A., (2014), "Creating value in ecosystems: crossing the chasm between knowledge and business ecosystems", *Research Policy*, Vol. 43 No. 7, pp. 1164-1176.
- Coenen, C., Alexander, K. and Kok, H. (2013), "Facility management value dimensions from a demand perspective", *Journal of Facilities Management*, Vol. 11 No. 4, pp. 339-353.
- Demil, B. and Lecocq, X. (2010), "Business model evolution: in search of dynamic consistency", Long Range Planning, Vol. 43 Nos 2/3, pp. 227-246.
- Doz, Y.L. and Kosonen, M. (2010), "Embedding strategic agility: a leadership agenda for accelerating business model renewal", *Long Range Planning*, Vol. 43 No. 2, pp. 370-382.
- Dubois, A. and Gadde, L.E. (2002), "Systematic combining: an abductive approach to case research", *Journal of Business Research*, Vol. 55 No. 7, pp. 553-560.
- Eisenhardt, K.M. (1989), "Building theories from case study research", Academy of Management Review, Vol. 14 No. 4, pp. 532-550.
- Eisenhardt, K.M. and Bourgeois, LJ. (1988), "Politics of strategic decision making in high-velocity environments: toward a mid-range theory", *Academy of Management Journal*, Vol. 31 No. 4, pp. 737-770.
- Flanagan, J. (1954), "The critical incident technique", Psychological Bulletin, Vol. 51 No. 4, pp. 327-359.

Facility

Gambardella, A. and McGahan,	A.M. (2010),	"Business-model	l innovation:	general purpose	technologies
and their implications for	· industry stru	ucture", Long Rai	nge Planning	, Vol. 43 Nos 2/3,	pp. 262-271.

- Gremler, D.D. (2004), "The critical incident technique in service research", Journal of Service Research, Vol. 7 No. 1, pp. 65-89.
- Gremler, D.D. and Gwinner, K.P. (2008), "Rapport-building behaviors used by retail employees", *Journal of Retailing*, Vol. 84 No. 3, pp. 308-324.
- Haugen, T.B. and Klungseth, N.J. (2017), "In-house or outsourcing FM services in the public sector: a review of 25 years research and development", *Journal of Facilities Management*, Vol. 15 No. 3.
- Hedman, J. and Kalling, T. (2003), "The business model concept: theoretical underpinnings and empirical illustrations", *European Journal of Information Systems*, Vol. 12 No. 1, pp. 49-59.
- Jensen, P.A. (2009), "The market for facilities management in Denmark", *Facilities*, Vol. 28 Nos 7/8, pp. 1-16.
- Jensen, P.A. (2011), The Market for Facilities Management in the Nordic Countries, CFM, Kongens Lyngby.
- Jensen, P.A. (2008), "The origin and constitution of facilities management as an integrated corporate function", *Facilities*, Vol. 26 Nos 13/14, pp. 490-500.
- Jensen, P.A. and Andersen, P.D. (2010), The FM Sector and Its Status in the Nordic Countries, CFM, Kongens Lyngby.
- Johnson, M.W., Christensen, C.M. and Kagermann, H. (2008), "Reinventing your business model", *Harvard Business Review*, Vol. 86 No. 12, pp. 50-59.
- Lee, A.S. and Baskerville, R.L. (2003), "Generalizing generalizability in information systems research", *Information Systems Research*, Vol. 14 No. 3, pp. 221-243.
- Lehrer, M., Ordanini, A., DeFillippi, R. and Miozzo, M. (2012), "Challenging the orthodoxy of value cocreation theory: a contingent view of co-production in design-intensive business services", *European Management Journal*, Vol. 30 No. 6, pp. 499-509.
- Mäkinen, S. and Seppänen, M. (2007), "Assessing business model concepts with taxonomical research criteria: a preliminary study", *Management Research News*, Vol. 30 No. 10, pp. 735-748.
- March, J.G. (1991), "Exploration and exploitation in organizational learning", *Cognitive Science*, Vol. 33 No. 3, pp. 530-541.
- Martins, L.L., Rindova, V.P. and Greenbaum, B.E. (2015), "Unlocking the hidden value of concepts: a cognitive approach to business model innovation", *Strategic Entrepreneurship Journal*, Vol. 9 No. 1, pp. 99-117.
- Morris, M., Schindehutte, M. and Allen, J. (2005), "The entrepreneur's business model: toward a unified perspective", *Journal of Business Research*, Vol. 58 No. 6, pp. 726-735.
- Nardelli, G. (2017), "Innovation dialectics: an extended process perspective on innovation in services", *The Service Industries Journal*, Vol. 37 No. 1, pp. 1-26.
- Nenonen, S. and Storbacka, K. (2010), "Business model design: conceptualizing networked value co-creation", *International Journal of Quality and Service Sciences*, Vol. 2 No. 1, pp. 43-59.
- Osterwalder, A. (2004), *The Business Model Ontology: A Proposition in a Design Science Approach*, Université de Lausanne, Lausanne.
- Pettigrew, A.M. (1997), "What is a processual analysis?", Scandinavian Journal of Management, Vol. 13 No. 4, pp. 337-348.
- Rasmussen, B., Andersen, P.D. and Jensen, P.A. (2012), Foresight on Facilities Management in the Nordic Countries: Proposal for a Common Research Agenda, Technical University of Denmark, Kongens Lyngby.
- Roper, K.O. (2017), "Facility management maturity and research", Journal of Facilities Management, Vol. 15 No. 3.

