13. ADDING VALUE BY FM AND CREM IN DUTCH HOSPITALS

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ABSTRACT

Purpose: To explore if and how Dutch hospital managers steer on adding value by well-considered Facility Management (FM) and Corporate Real Estate Management (CREM), which values are leading, and how adding value is being translated into concrete interventions.
Methodology: In addition to a review of literature, eighteen interviews have been conducted with facility managers, CEO and project managers of Dutch hospitals. Questions include: What are the main issues in your mission statement? How are these issues connected to FM and CREM? Which values are most important? Which FM and CREM measures are taken in order to attain your organisational objectives?
Findings: The research resulted in a list of eleven possible added values. Hospitals showed to prioritize different values, depending on their overall mission and vision, its position in the real estate life cycle, and the local context. Regarding FM, satisfaction, productivity, and cost reduction were most frequently included in the top 3 of most important values, whereas with regard to real estate, stimulating innovation, improving satisfaction of customers and employees, and supporting (change of) culture ranked highest.
Practical implications: The responses from directors and FM and CREM managers from different hospitals may be used as an inspiring reference frame for integrated and well-balanced decision making, based on awareness of different ways how to add value by FM and CREM.
Research limitations: A number of 18 interviews of 1–1.5 hours with additional information from websites and annual reports is a good start, but additional information is needed to get a more complete picture and to measure actual effects of FM and CREM in connection to organisational objectives and expected effects of FM and real estate interventions.
Originality/value: Research into adding value by FM and CREM in the health care sector is quite new and shows to be promising for a further exploration of adding value management.

Keywords: FM, CREM, Added Value, Priorities, Hospitals.

INTRODUCTION

The purpose of this chapter is to explore the concept of adding value by Facility Management (FM) and Corporate Real Estate Management (CREM), and the way it is or could be applied in value-based briefing, design and management of hospital buildings and building related facilities and services. The main reason to conduct this research in hospitals is the rapidly changing political, juridical and financial context of Dutch hospital design and management. In the last

decade the Dutch government transformed the old budgetary system into a so-called regulated market system. In the former system the proposal for a new hospital building or renovation of an existing building had to be approved by the government to fit with the planning regulations (number of beds per 10,000 inhabitants), space criteria (maximum number of square meters per bed, functional performance requirements per function), and cost regulations (maximum budget for investment costs per square meter). After approval all building related capital costs and running costs were guaranteed by the government and paid by the insurance companies during the life-time of the building, independent of healthcare production. In order to stimulate competition and reduce healthcare costs, this former budget system is being replaced by a regulated market system. Not the government but the healthcare organisations will be responsible for a sufficient return on real estate investment – by proceeds from health care delivery. So a growing awareness and understanding is needed of the consequences of CREM and FM decisions on utility value, investment costs and running costs, future value, and organisational performance. Benefits such as creating a healing environment, improving employee satisfaction, or supporting labour productivity have to be weighed against the impact of CREM and FM decisions on the costs of health care delivery and life cycle costs of the building and other facilities.

Within this context a study has been conducted to explore answers on three questions: a) (How) do hospital managers i.e. the CEO, real estate project managers and facility managers, take into account adding value by FM and CREM in hospital real estate design and management? b) What are present priorities in value based design and management of hospital buildings? c) Which choices regarding the accommodation and building related facilities are guided by adding value?

In part A and B of this book, several authors reflected on the concept of added value of FM. Before starting with the description of our research methods and research findings, some additional reflections are given, in connection to FM and CREM and other disciplines.

ADDING VALUE BY FM AND CREM: A CONCEPTUAL ANALYSIS

Whereas FM focuses on *"the agreed services which support and improve the effectiveness of its primary activities"* (CEN, 2006), the focus of CREM is on *"the alignment of the real estate portfolio of a corporation or public authority to the needs of the core business, in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the organisation"* (Dewulf et al., 2000, see also chapter 11). According to this definition, to obtain 'added value" and to contribute to the 'overall performance' of the organisation are key objectives of CREM. Based on 20 in-depth interviews with leading-edge brand experts, De Chernatony and Harris (2000) proposed that "Added value is a multidimensional construct which includes functional and emotional benefits, as perceived by consumers, relative to the competition; these often also result in benefits for the firm." Other definitions of 'value' and 'added

value' relate changes in the output or outcome to changes in the input in a certain period of time. For instance, in pricing literature, 'value' is usually defined as the trade-off between the customers' perceptions of benefits received and sacrifices incurred (Lezinski and Marn, 1997):

Value = Benefits – Sacrifices as perceived by customers

Sacrifices are often linked to financial costs but can also include non-monetary factors such as time and effort (De Chernatony and Harris, 2000). Van Wagenberg (2009), a former professor in FM, used a similar definition and defined value added as: "the difference between the value of the product/services delivered to a client during a period (value of output(s) in period Δ t1 – t2) and the value of the input(s) in the production function - or functions in the case of a supply chain - in the same period Δ t1 – t2".

In consumer behaviour, 'value' is defined in terms of customer needs or the mental image or cognitive representations of underlying customers' needs and goals (Peter and Olsen, 1987). Woodruff (1997) extends the demand side to all stakeholders, and defines customer value as "stakeholders' perceived preference for, and evaluation of, a product or service and consequences arising from use of a facility, in achieving stakeholders' goals and purposes in use situations". This definition comes close to what has been said in the Real Estate Lexicon (Keeris, 1997): real estate value refers to "the stakeholders' (subjective) appreciation of achieving the stakeholders' goals and purposes".

