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De Toni A. F. (University of Udine)
Fornasier A. (University of Udine)
Montagner M. (University of Udine)

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OPEN FACILITY MANAGEMENT: A NEW APPROACH FOR THE IMPROVEMENT OF OUTSOURCED SERVICE INDUSTRY

Alberto F. De Toni, Andrea Fornasier, Mattia Montagner

Management Engineering Laboratory, Department of Electrical, Management and Mechanical Engineering, University of Udine, via delle Scienze 208 33100 Udine (UD), Italy
Email: detoni@uniud.it – Tel. +39 0432 558330
Email: andrea.fornasier@uniud.it – Tel. +39 0432 558043
Email: mattia.montagner@uniud.it – Tel. +39 0432 558043

ABSTRACT

The authors present a new model for facility management, which is called *Open Facility Management (OFM).* After more than two years of research on a global service contract in facility management, it appeared that the steadily changing customers' needs, together with contract strictness lead to a state of hidden conflict among the parties. The proposed model aims at overcoming such a conflict by adopting the principles of contract flexibility, actor coordination and shared performance measurement systems. These principles envisage the adoption of three operational tools, namely a flexible contract with service level agreement, a partnership table and a shared performance measurement system. The tools which support the principles are integrated in a management process that enables the parties to promptly react to the dynamic variables typical of facility management.

Keywords: Facility management, outsourced service industry, case study

INTRODUCTION

This study follows a two-year analysis carried out on a global service contract, which was signed by the Azienda per i Servizi Sanitari n.1 di Trieste (Trieste Medical Service Authority, ASS1, customer) and the Associazione Temporanea di Imprese (temporary joint enterprise, ATI, contractor). The Consorzio Nazionale Servizi (CNS), head of the ATI, is the sole institution in charge of the results deriving from the contract. The CNS entrusts 5 subcontracting companies (the service providers) with the provision of facility services.

The analysis revealed all the complexity of facility management. The major difficulty is to integrate varied services. Managing such a wide and complex range of services requires both specific skills and expertise and the ability to adapt to the dynamic variables of Facility Management (FM).

This paper is structured as follows: the first part shows the exposure of facility management to highly dynamic features which are opposite to the strict obligations of some contract types. Solutions to this conflict appear within the framework of a new model of facility management, which is presented later on. The model includes some operational tools, which are described in the second part of this paper, that are integrated and coordinated into the new process of facility management. The final part of the paper deals with limits and future developments for the model presented herein.

GLOBAL SERVICE CONTRACT ANALYSIS: CRITICALITIES ARISEN IN THE FACILITY MANAGEMENT

The analysis on the global service contract was conducted by means of structured interviews to the various business managers in charge of different functions and organizational levels, who operate in the ASS1, CNS and service providers. The findings confirmed the data available in literature (Alexander, 1996; Cotts and Lee, 1992; Barret, 1996; Nutt and McLennan, 2000), according to which facility management is extremely exposed to the following dynamic variables:

- change in the customers' needs;
- change in the final consumer' needs;
- higher service level required;
- evolution of the technological solutions;
- evolution of the organizational theories and management practices.

These variations require the parties to adjust not only the services provided but also their management. Nonetheless, the strict obligations included in some contracts narrow down the parties' field of action. In such conditions, on the one hand, the service is subject to changes in terms of needs, service levels and so forth, but, on the other hand, it is bound by static contract terms (see Figure 1).

As a matter of fact, the interviews highlighted a substantial gap between the real needs of the ASS1 and the activities envisaged by the global service contract (especially those concerning programmed maintenance) (De Toni *et al*., 2006b). According to the interviewees, the change in the services or the activation of new ones to adjust activities to the relevant needs is quite complex, due to the strict contract terms.