JFM 16,1

- Sosna, M., Trevinyo-Rodríguez, R.N. and Velamuri, S.R. (2010), "Business model innovation through trial-and-error learning: the naturhouse case", *Long Range Planning*, Vol. 43 Nos 2/3, pp. 383-407.
- Specht, N., Fichtel, S. and Meyer, A. (2007), "Perception and attribution of employees' effort and abilities: the impact on customer encounter satisfaction", *International Journal of Service Industry Management*, Vol. 18 No. 5, pp. 534-554.
- Spieth, P., Schneckenberg, D. and Ricart, J.E. (2014), "Business model innovation state of the art and future challenges for the field", *R&D Management*, Vol. 44 No. 3, pp. 237-247.
- Storbacka, K., Windahl, C., Nenonen, S. and Salonen, A. (2013), "Solution business models: transformation along four continua", *Industrial Marketing Management*, Vol. 42 No. 5, pp. 705-716.
- Svejenova, S., Planellas, M. and Vives, L. (2010), "An individual business model in the making: a chef's quest for creative freedom", *Long Range Planning*, Vol. 43 Nos 2/3, pp. 408-430.
- Teece, D.J. (2010), "Business models, business strategy and innovation", Long Range Planning, Vol. 43 Nos 2/3, pp. 172-194.
- Tikkanen, H., Lamberg, J.-A., Parvinen, P. and Kallunki, J.-P. (2005), "Managerial cognition, action and the business model of the firm", *Management Decision*, Vol. 43 No. 6, pp. 789-809.
- Tucker, M. and Aderiye, Y.O. (2016), "Cultural integration of external service provider employees into client workplaces", *Journal of Facilities Management*, Vol. 14 No. 4, pp. 363-384.
- Velu, C. (2015), "Business model innovation and third-party alliance on the survival of new firms", *Technovation*, Vol. 35, pp. 1-11.
- Weill, P. and Olson, M.H. (1989), "Managing investment in information technology: mini case examples and implications", MIS Quarterly, Vol. 13 No. 1, pp. 3-17.
- Willemstein, L., van der Valk, T. and Meeus, M.T.H. (2007), "Dynamics in business models: an empirical analysis of medical biotechnology firms in the Netherlands", *Technovation*, Vol. 27 No. 4, pp. 221-232.
- Wirtz, B.W., Pistoia, A., Ullrich, S. and Göttel, V. (2016), "Business models: origin, development and future research perspectives", *Long Range Planning*, Vol. 49 No. 1, pp. 36-54.
- Zott, C. and Amit, R. (2010), "Business model design: an activity system perspective", Long Range Planning, Vol. 43 Nos 2/3, pp. 216-226.

Corresponding author

Giulia Nardelli can be contacted at: ginar@dtu.dk

Facility