In CREM literature, different values of real estate are mentioned, e.g. shareholder value, balance sheet value, investment value, commercial value, economical value, functional value, historical investment value, market value and reconstruction value. De Vries et al. (2004) make a distinction between tangible and intangible values and financial (monetary) versus non-financial values. A tangible value refers to physical objects; intangible values are values that are represented by real estate. An example of an intangible non-financial value is the symbolic value of real estate for a certain user, e.g. to what extent the appearance of a building represents the mission and vision of the organisation (De Vries et al., 2004). Intangible values are more difficult to measure. Financial values are strongly affected by market conditions, whereas non-financial values are related to the needs and appraisal of clients, customers and end-users.

Regarding FM and CREM decision making, the question comes up which particular values are included in connection to the goals and objectives of different stakeholders.

METHODOLOGY

In addition to a literature review, empirical data have been collected by interviewing five CEOs, five real estate project managers and eight facility managers of 16 different hospitals in the Netherlands. Two hospitals were interviewed both with regard to adding value by CREM and

FM. The eight FM interviews have been conducted by the second author, as part of her final thesis at the Rotterdam University of Applied Sciences, Department of Facility Management (Prevosth, 2011). The ten CREM interviews have been conducted as part of a current PhD research of the third author, focusing on hospital real estate strategies in a changing context (Van der Zwart et al. 2009; Van der Zwart, 2011). Both students were supervised by the first author. In advance, available information and documents on the internet were studied in order to get a first impression of the hospital, its mission and vision, and main real estate objectives.

The CREM interviews were conducted in hospitals that were recently built or currently are in the construction phase (period 2004 – 2012). Out of a list of 20 hospitals a selection was made based on heterogeneity with regard to: 1) type (general, top clinical and academic hospitals); 2) size (number of beds); 3) building phase (initiation, design, construction, use). The FM interviews were all conducted in the Randstad, two of them in the same hospitals as the CREM interviews. The Randstad is the area surrounded by the four largest cities in the Netherlands. Here, too, heterogeneity was attained with regard to type and size. The selection resulted in a total sample with 5 general hospitals, 8 top clinical hospitals and 5 academic hospitals, ranging from small (less than 300 beds, N=3) to medium sized (300-500 beds, N= 4), large (500-1.000 beds, N = 6) and very large hospitals (over 1,000 beds, N=5, all academic hospitals). The heterogeneity makes it possible to explore if type and size of hospitals affect (priorities in) value added management.

The researchers that conducted the CREM interviews and FM interviews came from different schools and used different pictograms to visualize various added values.

The semi-structured FM-interviews were focussed on the FM-organisation (position in the overall organisational structure, internal structure, and strategy), if and how eleven added values of FM found in literature and shown in Table 13.1 are taking into account in FM decisions (ambitions, expectations, measures, measurement), and future expectations.

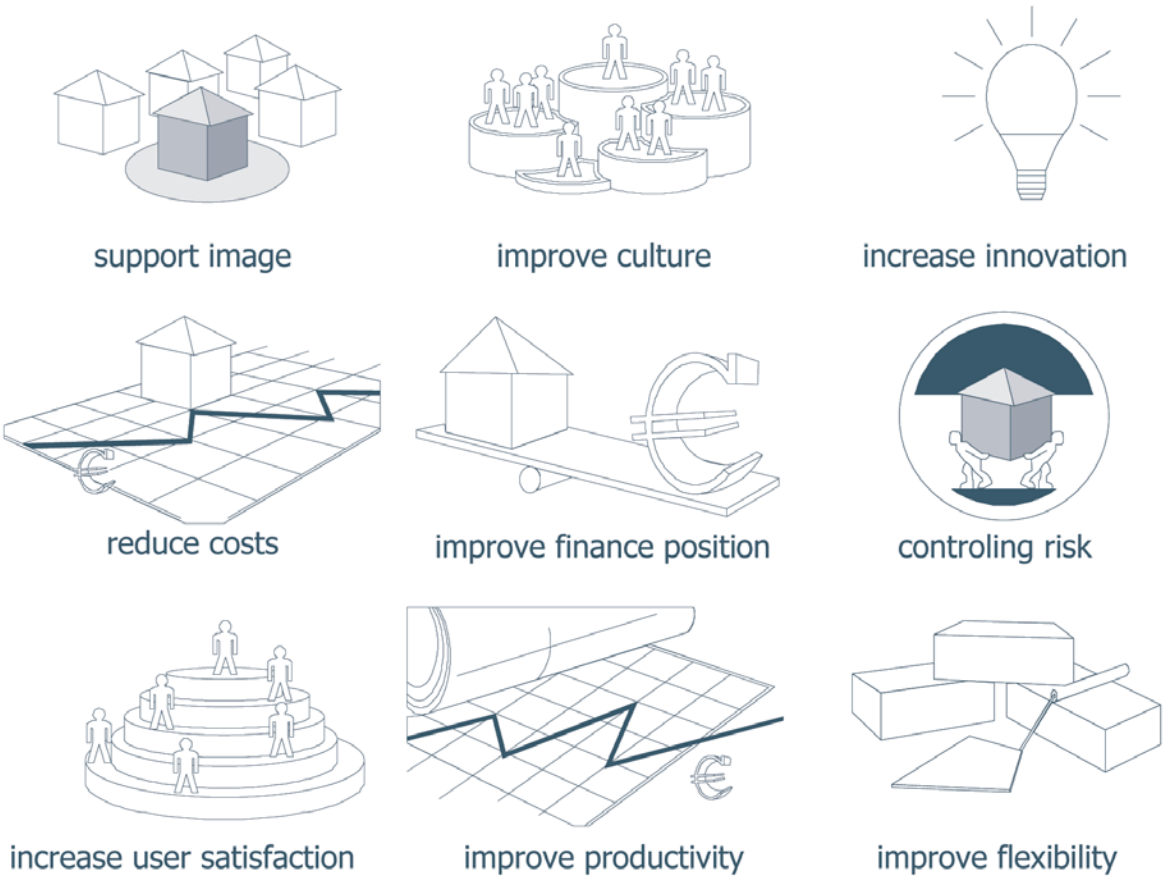
The CREM-interviews consisted of two parts: an open interview where respondents were asked which values are taken into account in real estate decisions, and a structured interview where respondents were asked to prioritize nine added values found in the literature and shown in Figure 13.1. This list builds on the work of Nourse and Roulac (1993), De Jonge (2002), Lindholm and Levainen (2006), Lindholm (2008), De Vries et al. (2008) and Jensen (2010). “Sustainability” and “Healing Environment” were not included in this list, partly because these values were not included in this literature as well, the former also because sustainability was expected to be a prerequisite and not a particular issue of adding value management, the latter also because this item was expected to be integrated in “satisfaction” and “productivity”. The values spontaneously mentioned in the first part of the interviews may be indicators of managers’ awareness of possibilities to add value by real estate. In the second part of the interviews the nine added values derived from literature were presented on little cards in a 3x3 matrix. The ranking of added values occurred in three steps. First respondents were asked to prioritize