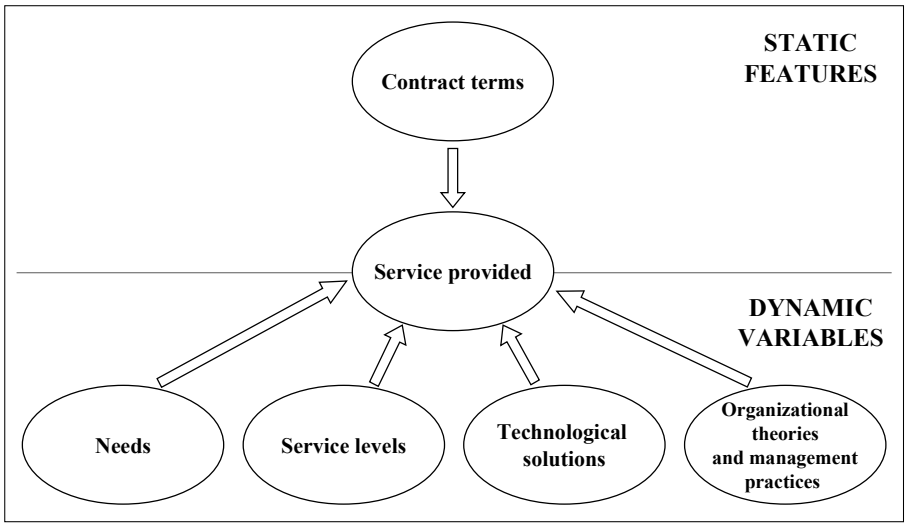

Figure 1 – Service provided between static features and dynamic variables

In opposition to the above indicated dynamic variables, the terms of the contract place strong restrictions on the service provision, since they limit the parties' field of action and prevent the customer, the contractor and service providers from managing services in a flexible manner.

A NEW PARADIGM: OPEN FACILITY MANAGEMENT

The above dynamic variables contribute to changes in the environment in which the customer, the contractor and service providers operate. However, according to McLennan (2004), no model has been devised yet to manage the dynamic variables of facility management. To align service provision with the environment changes, FM requires a flexible management approach able to

promptly meet the customer's and the final consumers' changing demands. This approach, called Open Facility Management (OFM), is structured as follows.

The Open Facility Management approach to service management is not very different from the traditional facility management approach as for the principles of services integration and contract liability. The OFM differs from the traditional approach in terms of contract flexibility, actor coordination and shared performance measurement systems (see Figure 2).

