Real estate added value and decision-making in hospital infrastructure

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Theo van der Voordt, co-promotor
Content

- Research design
- Adding value by hospital real estate
- Design Assessment Deventer Hospital
A: MANAGING HOSPITAL REAL ESTATE
How can Corporate Real Estate theory and theory on organizational management be integrated in a conceptual framework, in order to support real estate briefing, design and management?

B: ADDING VALUE BY HOSPITAL REAL ESTATE
What is the state of the art of theory and practice on adding value by real estate? How is the concept of adding value by real estate to organizational objectives perceived and used by hospital decision makers?

C: HOSPITAL REAL ESTATE DESIGN ASSESSMENT TOOLS
What tools are available or should be developed to assess adding value by real estate during a design decision process? How is the concept of real estate added values translated in design decisions of hospitals?

D: REFLECTIONS, CONCLUSIONS AND RECOMMENDATIONS
What theoretical insights resulting from this research can be added to the theory of Corporate Real Estate? Which theoretical concepts can be applied and which tools can be used to support hospital real estate decision making?

BACKGROUND AND INTRODUCTION
How can real estate contribute to the attainment of organizational objectives of hospitals and how could this concept of adding value by real estate be implemented in briefing, design and management of hospital buildings?

PRACTICE

literature study, document analysis, expert interviews and case study research on the context of real estate in hospital sector.

interviews with CEOs and RE managers of hospitals and case studies on initial documents and briefs of hospitals on adding value by real estate.

interviews with architects and comparative case study on how added values are translated in hospital design.
Theoretical model corporate real estate

- Impact on society
- Customer satisfaction
- Employee satisfaction
- Business results
- Key issues for success
- Leadership
- Human resources
- Policy & strategy
- Resources
- Process
- Functional
- Strategic
- Physical
- Financial
- Adding value by real estate
- Current demand
- Current supply
- Future demand
- Future supply
- CRE (Corporate Real Estate)
- Leadership
- Human resources
- Policy & strategy
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What contextual information is relevant for managing and designing hospital real estate?

How is the concept of adding value by real estate percieved and used by hospital decision makers?

What is the state of the art of theory and practice on adding value by real estate?

How is the concept of real estate added values translated in design decisions of hospitals?

Which theoretical concepts can be applied and which tools can be used to support hospital real estate decision making?
Literature adding value by real estate

- Added values are defined and redefined in time
- Nine added values are described by all authors
- No healthcare specific added values found

<table>
<thead>
<tr>
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<tr>
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<td>increase productivity</td>
<td>increasing productivity</td>
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<td>supporting user activities</td>
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<td>increasing (user) satisfaction</td>
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<td>increase flexibility</td>
<td>increase of flexibility</td>
<td>enhancing flexibility</td>
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<td>Capture real estate value creation</td>
<td>improve availability of finance (increase of value)</td>
<td>increase value of assets</td>
<td>increase of value</td>
<td>expanding funding possibilities</td>
<td>increase real estate value</td>
<td>controlling risk</td>
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</tbody>
</table>

- Added values of Real Estate

- Real estate added values

- Occupancy cost minimalization: reduce cost, reduce costs, cost reduction, reducing costs, decreasing costs
- Facilitate and control production, operations and service delivery: improve productivity, increase productivity, increasing productivity, increase productivity, supporting user activities
- Promote Human resource objectives: increase employee satisfaction, increasing satisfaction, increasing (user) satisfaction, improving quality of place
- Facilitate managerial processes and knowledge work: improve culture, changing the culture, improving culture, supporting culture, stimulating collaboration
- Facilitate sales and selling processes: marketing, promote marketing and sale, PR and marketing, supporting image, supporting image
- Flexibility: increase flexibility, increase flexibility, increase of flexibility, enhancing flexibility, increase flexibility
- Capture real estate value creation: improve availability of finance (increase of value), increase value of assets, increase of value, expanding funding possibilities, increase real estate value
<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>reduce costs</strong></td>
<td>To reduce investment costs, capital costs, operational costs and other real estate related costs.</td>
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<tr>
<td><strong>improve productivity</strong></td>
<td>To increase production with the same amount of resources for production through a more effective use of real estate.</td>
</tr>
<tr>
<td><strong>increase user satisfaction</strong></td>
<td>To create functional, pleasant and comfortable places for visitors, consumers and employees.</td>
</tr>
<tr>
<td><strong>improve culture</strong></td>
<td>To improve interpersonal relations and communication by real estate.</td>
</tr>
<tr>
<td><strong>increase innovation</strong></td>
<td>To stimulate renewal and improvement of primary processes, products and services by real estate.</td>
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<tr>
<td><strong>support image</strong></td>
<td>To expose corporate objectives by using real estate as an icon for the organizational culture.</td>
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<tr>
<td><strong>improve flexibility</strong></td>
<td>To structure a real estate portfolio in a way that future spatial, technical, organizational and juridical adjustments are possible.</td>
</tr>
<tr>
<td><strong>improve finance position</strong></td>
<td>To attract external financing to reinvest in the primary process or to improve the overall financial position of the organization by regarding real estate as an asset.</td>
</tr>
<tr>
<td><strong>controlling risks</strong></td>
<td>To anticipate on future real estate related technical and financial opportunities and risks.</td>
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</table>
Research methods added values