the three added values in each row. Second, respondents were asked to rank the three added values per column on least importance. These two steps made the respondents familiar with the added values used in literature, in order to be able to prioritize all of them in the third step. After this ranking assignment, the respondents were asked how these added values are visible in the (design of the) hospital building.

Table 13.1: Visualisation of eleven fields of adding value by FM in the FM part of the research

	Reduction of real estate costs during the life cycle (investment costs, operational costs) by steering on efficient space use and smart design.
	Improvement of (labour) productivity, e.g. by supporting logistics of primary processes and short walking distances between related functions.
	Improvement of user satisfaction by steering on a functional, comfortable and pleasant working environment, taking into account user needs and preferences.
	Improvement of possibilities to get real estate financed by external parties, e.g. by regarding real estate as an asset to improve the overall finance position of the organisation or an assessment of the (future) marketability of the building. Value creation can be a particular ambition here.
	Improvement of flexibility to enable future spatial, technical, organisational or juridical adaptability, e.g. by standardization, simple opportunities to extend the building or easy adaptability to other functions.
	Support of a positive corporate image, e.g. by a nice overall building appearance and an appropriate building lay-out.
	Stimulation of innovations in order to improve business processes, e.g. by creating formal and informal meeting space to exchange ideas
	Supporting (change of) corporate culture, e.g. by sharing work spaces to support social interaction.
	Risk management with regard to time, costs, health and safety, and coping with a changing context, e.g. technically by application of strict safety standards or juridical by short term rent contracts.
	Sustainability, e.g. by application of energy saving measures or application of environmentally friendly materials.
	Creating a healing environment, e.g. by taking care for sufficient daylight, a healthy indoor climate, and lots of greenery.

Figure 13.1: Visualization of nine added values of real estate in the CREM part of the research



FINDINGS

First we will summarize the responses to the open question on main objectives of FM and real estate investment decisions. Second we present the prioritized values, reduced to the top 3 of most important added values per interview. Third, concrete measures will be presented of adding value by FM and CREM that came out of the interviews.

VALUE BASED FM AND CREM OF HOSPITALS

The first priority of hospitals is to deliver good healthcare in a cost-efficient way. Real estate and other facilities are secondary but at the same time perceived as important resources to reach the organisational objectives and to optimally facilitate healthcare processes. On the one hand the building aims to support patient's needs and wellbeing. On the other hand the building should be a pleasant and productive working environment for the healthcare professional. Regarding the accommodation, supporting efficient healthcare processes showed to be a core issue. Much attention is being paid to efficient logistics of patients, healthcare processes and transport of people and goods. In spite of the widely used motto "the patient is central", most

hospitals focus on efficient healthcare processes. Apart from economic reasons, the assumption is that optimal health care processes also benefit patients and supports both customer satisfaction, labour productivity and employee satisfaction.

CEO of Deventer Hospital, Deventer
The building should facilitate the healthcare processes in such a way that the building meets the organisation's objectives on the first day the hospital opens its doors. Besides, the building must be flexible in order to support business processes for a period of 40 years and to be able to cope with changing visions on healthcare delivery.

Furthermore most cases showed a connection between the organisational strategy and the real estate and FM strategy. Often organisational objectives such as transparency and appropriate healthcare are translated in the architecture of the building. But a strict translation of the organisational mission, vision and ambitions in architecture was also mentioned to be difficult because of the long planning and construction time – often 10 to 15 years - and 40 years of exploitation afterwards. In the meantime the organisation will change its management structure and style, objectives, vision on optimal organisation of healthcare processes etc. several times Therefore, flexibility was often mentioned as an important objective in real estate management. Flexibility should enable the hospital building to support the healthcare processes at least 40 years in changing circumstances.