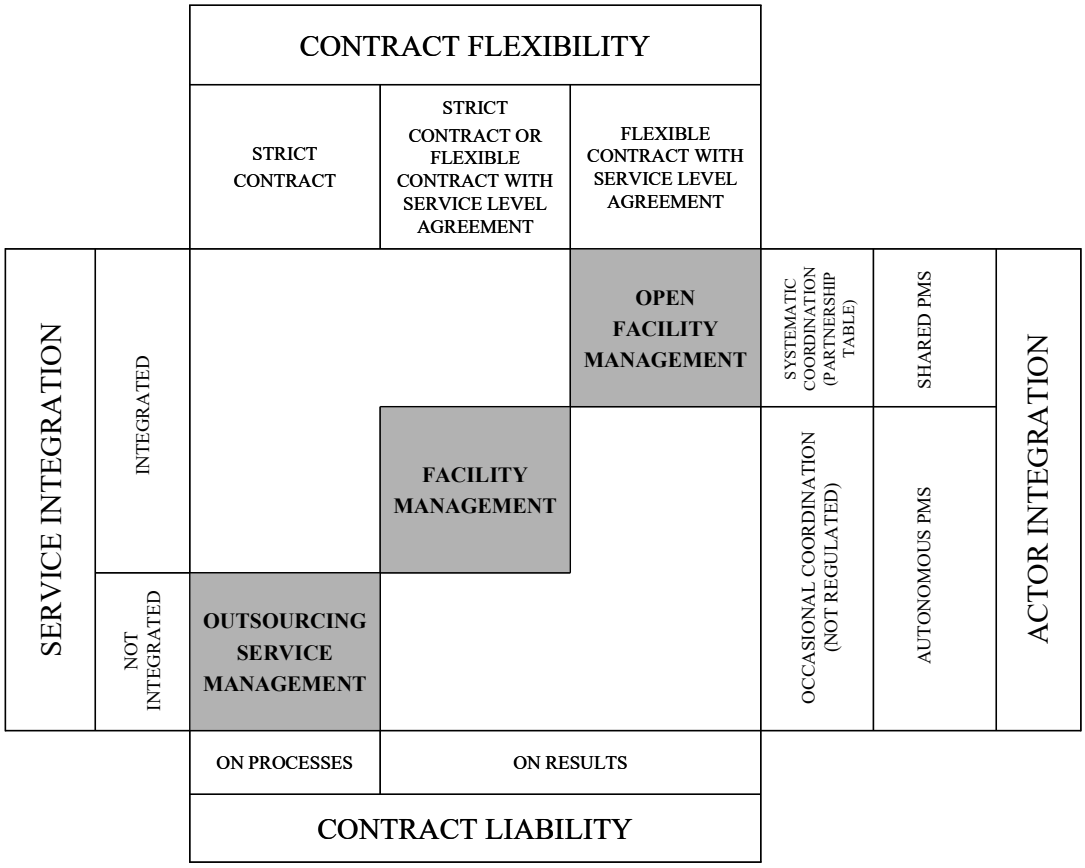

Figure 2 – Service management approaches for facility management

Basically, the OFM differs from the previous FM approach (see Table 1) in three principles. In the table hereunder, the three principles are paired up with specific tools which are described in detail later on in the paper.

Table 1 – Open Facility Management: principles and tools

PRINCIPLES		**TOOLS**
CONTRACT FLEXIBILITY		Flexible contract with service level agreement
ACTOR INTEGRATION	ACTOR COORDINATION	Partnership table
	SHARED PERFORMANCE MEASUREMENT SYSTEM	Shared performance measurement system

The openness concept in the open facility management

The Open Facility Management provides for a higher sensitivity by the parties to the existing and potential changes. Openness to the changes occurring in the facility management is the starting point for revising and improving the service management process. The new approach to service management owes its name to the openness concept (open).

The OFM approach is open not only to changes but also to the "new" actors who are not taken into consideration in the facility management approach. Opening to "new" actors means considering their needs and expertise as a good opportunity to revise and improve service management. On the contrary, the facility management approach considers only the needs and expertise coming from "classic" actors, such as the contractor, the customer, service providers and final consumers. It is clear that such an approach puts huge limits on service management. Indeed, assessing "classic" actors alone offers a limited view of the contract, in which solely FM variables are included. As a result, all the existing and future opportunities coming from the neighbouring environments are denied.

The Open Facility Management is also open to all those "new" actors who can substantially improve FM. Therefore, the OFM develops cooperation with new actors, such as universities, research centres, communities of interest and practice, consulting firms, etc. in order to enjoy their contribution and excellence experience.

COMPARISON BETWEEN FACILITY MANAGEMENT AND OPEN FACILITY MANAGEMENT: PRINCIPLES AND TOOLS

The Facility Management and the Open Facility Management approaches to service management present some major differences. In particular, FM differs from OFM in three principles (see Table 2):

1. contract flexibility;
2. actor coordination;
3. shared performance measurement systems.

Table 2 – Comparison between facility management and Open Facility Management

PRINCIPLES		**TOOLS**	
		FACILITY MANAGEMENT	**OPEN FACILITY MANAGEMENT**
CONTRACT FLEXIBILITY		• Strict contract • Flexible contract with service level agreement	Flexible contract with service level agreement
ACTOR INTEGRATION	ACTOR COORDINATION	Not regulated (occasional coordination)	Partnership table (systematic coordination)
	SHARED PERFORMANCE MEASUREMENT SYSTEM	Autonomous performance measurement system	Shared performance measurement system

Contract flexibility is the first comparison principle. The facility management approach does not provide clear definitions of the type of contract to be used, so that the parties can freely select the type which best suits their needs. On the contrary, the Open Facility Management views contract flexibility as the only way to keep up with the environment changes.

Actor coordination is the second principle for comparison. Although already adopted in facility management, actor coordination is not applied systematically. The Open Facility Management ensures systematic coordination, to make sure that cooperation not only prevents

the negative effects deriving from criticalities but also gives rise to a process of steady improvement in service management. The systematic discussion among the parties is called Partnership Table.

