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VALUE ADDING MANAGAGEMENT OF HOSPITAL REAL ESTATE

Balancing between different stakeholders' perspectives

Johan van der Zwart en Theo van der Voordt, Delft University of Technology, Faculty of Architecture, Department of Real Estate & Housing. Corresponding author: j.vanderzwart@tudelft.nl

Summary
In addition to cost effectiveness, possible contributions of real estate to organisational performance are incorporated in strategic corporate real estate management nowadays more and more. This paper explores the concept of adding value by real estate and how this concept is being applied in design and management of hospital accommodations. Added value of real estate is a multi-dimensional concept with multiple stakeholders being involved. Stimulating innovation, improving satisfaction of patients and staff, and supporting (change of) culture are ranked high in interviews with CEOs, corporate real estate managers and project leaders of hospitals. Real estate interventions are also directed to support labour productivity, flexibility and cost reduction. Remarkably, risk management and opportunities to use real estate financial value to finance organisational processes are much less recognised as important added values of hospital real estate. Priorities turn out to be different in the initiation phase versus buildings-in-use.

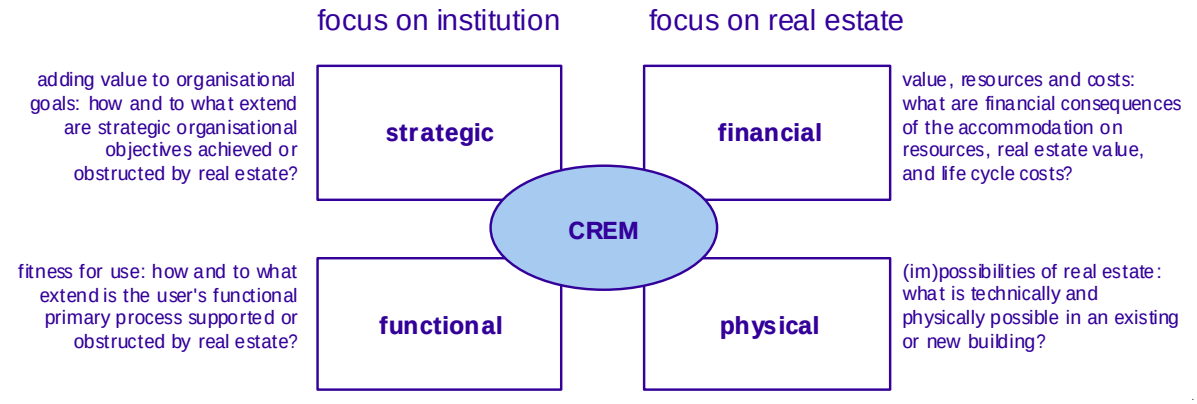
Key phrases
- Hospitals are becoming more responsible for own investment decisions.
- Value adding management of real estate requires ex ante definition of real estate objectives and ex post evaluation whether objectives have been attained.
- The added value of real estate is a multi-dimensional concept
- Patients and staff are key
- Values are context and sector-dependent
- Values should be linked to different stakeholder perspectives

Introduction
Real estate is one of the resources that organisations can use to attain organisational goals and to add value to the organisation. Due to a move towards less governmental support in favour of increasing entrepreneurship, Dutch hospitals are becoming more responsible for their own accommodation investment decisions. This happens in other European countries as well. This is visible in the third wave of healthcare reform (Cutler, 2002) in which market incentives play an important role to reduce medical expenses. Integral pricing of diagnosis-treatment combinations including accommodation costs is an important part of the new Dutch health care system to stimulate cost-effectiveness and to create market incentives. This changing context creates opportunities for the institutions but also new risks. As a consequence, Corporate Real Estate Management (CREM) of Dutch hospitals shifts to managing real estate as a strategic asset that should add value to the organisation like other resources such as money, HRM and technology. This requires an accommodation strategy that is aligned to the organisational strategy.

Adding value by real estate
Value as a concept originates from economy, with financial value being the trade-off between costs and revenues. Within economic literature, value for a customer is also defined as the preference of a customer for a product or service and the extent to which (the use of) the product meets the targets set by the customer (Woodruff, 1997).This definition presents value as subjective perception by a specific stakeholder, the customer. In a broader sense, added value of real estate can be defined as the perceived contribution of the accommodation to achieving the goals set by all stakeholders. Added value of real estate is as such a subjective concept related to different stakeholders such as policy makers, controllers, users, and technical managers, and their different perspectives on real estate.