Real Estate manager Meander Medical Centre, Amersfoort
Flexibility is realized by expandability, adaptability and exchangeability of rooms. The central building is divided into three parts: 1) a hot floor with all high technical functions; 2) nurseries with standard one-person bedrooms, and; 3) multifunctional examination rooms, all with different technical installations and constructions and different access to patients.

Because of the new financing system that makes payment of investment and running costs dependent of the production in terms of diagnosis-treatment combinations, the usual starting point is very business-like: no more square meters than necessary and life cycle costs as low as possible. The hospitals that initiated a new building after the introduction of the new regulation showed a shift of directing on maximum capacity and quality towards steering on less capital expenses and increasing productivity. These hospitals are designed and constructed on the basis of a business case and pay much attention to create a compact building (with a little surplus square meters to enable future production growth), low capital costs and a high level of flexibility. Slim fit buildings are accompanied with extendibility in the future. These extensions are subject of a new business case to be presented to financiers.

CEO of Gelre Hospital, Zutphen
Because the building had to be financed on own risk, reimbursed by healthcare production, the business plan is directed on capital costs as low as possible. This is accomplished with a cheap, functional and lean building with little surplus square meters and a focus on flexibility to anticipate on future alterations.

Since the introduction of the regulated market system, a growing awareness of the market position of the hospitals becomes visible. Most hospitals are part of a larger network with one central location with all complicated top clinical healthcare combined, and several day care hospitals and policlinics in the region.

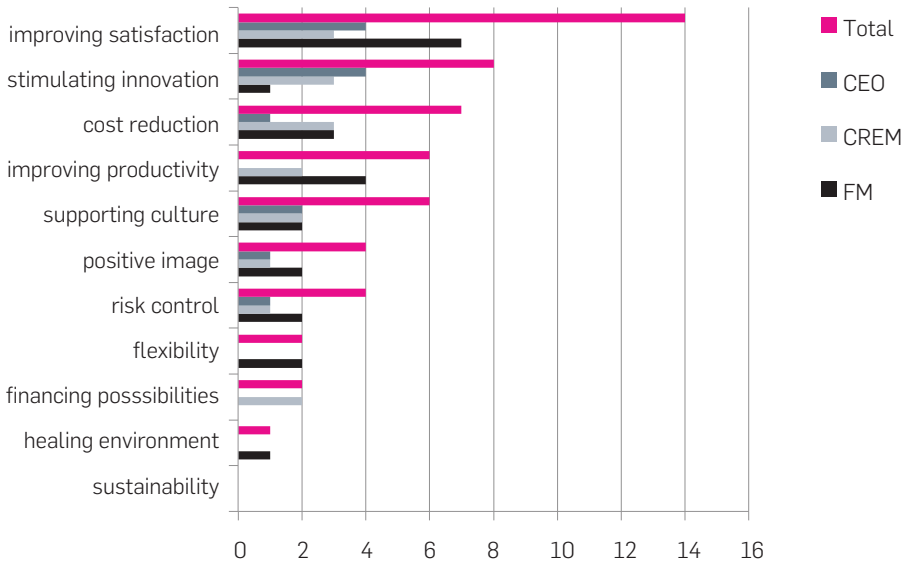
PRIORITIES IN ADDING VALUE MANAGEMENT

The request for prioritizing added values of FM and real estate produced a huge variety of responses. Quite often facility managers ranked "improvement of customer satisfaction", "increasing productivity" and "cost reduction" as one of the three most important values, whereas "supporting innovation", "increasing user satisfaction" and "improving organisational culture" were often given highest priority by CEO's and real estate managers as shown in Figure 13.2. Cost reduction was highly prioritized by four real estate respondents, but ranked as not that important by five other hospitals. Risk control and increasing financing possibilities were usually given low priority. Increasing productivity, optimizing flexibility and supporting corporate image were prioritized in between. One hospital ranked the prioritized added values almost opposite to most other answers. This hospital is currently planning a new hospital according to the so-called living building concept (LBC), a new form of Public Private Initiative.

ACCOMMODATION CHOICES SUPPORTING ADDING VALUE OF FM AND CREM

When hospital managers were asked to elaborate on the connections between real estate characteristics and organisational performance, different answers came up. But the responses had also much in common. The overall picture can be summarized as follows.

Figure 13.2: Number of respondents marking the value in the top 3 of most important values



RE/PM = real estate/project manager; FM = facility manager;

'healing environment' and 'sustainability' were only included in the FM interviews

1. Improving satisfaction

This added value may be split up in satisfaction of visitors, patients and employees. Most respondents emphasized that good staff, i.e. people with excellent medical skills and a customer-friendly attitude and behaviour are of utmost importance. Well considered real estate and FM decisions can be supportive as well, e.g. by:

- Creating a pleasant and safe "healing" environment where people feel at home: easily accessible, a clear structure so that people can find their way easily, much daylight, nice outside view, contact with nature, attractive indoor climate, sufficient privacy, facilities for social interaction, autonomy and freedom of choice, and a high quality of semi-public spaces such as entrance halls, waiting areas and patios (Kreitzer and Zborowsky, 2009; Dijkstra, 2009). These issues also support hospitality i.e. the feeling of being generously welcomed by friendly staff in a nice environment (Prevosth and Van der Voordt, 2011).
- Adequate parking facilities.
- Optimally facilitating medical care processes by steering on a lay-out that fits with the needs of patients (e.g. one-stop consultations by concentrating consultation activities on one spot instead of patients looking for doctors on different spots on different times).
- ICT-facilities (flat screens for watching TV/ information, internet) and catering services.
- Well organised communication and user participation in decision making processes including satisfaction surveys.
- Well considered floor management.

