

How CREM strategies apply to primary school buildings

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ABSTRACT: The purpose of this paper is to investigate which theoretical elements of adding value with? real estate are applied in practice in accommodating primary education and in what way these are elements relevant to the stakeholders. A literature study of usual CREM strategies has been used to build a theoretical framework with regard to the value a building can create for different stakeholders. Interviews were then held with various professionally involved people in order to understand to what extent the general theory is taken into account with regard to “added value” for the stakeholders of primary school buildings. The data show that CREM theory also can be applied to the “not for profit” school buildings, but that not all potential possibilities to add value with real estate for primary education seem to be applied in practice.

Keywords: Corporate real estate, Added Value, Primary education, Stakeholders

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I. INTRODUCTION

The factors marketing, increased satisfaction of employees, increased productivity, flexibility, and reduction of costs were mentioned explicitly as possibilities to add value for stakeholders by/with?real estate. Based on this limited research it seems reasonable to assume that the sector of primary education strategically focuses little on increasing the value of real estate. The article summarizes the theory of the added value of real estate for organisations. The empirical findings show that professionals are basically aware of the possible added value of real estate for the primary process. The added value is expressed in many ways and is also perceived differently by the stakeholders. The main outcome of this research, however, is that the possibility to add value withreal estate hardly ever plays a role in a real estate strategy, nor is it used as an argument to increase available budgets. Due to the limited number of interviews, further research is needed regarding the assumed relationship between real estate strategies and the perception and behaviour of the different stakeholders. In the Netherlands, various studies have been conducted into the importance of CREM theory for decisions on real estate for Higher Education. Similar research onprimary education housing is almost lacking. The data show that CREM theory also can be applied to the “not for profit” school buildings, but that not all potential possibilities to add value with real estate for primary education seem to be applied in practice.

The main purpose of this research

The main purpose of this research is to give insight in the way primary school buildings can add value to the organisation, from the perspective of different stakeholders. Most of the recent literature (Jensen et. al, 2012 and 2014), (Beckers et. al., 2015) is about the added value of the CREM or FM process to an organisation. Research with a focus on the meaning of added value for each of the stakeholders of a specific school building itself is lacking for primary education.

In order to get the best out of an organisation’s real estate, it is vital to see real estate not only as a shell within which the organisation’s everyday activities and processes take place, but to also see it as a capital asset that can be used for goals that may be achieved in the longer term (Appel-Meulenbroek, 2007). Lindholm (2006) concluded that the possibilities of adding value through real estate wereoften not recognized or even considered. Therefore, it is an obvious assumption that a strategic planning with regard to the real estate of organisationscan also influence the results. Much has been written about what this means for the “for profit sector”. More and more, the CREM principles are applied to real estate with a public function. This research is about whether and in what way CREM theory can be applied to primary education housing.

De Vries (2007), Den Heijer (2011) and Kok (2014) conducted research on the importance of CREM and FM for decisions on real estate for higher education and universities. Their research showed that housing had a direct influence on the primary process of universities. The change in the funding of universities, for

instance, has led to a change in the process of prioritising. Previously, cost efficiency, architectural quality and centralization were prioritised, whereas factors such as customer appreciation and social cultural aspects are considered more important now (Geselschap, 2013).

Research about the relationship between Corporate strategies and real estate management is also available for higher education institutions. Beckers (2015), for instance, found that the CREM strategies in use are nowadays more clearly aligned with the corporate goals of an institution. De Kok (2014), based on a comprehensive literature review, found that the assessment of added value of a facility depends on the perceived functional or emotional advantages offered by that facility in relation to the costs, efforts and the risks involved in using that facility. According to Appel-Meulenbroek (2014), it is obvious that more funding will be made available for investments in real estate if there is proof that real estate adds value to the organisation.