The shared performance measurement system (PMS) is the third and last comparison principle. In facility management the PMS is solely used by the customer or the contractor. Through the Open Facility Management a PMS shared by the parties is planned. This measurement system allows to collect in a single tool the fundamental indicators which help the customer and the contractor to assess the contract evolution.

The three principles are paired up with three tools. So, in the OFM you can find:

- flexible contract with service level agreement;
- partnership table;
- shared performance measurement system.

The above quoted OFM supporting tools are known as the "OFM pillars" and refer to three different areas (De Toni *et al.,* 2006a). In the juridical area, the flexible contract with service level agreement allows to overcome the limits imposed by strict contracts. In the organizational area, the partnership table allows to identify, discuss and solve the critical aspects in service management. Finally, the third area envisages the management aspects related to the assessment of the effectiveness and efficiency of the actions undertaken.

TOOLS ADOPTED IN THE OPEN FACILITY MANAGEMENT

Flexible contract with service level agreement

In the juridical area, a global service contract provides for two contract classes, i.e. strict and flexible contracts (with Service Level Agreement – SLA). In the facility management approach, the parties can freely select the contract class according to their needs, whereas in the Open Facility Management a flexible contract (with SLA) is preferentially used.

The parties follow the process hereunder to sign the contract (see Figure 3). The process will result in a strict contract if it ends with the tender assignment to one of the competitors. On the other hand, if the contract assignment is followed by a start-up phase and the definition of the service level agreement, the final outcome of the process will be a flexible contract.

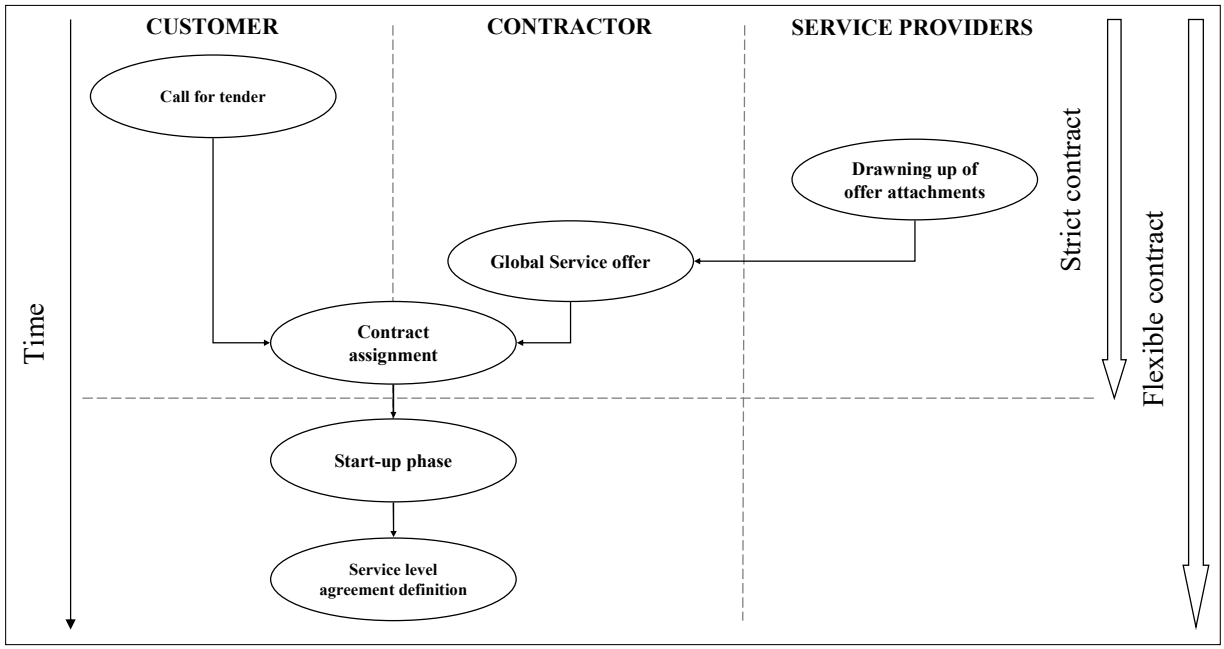

Figure 3 – Comparison between strict and flexible contracts

The service level agreement is a contract attachment that defines the scope and the assessment criteria for service quality, the penalties and related bonuses. SLA focuses on the results and not on the operational modes (Atkin and Brooks, 2000). Therefore, the effects triggered by service provision (service quality, effectiveness of provision, customer satisfaction, etc.) are given more attention than the process of service provision itself. Service level agreement identifies:

- the output agreed with the customer;
- the customer/contractor interfaces;
- the contractor's and service providers' liabilities.