Selection of different hospitals with regard to:

- General, top clinical and academic hospitals,
- geographic location,
- position in building process

<table>
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<th>place</th>
<th>code</th>
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<td>390</td>
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<td>top clinical</td>
<td>M</td>
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<td>top clinical</td>
<td>L</td>
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<td>n.a.</td>
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<td>Amersfoort</td>
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</table>

Document research

Interviewing CEO or building project manager:

- open questions about real estate goals
- prioritizing added values by using cards
PEOPLE

innovation

culture

satisfaction

flexibility

productivity

image

costs

finance

risk

finance
### Perspectives on real estate

<table>
<thead>
<tr>
<th>Perspectives on real estate</th>
<th>Strategic</th>
<th>Financial</th>
<th>Functional</th>
<th>Physical</th>
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<tbody>
<tr>
<td>adding value to organizational goals: how and to what extend are strategic organizational objectives achieved or obstructed?</td>
<td></td>
<td>value, resources and costs: what are consequences on financial impact on resources, real estate value, and life cycle costs?</td>
<td>fitness for use: how and to what extend is the user's functional primary process supported or obstructed?</td>
<td>(im)possibilities of real estate: physical consequences of real estate.</td>
</tr>
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#### reduce costs
- Investments based on business plan
- 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

#### improve productivity
- Ensuring that healthcare professionals can do their work as efficient as possible
- Yearly space budgeting per department based on production and turnover
- Optimally facilitating the healthcare processes
- Front/back-office concepts
- Healing environment
- Single person bedrooms
- Centralization high technical functions in hot floor
- Separating logistics from patient and personnel streams

#### increase user satisfaction
- Attracting and retaining good personnel
- Human in general is central
- 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

#### improve culture
- Real estate as the outboard engine of the organization
- Front/back-office concept
- Office concept (flex working, desk sharing or boxes)
- Paying attention to places where people can meet.

#### increase innovation
- As added value highly prioritized
- Innovation as a continuous process of optimizing healthcare
- Places for medical staff to meet each other
Preliminary reflections and conclusions

Clustering *people, process and place*.

- **People** related added values highly appreciated, followed by **process** and then **place** related values.

Added values of hospital real estate

- Redefine *user satisfaction* in *patient satisfaction* and *employee satisfaction*.

- *Stimulating innovation* is highly appreciated by hospital CEOs but shows similarities with *improving culture*.

- *Improving safety*: risk reduction in primary process as possible new added value.

- *Sustainability* is part of cost reduction.
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THEORY
- theory on Corporate Real Estate Management and organizational management.
- theory on added value of real estate
- theory on architectural assessment tools

PRACTICE
- literature study, document analysis, expert interviews and case study research on the context of real estate in hospital sector.
- interviews with CEOs and RE managers of hospitals and case studies on initial documents and briefs of hospitals on adding value by real estate.
- interviews with architects and comparative case study on how added values are translated in hospital design.
‘A new hospital building is important for the image of the Deventer Hospital. But is the building the hospital’s organisation?…… NO! The building is the place where the organization delivers its care. The organization consist of people and its working culture.’

Healtcare concept deventer hospital, 1998

‘Improving culture functions very good in this building. The logistic flows make that people meet each other. This results in less formal meetings and more one to one contact.’

Interview CEO Deventer hospital 2010
‘A hospital is not built to increase financing possibilities. We are here on earth to care for people as good as possible and not for speculating in real estate.’

Interview CEO Deventer