It is highly likely that the CREM principles can also be applied to other sectors in education in the Netherlands, like for instance primary education. Similar research on the effects of real estate management on certain decisions with regard to primary schools housing has not been done yet. In the current situation in the Netherlands school boards receive the financial means for exploitation of the school directly from the Ministry of Education. Financial means for building and renovating school buildings are not included, because, in principle, a municipality is legally obligated to place a school building at disposal. For this, the municipalities receive funds from the so called "Municipal Fund". These funds, however, are not "earmarked" for school buildings. Based on the current regulations one could opt for further decentralisation. This implies that the financial means for the realisation of the school buildings are made available to the school boards and that further agreements with the municipality have to be made about the conditions in which way the means can be spent by the school board. In primary education, this possibility is hardly made use of.

It is true that there are other possibilities to divide the financial means for school buildings, but the question remains whether these possibilities provide sufficient freedom of policy to the school boards in the present situation. It could very well be possible to create school buildings that add more value to the organisation – if the means could be spent directly by the school boards. This is the exact reason for this research: to find out how and to what extent the different stakeholders judge the elements of CREM theory and the different ways real estate is of value for an organization. Real estate is generally recognized as the fifth business resource (Joroff, 1993). Several authors have written about the "added value of Real Estate" to an organisation. Nourse and Roulac (1993) and Krumm et al. (1998), among others, wrote about the added value of real estate for an organisation. Later, Lindholm et al. (2006) and Jensen (2010) wrote about a "framework that describes how real estate and facility management can create added value, either in a corporate real estate context or in a facility service provider context".

In the current situation in the Netherlands the complicating factor is that the municipality, as a result of current regulations, often is the beneficial owner of the building, and the school board merely the legal owner. In this situation, the question arises whether the real estate should be seen as the fifth business resource to the school board or the municipality. The role of the real estate as a business resource for the municipality is very different from the role it has for the school board. Because municipalities are the beneficial owners of the school buildings, they will probably steer towards financial performance indicators (cost minimization), whereas a school board is likely to be more interested in the added value that the building can give because of the role it plays in the educational process.

This article aims to answer the following questions: (1) What is, according to common CREM theory, perceived as "the added value of real estate", (2) Who can be regarded as the stakeholders of primary education housing in the Netherlands and (3) To what extent are the theoretical possibilities of adding value to an organisation with real estate recognisable in relation to the stakeholders of the primary education school buildings. The methodology applied in answering these questions will be described below. Subsequently, the results will be summed up followed by the conclusions.

II. METHOD

The first two questions are necessary in order to describe a solid theoretical framework. The answers to these questions are based on a literature study. This research has provided a theoretical insight with regard to the possibilities for creating "added value" for an organization and the stakeholders that can be distinguished when it comes to primary education housing. This resulted in a hypothesis regarding the relationship between the stakeholders and the possibilities to add value with real estate. Subsequently, this hypothesis was tested through interviews.

These interviews were held with representatives from several groups of stakeholders, in order to find out to which extent the CREM theory principles actually are of interest in the context of everyday working scenarios. These interviews were held with four school board members, four actors with an advisory role, and a municipality representative. A representative of one of the largest school boards in the Netherlands, a board member and an advisor of one of the most progressive school boards in the Netherlands, a public education

board member who has been involved in a lot of new housing projects during the past years, and finally municipality representative, as school board representative and as advisor who are currently working on a number of innovative school buildings have been interviewed. The question has also been answered by a legal expert in the field of education housing and by a housing advisor who has been involved in several school construction projects. The interviews were held according to the narrative method. The only question asked during the interview was: "from your perspective, which added value could primary education housing have for the various stakeholders (municipality, school board, employees, parents and children, and the environment)?"

The purpose of this approach is to find out to what extent the theoretical possibilities of adding value to an organisation by means of real estate, for the benefit of the stakeholders, was recognised by the interviewed professionals. So the stakeholders were mentioned, but nothing was said about the seven theoretical ways to add value to an organization with real estate. The interviewer has asked as little extra questions as possible. The interviews were recorded with the consent of all interviewees and were transcribed completely afterwards.

Current theory

Here the result of the literature study will be described. Firstly, the functions that real estate can fulfil will be taken up and the existing theory with regard to the value of real estate for an organisation will be described. Subsequently, the different stakeholders of real estate and which types of added value theoretically apply to each of them will be taken up.