Once the scope and assessment criteria for quality service are clearly defined, the SLA enables the parties to modify what follows:

- performances:
  - shift in the frequence of data recording;
  - variation in the agreed performance levels;
  - redefinition of the list of services measures;
- services:
  - variation in the service content;
  - need for new services.

As a result, flexible contracts enable the parties to modify the terms related to services and performances by adopting a service level agreement. In this manner, it is possible to increase the range of service options.

Shared performance measurement system

In the management area, the Open Facility Management tool is the performance measurement system shared by the contractor and the customer.

In literature, the PMS is used to assess the effectiveness and efficiency of the activities (Kaplan and Norton, 1996; Neely 1998). Performance measurement systems (see Table 3) are shared for several reasons, such as the monitoring of performances and the improvements in service management. The adoption of a shared performance measurement system gives the actors involved the opportunity to improve service levels and reinforce cooperation among them.

Table 3 – Shared performance measurement system advantages

ADVANTAGE	ADVANTAGE FOR CONTRACTOR	ADVANTAGE FOR CUSTOMER
Monitoring	Assess operation efficacy	
		Verify if contract requirements are satisfied
Continuous improvement	Organizational learning	
	Verify the progress made	
	Make sure that the decision-making process is supported by reliable data	
	Involvement/encouragement of lower organization levels	
	Unveil inefficiencies in key processes	

The shared performance measurement system, which was designed for the global service contract analyzed in this study, was called Facility Management Balanced Scorecard (FMBSC), as it follows the same structure and principles adopted in the Balanced Scorecard (Kaplan and Norton, 1992). The choice of building the shared PMS on the BSC structure was made after carefully reviewing the measurement systems used in facility management (De Toni *et al.*, 2007). The BSC was found to be the most adequate PMS for facility management (Coronel and Evans, 1999;

Amaratunga and Baldry, 2000; Amaratunga *et al.*, 2000; Amaratunga *et al.*, 2002; Brakertz and Kenley, 2002).

The partnership table

The so-called Partnership Table is the distinguishing tool for the Open Facility Management within the organizational area.

According to the traditional *outsorcing* concept (related both to the service and manufacturing sector), the prerequisite for the contract's success is the ability by the parties to draw up a contract which is able to meet the parties' needs. Nevertheless contracts cannot generally follow the external dynamic variables (Lee, 1996).

The main difficulties lie in the correct anticipation and quantification of all the potential circumstances which may occur during the life of a contract. As a matter of fact, it is hard to predict every kind of situation and to suggest the parties how to react accordingly (Hart and Moore, 1988; Teece, 1986).

Sometimes, parties themselves do not want contracts to be too accurate, due to the high expenses related to the introduction of new clauses (Shavell, 1984). "Contract incompleteness" is to be viewed as a structural element in the parties' relations. It is far too expensive and unfeasible to envisage all potential variables which can affect a contract. As a result, parties usually define and sign contracts which appear to be extremely incomplete.

The observations made up to now also apply to facility management and the global service contract analyzed herein is extremely representative in this respect. To overcome the criticalities which typically affect long and complex contracts, such as those adopted for facility management, parties are suggested to meet and discuss systematically.

The customer-contractor relationship can take many shapes (De Toni *et al*., 1994). However, although all such typologies of relationship are feasible, in the case of long and complex contracts (as in the case of facility management) the parties should turn to a joint design (or re-design) of products/services, namely the so-called partnership relationships. As a matter of fact, the frequent lack of partnerships in facility management often prevents customers and contractors to discuss problems in a constructive way. For instance, they often come into conflict when it comes to expenses and service inefficiency.