According to Den Heijer and De Jonge (2012) these perspectives on real estate can be classified into four categories (Figure 1).

Figure 1, Four perspectives on real estate (adapted from Den Heijer and De Jonge, 2012)

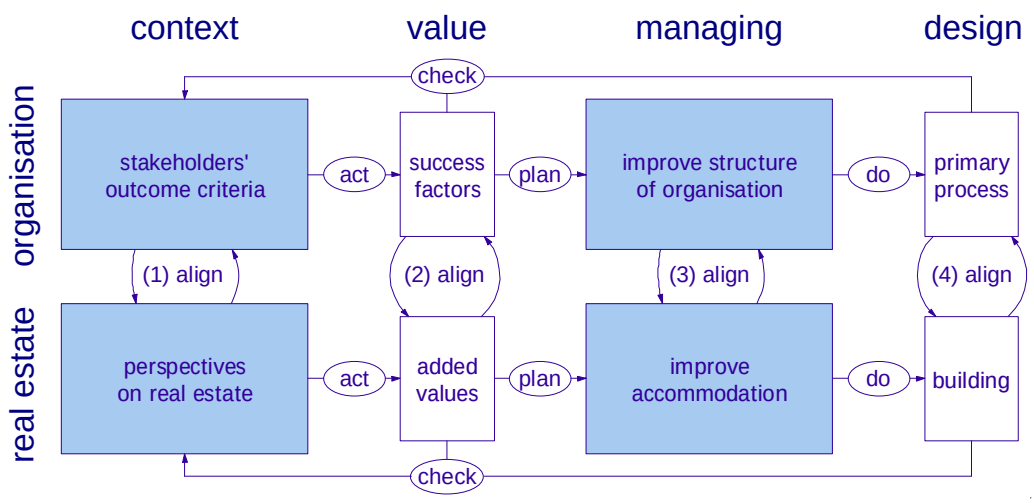


Jensen, van der Voordt, and Coenen (2012) traced six different types of added value: use value (quality in relation to the needs and preferences of the users), customer/consumer/user value (the trade-off between benefits and costs for these stakeholders), economic/financial/exchange value (the economic trade-off between costs and benefits), social value (e.g. supporting positive social interaction or reinforcing social identity), environmental value (Green FM, environmental impact of FM), and relationship value (e.g. getting high-quality services or experiencing a special treatment) (Jensen et al., 2012b). This clearly shows the multi-dimensionality of the added value concept.

Value adding management of real estate

As value depends on the perception of stakeholders, stakeholders should be able to define ex ante the desired values and ex post assess whether the goals are attained. This process can be managed by using principles from healthcare quality management. Quality management is a cyclic process of defining, achieving and testing the pre-set goals. Important principles of quality management in healthcare are the plan-do-check-act cycle (Deming, 1950) and managing quality of care in connection to organisational structure, process and outcome criteria (Donabedian, 1988). Both principles have been combined into a model for adding value management to align real estate strategy to organisational strategy and care processes (Figure 2). This model consists of four steps (context, value, managing and design) regarding both the primary process of the organisation and the accommodation. The cycle starts with an evaluation of the organisation and its real estate based on an assessment of the internal and external context and stakeholders' outcome criteria derived from stakeholder's objectives. Successes and failures define plans for improvement. Implementation aims to result in an improved organisational structure and more effective and efficient primary processes, and real estate interventions that add value to the organisation and supports its performance. The final step is to check if the decisions regarding organisation and real estate result in improved outcomes for the stakeholders. When the context and/or stakeholders' objectives change, it can be necessary to conduct this quality assessment again. Important steps are ex ante defining the desired values and checking whether these value are achieved in the accommodation by Design Research and by Post-Occupancy Evaluation (POE) of the building-in-use.