Functions of Real Estate

Each individual real estate object has multiple functions. In his thesis "Focus on customer value", Smeets (2010) mentions five functions of real estate at object level. These five functions are: (1) the protecting function: Real estate fulfils the human need of conditioned space by providing both the necessary biological/physiological and physical shelter and mental shelter in the social and psychological sense. In short: we need a roof over our heads which protects us against weather conditions and gives us privacy, (2) the utilitarian function: Accommodation and organisation of necessary human activities and utterances - personal, social, cultural, educational, sporty, economical, etc. Concretely, real estate offers a place to work, to learn, to train, etc., (3) the domain and spatial function: The relationship real estate has with the environment in all its different levels makes it the starting and ending point of a social and economical network. In other words a meeting point in terms of accessibility, as well as a starting point for economical and social relations and activities. At the same time it offers the option to withdraw from these, (4) the communication and symbol/status function: Real estate is a medium to disseminate the (intended) own identity and the distinguishing status of the acquired social and economical position. It gives the possibility to realise a certain desired look by, for instance, architecture and (5) the financial/economical function: The capital intensive character, both in terms of investment needed and maintenance, implies a relation between the financial and fiscal equity position and its development. Thus, an owner who lets a property has a source of income. A user considers the costs of property as necessary within the production process.

The same functions are described in slightly different wording by De Vries (2008). She gives a broader interpretation to the communication and symbol/status function and includes the domain and spatial function in this category. According to De Vries this results in only four functions. Since the domain/spatial function is very clear for education real estate in particular, Smeets' principle will be followed. Because it fulfils the above mentioned functions, real estate is often regarded as an organisation's fifth business resource (Joroff et al. 1993). Just like capital, know-how, technology, and human resources, real estate can add value by contributing to the realisation of an organisation's goals (Den Heijer, 2011). Previous literature, as summarised by De Vries et al. (2008) shows that there are in fact two ways to improve an organisation's achievements - on the one hand by increasing the turnover, on the other hand by reducing the costs. Liow and Choulet (2008) call this the "Business perspective of CRE", with the following indicators: "costs", "profitability", and "productivity". Additionally, they mention "the financial perspective of CRE", which means that owning real estate influences a "firm's credit facility, its financial statements, and its operating economics".

According to Appel-Meulenbroek (2007), real estate has a direct influence on an organisation's achievements, for instance through lower maintenance costs and reduced energy consumption, but mainly through the indirect effects that the real estate has on employees, visitors, and processes. Therefore, real estate has an important role in the process of creating value by an organisation. In the past, several authors have defined the various interventions with regard to real estate that can influence an organisation's achievements. Veugel (2014) states that: "by Corporate Real Estate Management (CREM) the real estate portfolio can be brought into line with the requirements of the core business of the corporation". His research, based on a comprehensive literature study, resulted in a number of lessons learnt from Corporate Real Estate Management. These lessons are listed in the figure below.

13 Lessons	
1	Real estate can contribute to improving an organisation's social objectives.
2	A company-specific approach to creating value from real estate management makes a greater contribution to the company's objective.
3	Making the added value measurable is essential for the role as a real estate discussion partner in a company in which strategic decisions are made.
4	Becoming more flexible in the static nature of real estate and the speed at which society develops can be addressed by consciously thinking about the longer term. Decisions need to be taken in this regard that create opportunities for future optimisation.
5	Real estate interventions and effects reinforce the organisation's objective.
6	One of CREM's jobs is to formulate and implement an optimum solution.
7	CREM is playing an important role in reducing the burden of debt and building a dominant market position.
8	Sustainable competitive advantage compared to other companies is determined by three generic strategies that do not always go together: focus, differentiation and low cost.
9	Effects follow different eventualities and depend on the organisation's starting position and culture.
10	Cause-effect chains are unclear due to influences by several factors and performances are formed by complex end-means chains.
11	Real estate interventions depend on starting position and policy choices, in which context is subject to change.
12	A target-focussed company provides more consistent reasons for real estate interventions.
13	Collaboration is necessary in order to achieve social results, in which one monopolistic arrangement cannot deliver the benefit of values. Politics also has its own dynamics and interests that can cause rational considerations to disappear into thin air.