The partnership table acts as a driving force in the organizational area and fosters cooperation between customer and contractor. Indeed, it is a discussion place where information about services, service levels (related to the service level agreement) and the technical, managerial and organizational contract issues is exchanged. Furthermore, at the partnership table the information is dealt with:

- shared performance measurement system;
- dynamic variables related to facility management.

The information is used by the partnership table to assess the contract and possibly intervene to solve criticalities through the shared design (or re-design) of products/services.

The prior definition of a few essential elements is a prerequisite in the management of the partnership table. In particular, two elements must be specified from the very beginning, participants and time span between meetings.

The partnership table was implemented in the case study analized and made official through a resolution signed by the parties. Hereunder follow the required elements agreed by the parties.

1. Participants

Discussions are attended by permanent members, some of whom are appointed by the customer and some by the contractor. Five permanent members sit at the partnership table:

- a coordinator (who acts as an unbiased moderator) appointed by the customer's general manager;
- two representatives appointed by the customer;

- two representatives appointed by the contractor.

It can happen that the parties invite some specialists (i.e. managers of the service providers, final consumer, consultants, etc.) to the partnership table. According to their skills, specialists attend meetings where topics relate to their specific field of expertise. Their contribution is crucial to settle social and cultural disputes and to also improve service management. The parties established that the actors sitting at the table are not allowed to vote.

2. Time span between meetings

The table meetings are not held regularly; on the contrary, they are arranged by the parties in a flexible way. The partnership table is convened solely when services needs to be revised and improved. At present, the partnership table is usually convened once a month on the coordinator's request.

THE OPEN FACILITY MANAGEMENT PROCESS

A service management process in which the parties meet and discuss problems on a regular basis is put forward as a means to overcome the typical criticalities of facility management. With the help of adequate tools, discussion should help to clarify problems and find the right solution.

In facility management, solely flexible contracts (with Service Level Agreement, SLA) allow for a systematic discussion between the customer and the contractor. Although not frequently used, flexible contracts with SLA are feasible; however, they are not the norm in the existing global service contracts. As a result, in facility management solely flexible contracts with SLA ("as is" situation, see Figure 4) can support a management process based on discussion.