Figure 2, Value adding managing of real estate



Value adding management of hospital real estate

As part of a wider study into hospital real estate management in a changing context (Van der Zwart, 2011; Van der Zwart, Arekesteijn, & Van der Voordt, 2009; Van der Zwart, Van der Voordt, & De Jonge, 2010), fifteen interviews were conducted with CEOs and real estate project managers on opportunities and constraints of adding value by hospital real estate. All interviewees are involved in management of hospitals that constructed a new building in the period 2004 - 2012. Key points for discussion were the accommodation strategies of these hospitals and the role of added value of real estate during the life-cycle of the building. Three main questions in the interviews were:

- What are the key strategic objectives for the accommodation of your hospital?
- Which added values of real estate are prioritised?
- How are these values incorporated into the design of the hospital building?

Based on a literature review, nine added values of (hospital) real estate can be defined (Figure 3). These values were used as a reference for discussing the perception of added values of real estate in the accommodation management and design of the interviewed hospitals.

Figure 3, Nine added values of real estate from CREM literature

real estate added value	definition
reduce costs	To reduce investment costs, capital costs, operational costs and other real estate related costs during the whole life cycle.
improve productivity	To increase production with the same amount of resources for production or the same production with less real estate through a more efficient use.
increase user satisfaction	To create functional, pleasant and comfortable places for all end users, such as visitors, customers and employees
improve culture	To support shared values and behavioral rules.
increase innovation	To stimulate renewal and improvement of primary processes, products and services by real estate.
support image	To express corporate objectives by using real estate as a brand of organisational mission, vision and culture
improve flexibility	To incorporate flexibility and adaptability of real estate to facilitate future spatial, technical, organisational and juridical adjustments.
improve finance position	To attract external financing to reinvest in the primary process or to improve the overall financial position of the organisation by managing real estate as an asset.
controling risks	To anticipate on real estate related technical and financial risks.

According to the interviewees, the first priority of hospitals is to deliver good healthcare in a cost-efficient way. Real estate is secondary but at the same time an important resource to attain the organisational objectives and to optimally facilitate healthcare processes, effectively and efficiently. Being a resource for production, real estate is always examined upon its facilitating role of care processes and its impact on business economics. Supporting the primary process requires that the building is functional, attractive and comfortable. On the one hand the building has to support patient's needs and wellbeing. On the other hand the building has to be a pleasant and productive working environment for healthcare staff. Therefore, the building should support multidisciplinary and patient focussed working processes. Remarkably, although sustainability is being perceived as important and linked to corporate social responsibility, it is mainly assessed on the impact on investment and running costs. Five other main lessons emerged from the interviews are described below.

a. People are key

Supporting innovation, patient and employee satisfaction and culture were highly prioritized by CEOs and real estate project managers. These values are related to the experience of the building by its users. Measures to stimulate innovation and improve organisational culture were linked to social interaction and communication by creating meeting places where healthcare professionals can exchange information and ideas. References were made to the use of innovative office concepts and creating a back-office for medical specialists. Patient satisfaction was often linked to hospitality, healing environment and the Planetree concept with the ultimate aim of contributing to the health and wellbeing of the patients.

b. Alignment of the accommodation to primary processes

A general value is to provide optimal healthcare for a reasonable price. Related real estate values are increasing productivity and reducing costs. Reducing capital charges of real estate lowers the price of healthcare products and services. Optimising flexibility and adaptability of the building are often applied to be able to continuously align the building to changing healthcare processes and to increase productivity in a changing context.

c. Priorities depend on building phase

A number of added values of real estate such as image of the building are difficult to customise after completion of the building and for this reason highly prioritized in the initial phase and during the design of the building. Due to the static character of real estate, importance decreases once the building is realised. Controlling risk and using real estate as an asset are closely related to the physical appearance of the building and the location. These real estate characteristics determine largely the future-value of real estate and opportunities to facilitate changing user requirements and adaptive re-use.

d. Sector dependent definitions

The respondents interpreted user satisfaction as patient and employee satisfaction. Apparently, patient satisfaction and employee satisfaction are perceived as two distinct added value of real estate. The use of real estate to get a high return on investment – now and even more in the future - was not recognised as an important issue in the context of hospitals. Real estate choices as a means to increase finance possibilities appeared to be comparable with measures to controlling risk. Application of functional 'layers' by division of the building in a hot floor (operating theatres), office, hotel (bedrooms) and factory (laboratories) was often mentioned as a mean to improve the marketability and future disposal of hospital real estate at the end of the functional life cycle.

e. Value for different stakeholders

The respondents were asked about how added values of real estate were visible in the design of the hospital building. The responses varied from associations with regard to the concept of value adding, abstract visions on accommodation to concrete design interventions. All these different responses are linked by the authors to four perspectives on real estate (Den Heijer & De Jonge, 2012): strategic, financial, functional and physical. In this way Figure 4 summarises the perception of added values of hospital real estate by the interviewees.