Figure 1: Lessons learnt from Corporate Real Estate Management (Veugel 2014: 132).

This has been elaborated concretely by Lindholm et al. (2006). It appears from the above that different interventions can influence all kinds of real estate achievements. Real estate can be of added value for an organisation through (1) increased value of property, (2) marketing, (3) increased innovations, (4) increased satisfaction of employees, (5) increased productivity, (6) increased flexibility, and (7) reduction of costs. After this, the question will be answered as to who can be regarded as primary education housing stakeholders. Subsequently, these stakeholders will be linked to the different ways in which real estate can add value to an organisation.

STAKEHOLDERS

When deploying a building, various stakeholders can be distinguished (among others Den Heijer, 2011, De Vries, 2007, and Mobic, 2009). Generally, this mainly concerns the real estate owners, users and environment. From the perspective of the Corporate Real Estate Management (CREM), Den Heijer (2011) distinguishes the stakeholders according to different functional domains: Strategic (Policy makers), Financial (Controllers), Functional (Users), and Physical (Technical managers). Kemperman et al. (2013) describes creation of value as "the sustainable result for all parties" and they distinguish value for customers, value for employees, and financial value. Stakeholders of companies are individuals, groups of individuals, or organisations that are influenced by how the companies function (Van den Bosch, 1996). Lindholm (2006) notes that an important part of the effects of CREM in practice is measured with instruments that are based on the Balanced Score Card (BSC) system, which was developed by Robert Kaplan and David Norton in 1992. Within the BSC system, four focus areas are distinguished: the financial, the managerial, the innovating, and the customer perspective. When these four perspectives are linked to the stakeholders that have been defined with respect to education housing, it appears that the stakeholders sometimes relate to several perspectives. Converting this to school buildings, it seems that municipalities and school boards have interests in their role as owners, and that employees and parents and children have interest in their role as users. It is not unlikely that these stakeholder interests could partly overlap. For instance, a school board does not only have interests as an owner, but as a user as well.

The purpose of the research conducted is to find out whether, and to which extent, the interviewed stakeholders recognize these interests and the ways real estate can bring something extra to an organization. It is not the intention to find actual performance measurement. It is more difficult to interpret the environment as a school building stakeholder. When thinking of a specific building, one could think of the immediate neighbours. On a more abstract level one can even consider society in general, because of the significance of

primary education. However, confining ourselves to the aspects that are manageable for decision makers with regard to a specific choice, it concerns the immediate neighbours and the nearby area. The above mentioned has provided a theoretical framework according to which the interests of primary education housing stakeholders can be related to all possible real estate strategies. The table below shows the assumed relation between the stakeholders and the previously mentioned strategies to add value to an organisation through real estate based on the literature study. The figure shows the assumption that, for most stakeholders, real estate can add value in many different ways. The figure shows the assumed relevance of the way in which real estate can add value for the different stakeholders. This assumption has been tested by means of a number of interviews with school boards, municipalities, and advisors.

Added value by:	Stakeholders:				
	Municipality	School board	Employees	Parents/children	Environment
Value increase	+	-	-	-	-
Marketing	-	+	+	+	+
Innovations	-	+	+	+	+
Employee satisfaction	-	+	+	+	-
Productivity	-	+	+	+	-
Flexibility	+	+	+	+	+
Cost reduction	+	+	+	+	+

Figure 2: own adaptation D. Kootstra 2015, based on Lindholm et al., 2006.

EMPIRICAL FINDINGS

Finally, the results based on the interviews will be given. As mentioned before, the interviews were held according to the narrative method. The purpose of the interviews was to find out about the stakeholders' awareness of the different ways a building can add value to the school. As mentioned, the intention was not to actually measure performance. The only question asked was: "which type of added value should primary education housing, seen from your perspective, have for these stakeholders: municipality, school board, employees, parents and children both, and the environment?" The different stakeholders were mentioned in the question, but not the different ways in which the building could add value for them. This way was done in order to get an idea of the awareness of the different parties with regard to the possibilities of adding value to the organisation through the property. For that reason the results will be listed per strategy and not per stakeholder.