2. Stimulating innovations

Innovation requires individual creativity and team creativity. Creative thinking is being facilitated by opportunities to relax and to concentrate and places that support exchange of knowledge and stimulate new ideas. Most hospitals create meeting places such as a knowledge centre, study centre, or skills lab. Another option is the spatial integration of different types of cure and care, but the present financing system with separate money streams is mentioned to be an obstacle here. ICT is also used as a tool to innovating processes, e.g. by the use of information devices or application of a digital system to reduce waiting times. Medical-technical innovations may affect real estate as well, for instance by changing space requirements due to remote care, E-consults and new medical equipment.

3. Cost reduction

Due to an ever growing demand for health care and a shortage of financial resources, hospital managers pay much attention to cost effectiveness and opportunities to reduce real estate costs. Since the introduction of the regulated market system directing on the reduction of life cycle costs and total costs of ownership has become more important. Elaborating a business case to make costs and benefits transparent in the short and long run is normal practice now. Real estate measures to stimulate cost reduction include co-operation in building, design and management of hospital real estate with other care organisations and commercial parties, new ways of contracting such as Design and Build, or DBFMO (Design-Build-Finance-Maintain-

Operate), strict space budgeting, and standardisation of spaces to reduce costs of adaptation in case of changing functions. Quite often extra investments are needed to reduce the life cycle costs of the building (e.g. investing in flexibility) or staff costs (e.g. extra lifts to reduce walking distances). CREM/FM oriented measures include space reduction by shared workplaces and extension of opening hours, sustainability measures in order to reduce energy consumption, and digitalization of information. FM measures include a check of service level agreements on cost effectiveness, optimization of work processes, and outsourcing.

Facility Manager of the Amsterdam Academic Hospital
We used to deliver 25 different meals that all had to be in stock. Based on Lean Six Sigma we changed our catering system to deliver more healthy food in a more efficient and cost effective way, e.g. by improving our logistics and stock control.

4. Improving productivity
This added value is usually interpreted as production (output) and less as a ratio between output and input. FM and CREM choices to support production included:

- Optimally facilitating of medical care processes and supporting activities, e.g. by spatial clustering of top-clinical care processes, urgent care, patients with acute diseases and patients with chronic illnesses, or a thematic clustering of heart diseases and vascular diseases, oncology, mother and child.
- Well considered location of operation theatres.
- Location of units with a high flow rate near the entrance to avoid unnecessary patients flows within the building.
- Sound logistics of transport (beds, bedclothes, food, medical facilities) by a separation of transport of goods and patient flows, and use of advanced transport systems.
- Easy and place and time independent access to (digital) data.
- Extension of opening hours and operating time.
- An attractive indoor climate and indoor air quality in order to avoid absence by building related sickness ("Sick Building Syndrome").
- Smart use of electronics and ICT to support medical processes and information flows ('home electronics', robots, smart phones, iPhone).
- Redesign of the FM organisation directed to efficient workflows and consultative structures.

The impact of one bed rooms on labour productivity is a little ambivalent. On the one hand one bed rooms evoke fewer infections and speed up the healing process that might shorten the average stay in hospitals. It also avoids problems of empty beds due to difficulties in mixing people with different cultural backgrounds or different gender. On the other hand a high percentage of one bed rooms can be counterproductive because of nurses have less overview and because of longer walking distances. Furthermore, single bedrooms require more space and increase both investment costs and capital costs.

5. Supporting culture
Though culture is merely a matter of shared values and behavioural rules focusing on high quality care, reliability and customer-friendly behaviour, (changing) culture can also be supported by the building and other facilities. Managers promote to create more openness and informal meeting facilities, facility sharing and hot-desking, in order to stimulate communication and to make different ways of behaviour or different attitudes a subject of open discussion. Another option is to create a front-back office with a different atmosphere. Organisational measures include training in leadership and organising activities to support or to express a coherent corporate culture.

6. Positive image
Marketing by real estate and other facilities is merely managed by steering on a nice and easy to access location in a lively and safe environment, a nice overall appearance, an attractive "healing" environment with a high percentage of one bed rooms, nice colours and materials, and nice facilities, see Figure 13.3, in order to improve patient satisfaction and as a consequence to improve competitive advantage. Attractive and professional staff facilities may help to attract and retain staff people. Quite often semi-public spaces – in particular in or near the entrance area - are open for use by people from outside, to reduce the image of an inner directed medical environment. Some respondents emphasized that a hospital should primarily focus on its patients by creating an environment "where it is allowed to be a patient" and not feeling awkward when walking in pyjama with a drip at hand. FM measures to improve the "corporate image" included a clear house style, well considered marketing, hospitality management, training in customer-friendly attitudes and behaviour, use of art, showing commitment with the neighbourhood or city and cooperation with external parties that evoke positive feelings among the community.

7. Risk control
This added value is mainly managed by real estate choices improving flexibility and marketability, a well elaborated business case, outsourcing of maintenance for a long period, and reduction of risks of infections by smart hygiene measures and more one bed rooms. FM measures to reduce risks included regular checks on health, safety and hygiene, setting up a system of corporate assistance in case of emergencies or medical injury of staff, an annual inventory and evaluation of (potential) risks regarding health and safety, appointment of a risk manager, etc. Quite often risk analyses are based on national or international standards and linked to accreditation systems such as the JCI accreditation (Joint Commission International).