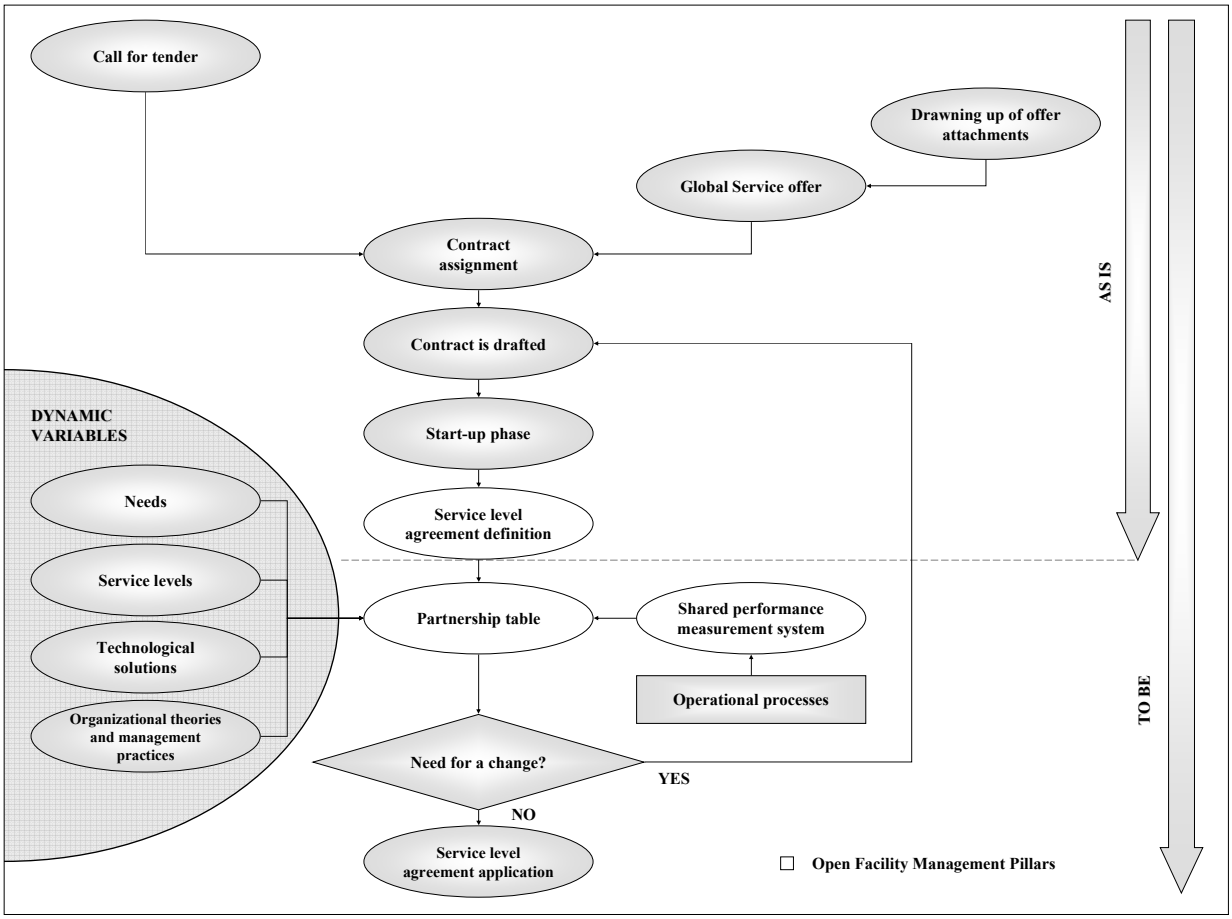

Figure 4 – Facility Management (as is) and Open Facility Management (to be)

On the contrary, in the Open Facility Management three tools support discussion. They are integrated in a new management process ("to be" situation, see Figure 4), which goes beyond the traditional facility management approach.

Beside flexible contracts with SLA, which are dealt with in juridical area, the OFM envisages two other areas, namely the organizational and management areas. These areas envisage two tools: the partnership table and the shared PMS, respectively. The information obtained through flexible contracts with SLA is discussed at the partnership table, together with the information gathered through the shared PMS and the FM dynamic variables.

At the partnership table, participants take advantage of this information, discuss the problems arising during the life of the contract and look for a joint solution.

After discussion at the partnership table, participants may decide to apply service level agreement conditions, i.e. bonuses or penalties, or to revise the terms of the contract (performance levels or service re-design).

Through this management process, the Open Facility Management enables the customer and the contractor to promptly react to the dynamic variables of facility management. The OFM envisages the integration of adequate tools to support the principles of contract flexibility, actor coordination and shared performance measurement systems.

CONCLUSIONS

In this paper some ground-breaking solutions to the structural problems affecting facility management were put forward. The continuous variations in facility management bring the customer, contractor and service providers, who are bound by strict contract obligations, to a state of hidden conflict which threatens explosion. The juridical solution to these problems represented by flexible contracts does not suffice.

As a result, flexible contracts are supported by two other operational tools, i.e. the partnership table and the shared performance measurement system, which belong to the organizational and management area, respectively.

The so-called Open Facility Management envisages the joint adoption of the above quoted tools. The model is based on the concept of openness to both changes in facility management and to "new" actors who differ from the traditional facility management actors.

Openness is the basic difference between OFM and facility management. Open Facility Management includes three principles, area and tools, respectively:

1. Principle: contract flexibility.
   Area: juridical.
   Tool: flexible contract with Service Level Agreement (SLA).
2. Principle: actor coordination.
   Area: organizational.
   Tool: partnership table.
3. Principle: shared performance measurement systems.
   Area: management.
   Tool: shared performance measurement system.

The three tools are integrated in a service management process which enables the parties to jointly discuss problems arising from time to time and to jointly look for the most relevant solution.

At present, the Open Facility Management model was solely implemented for the global service contract signed between the ASS1 and the ATI in Trieste. The limited use of OFM is the major limit to research; however, the interest raised by the model and the excellent results obtained within this contract are among the reasons why the CNS is planning to implement OFM in other global service contracts, too. The adoption of the model in other facility management contracts will help to make it universal.

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