(1) Increased value of the property: Contrary to what was expected, this possibility to add value to an organisation was not mentioned in any of the interviews. It was assumed that added value could at least be found in limiting the depreciation of buildings. Considering the situation with regard to funding of primary education housing in the Netherlands, where the municipality is the beneficial owner of the school buildings, it was expected that this possibility of adding value would be relevant for the municipalities at least.

(2) Marketing: This function of real estate is clearly recognisable in the sector of primary education. The interviews clearly confirm that a new, or at least a good-looking, building "sells" to parents who are looking for a school for their child. Marketing is used in different ways though. Some school boards choose to use the building as an instrument to increase their market share. Other school boards have, from this very understanding, made agreements to divide the children over the different school buildings as well as possible, in order to get to an efficient capacity utilisation of the buildings.

The Marketing function is related to the environment as well. As said, in this research "environment" is explained as the immediate neighbours and the nearby area. The municipality in particular seems to be designated to look after the interests of the environment as a stakeholder. This is because of the steering tools available to a municipality for spatial planning. Seen from this role, the municipality can influence the location and the appearance of a school building.

Sometimes schools are placed in an accommodation where cooperation with, for instance, a community centre or an organisation organising activities for children is brought about. Also, a few examples were mentioned where the municipality stimulated sustainability investments. However, this was not done for financial reasons, but proceeding from a sustainability ambition.

(3) Increased innovations: Of course, the school as a "not for profit" organisation is not aiming for market innovations. The primary process is focused on children's learning and not on innovations. The interviews showed that the stakeholders do apply innovative concepts in order to achieve education that suits modern times. With this in mind, the building teams are made up multidisciplinary. They are also advised professionally, to make sure that a new building does not just become a modernised version of an old building. Innovation as a way to increase revenues is obviously not an issue for primary schools. The benefits of an innovative building concept will mainly be reflected in the increased user satisfaction, increased productivity, increased flexibility and cost reduction, as mentioned below.

(4) Increased employee satisfaction: The role a building plays in the work perception of employees was recognised in most cases. As the employer, the school board is responsible for this aspect. None of the interviews have given reason to believe that savings in the form of lower sick leave were associated with a higher budget for a school building though.

(5) Increased productivity: The interviews left no doubt about the role that is seen for a good primary education building. Good housing is a prerequisite for education. A building has to support an educational concept and make it possible for children to keep learning and for teachers to keep teaching through a good climate.

(6) Increased flexibility: This aspect is of importance at different levels. On the one hand, flexibility with regard to the needed capacity is a factor. One has to consider which capacity is needed in which phase of the “life” of the building. On the other hand, flexibility with regard to the possibility of using the building differently within education is important so that one can move along with the changing methods of education.

(7) Reduction of costs: The interviewed professionals linked the financial aspects of education housing to the school boards. As mentioned before, this does not concern the possibilities for increased value of the properties but the exploitation costs. This aspect on the border of renovation and construction has led to discussions between municipalities and school boards more often now that school boards can dispose of the financial means for external maintenance of the building themselves since 1 Januari 2015. After all, municipalities are responsible for the expenses of construction whereas school boards pay for renovation.

The interviews have given a clear indication that real estate, in accordance with the theoretical possibilities, is used as a means to reduce costs in the form of exploitation expenses, such as costs for energy, maintenance, and cleaning.