8. Flexibility
Flexibility has been a key issue in hospital design for decades. All respondents include flexibility in their real estate policy and facility management. Standardization, multifunctional use of space, a clear separation between the supporting structure and fill-in because of their different life cycles, extra power of load-bearing walls and floors in order to cope with future functions, easy-to-adapt bed rooms (from a two bed room in two one bed rooms and vice versa), facilities that make an enlargement of the building easily possible, all kind of measurements are more

**Figure 13.3: Left: Ground floor of the Rotterdam IJsselland hospital, a semi-public area with catering facilities and a flower shop.
Right: Grand cafe in the Albert Schweitzer hospital in Dordrecht.**

or less common sense nowadays. Space and desk sharing in a non-territorial environment and organisational measures such as flexible work times function profiles that support exchange of different tasks are more and more common as well. A rather recent concept is the functional zoning plan. By spatial separation of the hot floor (high tech facilities such as the operation theatres), the fabric (labs), the hotel function (bedrooms) and office activities, hospitals aim to make part of their buildings more standard and as such easier marketable when the hospital want to shrink or to move to another place. One hospital built the hot floor in a special zone and left the adjacent space vacant, so that in case of the hot floor becomes outdated a new one can be added easily while the present keeps going during construction. Remarkably, thinking in scenarios in search for spatial and financial implications of future developments is not very common yet.

9. Financing possibilities

This added value is being stimulated by the involvement of external parties that rent space in the building or on a so-called healthcare boulevard or health park, leading to a profitable business case. Other options are Public Private Partnerships in owning the building, and steering on future value of the building by adaptability, marketability and maintenance management. Academic hospitals seem to have fewer problems in financing their real estate because they still get a separate budget for real estate investments and they can borrow money at a quite low interest rate.

10. Healing environment

In the interviews with CEO and project managers this issue was not discussed as a particular added value but as a component of satisfaction and productivity (see the discussion of these issues earlier). FM interviewees emphasized the importance of one bed rooms, freedom of choice with regard to catering, adequate ICT and retail facilities, and entertainment.

11. Sustainability
In the interviews with facility managers, the interviewees mentioned a number of FM measures to support sustainability such as an efficient and "green" purchase policy, biological catering, use of biodegradable materials, waste reduction programs, activities to improve peoples' awareness of the necessity of sustainability and to promote a "green" attitude and environmental friendly behaviour, and appointment of a sustainability specialist or co-ordinator. Although in the CREM interviews sustainability was not included as a particular added value, this issue was quite often brought on the table. Usually sustainability was not perceived as a main objective of healthcare organisations, but as a means to cost reduction and secondly as a means to support a positive corporate image by showing social responsibility. In most cases sustainable measures are applied only when extra costs have a reimbursement period of less than 5-10 years.

DISCUSSION

METHODOLOGICAL REFLECTIONS

The qualitative approach of this research – using semi-structured interviews with open questions – delivered much information on how adding value is being perceived by hospital managers and which added values are prioritized in CREM and FM decision making. The results contribute to a better understanding of adding value by sound FM, in general and specifically for the healthcare sector. However, the validity of the results could be improved by conducting more interviews and organising expert meetings to discuss and compare individual rankings. The same methods could be applied in other sectors like office organisations or higher education (where similar values have been investigated, see chapter 11) in order to explore similarities and dissimilarities in different fields.

Though hospital real estate is being regarded now more and more as a resource for production, a remarkable difference appeared between the response to open questions and the prioritizing assignment in the more structured part of the interview. In response to the open question to mention values that are steered on in design and management of hospital real estate, most respondents mentioned facilitating the primary processes and supporting productivity as the main objectives. Confronted with added values of real estate mentioned in the literature, the main real estate objective seems to shift from process oriented priorities towards the contribution of real estate to organisational strategic objectives such as stimulating innovation, improving culture and increasing user satisfaction. Whereas in the open interview flexibility is often mentioned as an important added value, in the ranking assignment this issue is hardly given a high priority, probably because it already has been a common issue in real estate management for decades. Cost reduction shows to split the interviewees in two groups. Part of the respondents ranked cost reduction in the top of highly prioritized values, whereas others give this issue low priority. Although in the open interview most hospital managers call cost reduction a basic issue in most real estate decisions, in particular since the new healthcare real estate regulations, surprisingly cost reduction gets median priority, just like productivity and flexibility. This might be due to the fact that the interviews were conducted regarding building-in-use.

Probably, ex ante (in the phase of initiation, briefing and design), cost effectiveness will be ranked high by most decision makers.