Figure 4, added values of hospital real estate linked to four perspectives on real estate

added value of real estate	perspectives on real estate			
	strategic	financial	functional	physical
increase innovation	Innovation as a continuous process of optimising healthcare services;Co-location of healthcare providers	Financing system with seperated budgets for cure and care are contra-innovative	ICT patient information; Central waiting system; Use of patient lift systems;	Places for medical staff to meet each other; Facilities like skill slabs and knowledge centers; Minimal suregry in single patient bedrooms
increase user satisfaction	Human in general is central; Attracting and retaining good personnel	Extra investment in real estate for healing environment	Well being of patients; Planetree concept; Central waiting concept; Processes where medical process is central versus processes where patient stands central.	Architectural quality of patient rooms; Single patient bedrooms
improve culture	Real estate as the outboard engine of the organisation; Improve communication between staff and healthcare professionals		Front-back-office concept; Office concept (flex working, desk sharing or boxes); The building supports the interaction between people	.Paying attention to places where people can meet.
reduce costs	No more square meters as necessary	Future expansions based on new business plans; Investment level that fits the scale of the building; Controlling investment costs and real estate related costs	Space reduction by shared workspaces; Strict budgeting of space per department	Life cycle costs including maintenance and energy; Sober plans with slim-fit buildings Low initial investment costs; Sustainability to make hospital future proof and less reliant on traditional energy resources.
improve productivity	Ensuring that healthcare professionals can do their work as efficient as possible	Yearly space budgeting per department based on production and turnover; Production rates; Empty beds	Optimally facilitating the healthcare processes; Front/back-office concepts; Healing environment; Single person bedrooms	Centralization high technical functions in hot floor; Spatial clustering; Separating logistics from patient and personnel streams
improve flexibility	Supporting changing business processes during the lifespan of the building; In initial phase important, during occupational phase a given fact.	Extra investments in future flexibility; Pre investments in expandability; Possibilities to rent space.	Adaptability; Multi functional use of space; Sharing consultant and treatment rooms, wards and other facilities; Standardising spaces; Flexible office concept	Robust building that makes different layouts possible; Separated technical installations; Standardisation; Supporting structure and fill-in; Expanding possibilities
support image	Improve competitive advantage by using the building as a marketing tool, both for (potential) patients as employees	Extra investment in architectural quality	Healing environment; Percentage single bedrooms; Hospital as hospital recognisable	Nice and easy access location; Nice overall architectural appearance
control risks	Risk reduction in healthcare processes	Business case; Marketability of real estate; Real estate in Private Limited Company; External clinics rented	Longer opening hours to optimize available capacity	Slim fit building with no more square meters as necessary; Outsourcing maintenance for a longer period; Contractor and technology parrtner in initial phase and design procces
improve finance position	Real estate is more a resource for production than an asset	Banks as stakeholder; Private investment in hospital real estate; Marketability of real estate; Real estate as an asset; (Potential) location value; Urban Area Development	Choice between optimizing healthcare processes during lifespan of building or marketability afterwards.	Layer approach (hot floor, hotel, office and industry) ; Location potention

Concluding remarks

The framework of nine added values linked to four stakeholder perspectives can be used as a reference in decision-making about hospital accommodations at strategic and tactical levels. As such it provides input to the development and implementation of a professional accommodation strategy and briefing, design and management of hospital buildings and other health facilities. The huge variety in associations regarding accommodation solutions shows the need for a clear conceptual framework on added values of hospital real estate. Besides, the explorations of adding value by real estate might be applicable in other sectors as well.

A next step could be to operationalize the added values in depth and to develop measurement tools on different scales: a real estate portfolio, buildings, departments and places. A start has already been made with the development of a design assessment tool for newly built hospitals. This "research by drawing" explores how different added values of real estate can be made visible in the floor plans and cross-sections of a hospital building in the design phase. December 2013 this study will be published in the PhD-thesis of the first author on value adding management of hospital real estate in a changing context.

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