PRIORITIES IN ADDING VALUE BY FM AND CREM

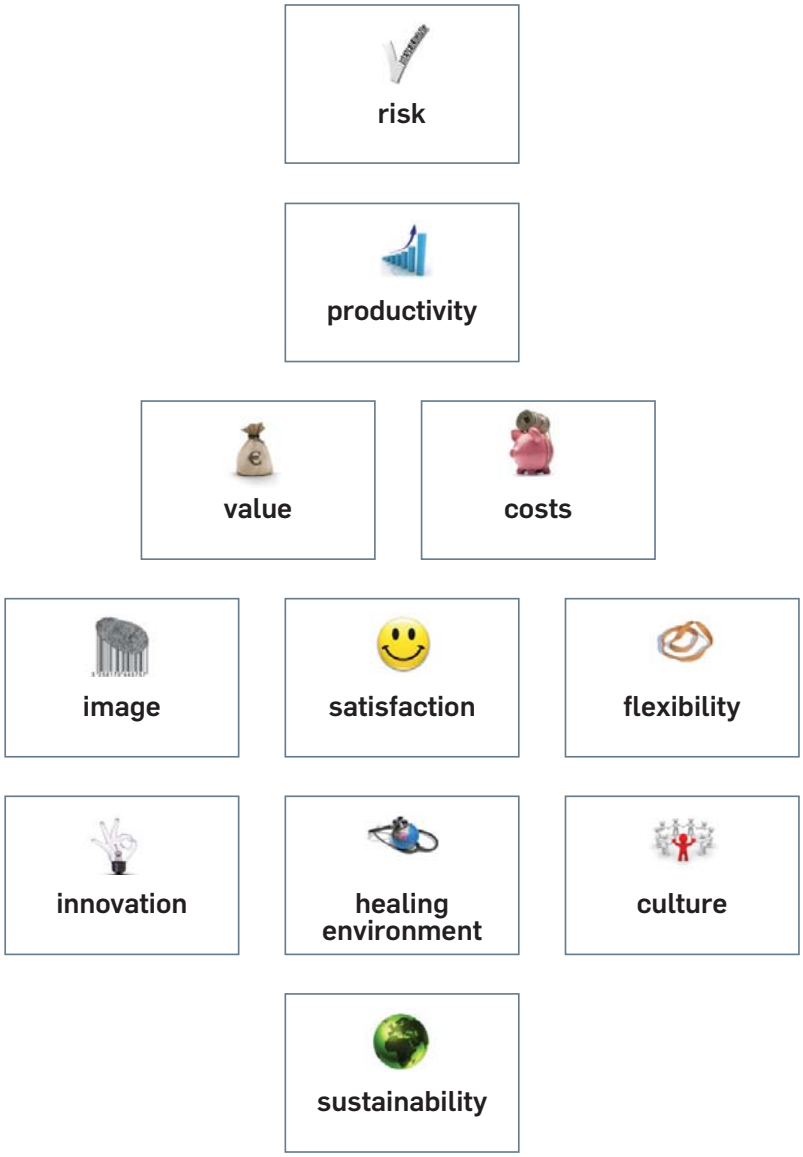
In some clusters of prioritized aspects the triplet of People-Process-Place (Duffy, 1992) can be recognized. For instance: stimulating innovation, increasing user satisfaction and improving corporate culture are all supposed to contribute to organisational performance by 'people working together, in a smart way organising things efficiently' as one CEO mentioned in the interview. Another cluster of added values: cost reduction, increasing productivity and optimizing flexibility, contributes to the production process of healthcare services and the prices of products and services. As one CEO said: *"some added values are enablers and contribute to a higher productivity, others are more the result of an increasing productivity (ablers)".* A third cluster of added values - contributing to corporate image, controlling real estate related risks and improving finance possibilities - are more directly related to the concept of place.

Prioritizing of added values is often linked to core issues in the mission and vision of the organisation and the present context. Figure 13.4 shows a ranking of the facility manager of a general hospital. Here risk control and steering on safety of patients and staff is a core issue, with productivity support as the second most important issue. Then a number of issues supporting user satisfaction and human wellbeing are more or less equally import. Sustainability is important as well, but mainly in connection to cost reduction.

The facility manager of the Amsterdam Medical centre, an academic hospital, wants to meet the criteria of the Joint Commission International (JCI), with a focus on safety of patients and staff. So here, too, risk control is a key issue, but strongly in connection to steering on a healing environment, user satisfaction, a positive image and supporting corporate culture. A second cluster is directed to economic issues such as cost reduction, value increase, stimulation of innovation and sustainability. Increasing productivity and flexibility were prioritized in between and guided by the so-called Lean Six Sigma system, a way to analyse working processes in order to optimize its efficiency and effectiveness.

Prioritizing possible added values of CREM and FM showed to be different in connection to the position in the life cycle as well. The configuration of cards in Figure 13.5 represents more or less the average ranking of all respondents that were questioned with regard to CREM (Van der Zwart, 2011). The hospital of this CEO has been built under the former hospital real estate regulation and is now in the exploitation phase of the building process. His ranking shows stimulating innovation as top priority. Two other values – improving user satisfaction and improving organisational culture - are ranked as second highest priority. Then two columns are recognizable (and also described as such by the CEO while sorting the cards), with three added values (at the left) connected to the process and a focus on financial performance: increasing productivity; decreasing real estate costs as a means to decrease the price of healthcare products and services, and controlling real estate risks, and three added values (at the right) that are

Figure 13.4: Priorities of a facility manager working in an academic hospital

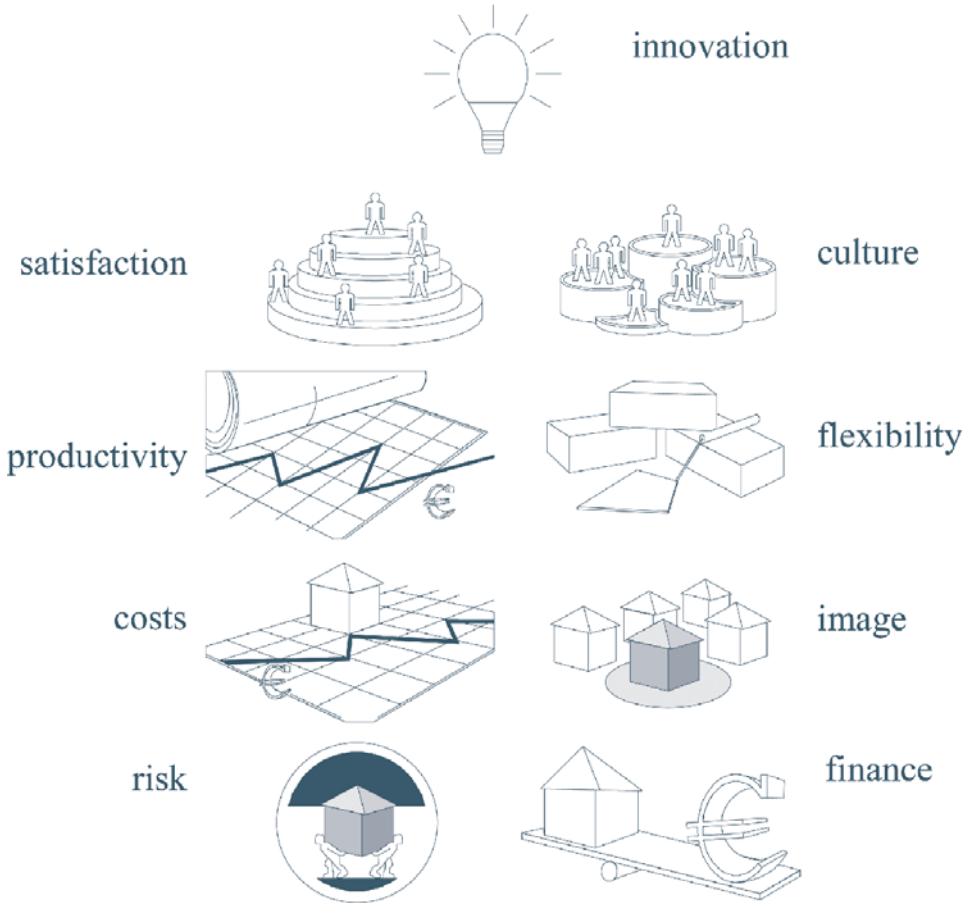


more building related: optimizing flexibility; supporting corporate image, and increasing finance possibilities. According to this CEO these values were captured in the building design, and as a consequence adding value management with regard to these issues is less possible in the exploitation phase.

CONNECTION BETWEEN CORPORATE STRATEGY AND FM STRATEGY

In the FM interviews a question was asked about the facility strategy of the organisation and the strategy of the FM department. Five out of eight hospitals did not have a clear FM strategy, whereas in three hospitals the FM strategy was quite clear and also clearly connected to the

Figure 13.5: 'Representative' result of a ranking assignment regarding real estate



overall strategy of the organisation. Academic hospitals showed to focus on a top position and being innovative, whereas in general hospitals patient centred care and hospitality were core issues in the strategy of the FM units. Efficiency and professionalism showed to be key issues in their strategy as well. Regarding the value propositions of Tracey and Wiersema (1995) similar differences were traced. The three academic hospitals that have been interviewed showed a focus on product leadership, whereas the general hospitals that were interviewed focused on operational excellence and/or customer intimacy. This holds true for the strategy of the FM departments as well. None of the interviewed FM units considered product leadership as their core value.

LISTING OF ADDED VALUES

Whereas in the interviews with CEOs and project managers sustainability was not included as a separate added value, it seems to be more appropriate to add this value to the overall list. By adding sustainability as a particular value, as Den Heijer (2011) did in her dissertation on Managing the University campus (see chapter 11), rankings in the healthcare sector may be better comparable with ranking in other fields. Besides, it fits with the growing awareness of the im-

portance of sustainability. In the field of healthcare, "healing environment" is of utmost importance and needs particular attention. In other domains other particular values – e.g. "facilitating new ways of learning" in case of an educational environment - will be more appropriate.

MEASURING ADDING VALUE BY FM AND CREM

Regarding performance measurement and monitoring still much progress can be achieved. It was remarkable to see that in spite of some standard procedures such as the use of the Balanced Score Card, benchmarking, and (inter)national quality standards or accreditation procedures, a number of different "local" measurement methods and tools came to the fore. For instance, most managers use their own questionnaire to measure customer satisfaction, whereas other managers prefer a more qualitative approach e.g. by having short talks with patients, visitors and staff. This makes benchmarking on quantitative performance indicators quite difficult.

CONCLUSION AND NEXT STEPS

This research is a first exploration of adding value by FM and CREM in the field of healthcare. Additional research is needed to improve our understanding of a) which FM and CREM decisions will positively affect organisational performance, qualitatively and quantitatively; b) interrelationships between the performance indicators; c) synergy or conflicts between values; d) clearness and completeness of the list; and e) how the concept of added value and its different aspects appeal to decision makers. It is well known that steering on high quality buildings with a high level of competitive advantage may conflict with other values such as low investment costs and standardization. The need for much daylight may cause high cleaning costs of glass panels and conflicts with the need for a reduction of CO_2 emissions. Organising expert panels to discuss these conflicting values will be one of the next steps. A second next step is to conduct reviews of literature and empirical research in depth with a focus on one particular added value of real estate – e.g. labour productivity, employee satisfaction or future marketability. Furthermore the results of the interviews will be linked to building assessments in a number of case studies, including floor plan analysis and analysis of documents such as the brief and corporate strategies.

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