III. CONCLUSION

Though the number of interviews was limited, the results still give reason to further investigate the assumed relation between real estate strategy and stakeholders. This specific research has made clear that the general CREM theory can very well be applied to real estate in the “not for profit” sector. Also, it appears that the seven common real estate strategies very well can be linked to the interests of school building stakeholders. The only thing is that the strategy of adding value by increasing innovations does not seem to fit for primary education housing in the Netherlands. The interviews confirm that the people involved seem to be aware of the meaning (or the added value) of real estate for the primary process of education. The different parties express this in very different ways. The research has not provided any evidence that these aspects are used to apply the available funds for education housing differently. On the basis of this research, the conclusion seems to be justified that a school building should be seen as the fifth business resource for school boards but not for municipalities. What's most remarkable is that none of the interviewees see possibilities in the value development of the property for instance by restricting depreciations. The interviews also show that this possibility to create value hardly ever plays a role in a real estate strategy, nor is it used as an argument to increase available budgets. No indications have been found that school boards make use of a clearly defined strategy in which the investigated possibilities for adding value are used. Possibly, the parties concerned are insufficiently aware of these possibilities.

REFERENCES

- [1] Appel-Meulenbroek, R. and Feijts, B. (2007). CRE effects on organizational performance: measurement tools for management. *Journal of Corporate Real Estate*, vol 9, Iss 4, 218-238.
- [2] Appel-Meulenbroek, R. (2014). How to measure added value of CRE and building design. Eindhoven: Eindhoven University Press Facilities. Doctoral dissertation.
- [3] Beckers, R., Van der Voort, T.J.M., Dewulf, G. (2015). Aligning corporate real estate with the corporate strategies of higher education institutions. *Facilities*, Vol. 33 Iss 13/14 pp. 775-793.
- [4] Den Heijer, A. (2011). Managing the University Campus (information to support real estate decisions). Delft: Eburon. Doctoral dissertation.
- [5] De Vries, J.C., De Jonge, H., Van der Voort, T.J.M. (2008). Impact of real estate interventions on organisational performance. *Journal of Corporate Real Estate*, Vol. 10 Iss 3 pp. 208-223
- [6] Geselschap, A. (2013). Het huisvesten van complexe organisaties: Het D3 sturingsmodel. Delft: Eburon.
- [7] Jensen, P.A. (2010). The facilities management value map: a conceptual framework. *Facilities*, Vol. 28, no. 3, pp 175-188.
- [8] Jensen, P.A., Van der Voort, T.J.M., Coenen, C., Von Felten, D., Lindholm, A.L., Balslev-Nielsen, S., Riratanaphong, C., Pfenninger, M. (2012). In search for the added value of FM: what we know and what we need to learn. *Facilities*, Vol. 30, Iss 5/6 pp. 199-217.
- [9] Jensen, P.A. , Van der Voort, T.J.M., Coenen, C., Sarasoa, A.L. (2014). Reflecting on future research concerning the added value of FM. *Facilities*, Vol. 32 Iss 13/14 pp. 856-870.
- [10] Joroff, M.L. (1993). Strategic Management of the Fifth Resource: Corporate Real Estate. Norcross, GA.: IDRF.
- [11] Kemperman, J., Geelhoed, J. en Op 't Hoog, J. (2013). Briljante Businessmodellen, een bijzondere benadering voor betere business. Den Haag: Sdu.
- [12] Kok, H.B. (2014). Facility management in Dutch Higher education. Wageningen: Wageningen University.
- [13] Krumm, P., Dewulf G., and De Jonge, H. (1998). Managing Key resources an capabilities: pinpointing the added value of corporate real estate management. *Facilities*, Vol. 16, no. 12, pp 372-379.

- [14] Lindholm, A.L., Gibler, K.M. and Leväinen, K.I. (2006).Modeling the value-adding attributes of Real Estate to the Wealth Maximization of the firm. Journal of Real Estate Research, vol. 28, no 4, 445-475.
- [15] Lindholm, A.L. and Laväinen, K. (2006).A framework for identifying and measuring value added by corporate real estate. Journal of Corporate Real Estate, Vol 8, no 1, pp 38-46.
- [16] Lindholm, A.L. and Nenonen, S. (2006). A conceptual framework of CREM performance measurement tools. Journal of Corporate Real Estate, vol. 8 Iss 3 pp 108 - 119.
- [17] Liow, K.H. and Nappi-Choulet, I. (2008).A combined perspective of corporate real estate. Journal of Corporate Real Estate, 54-67.
- [18] Miller, CC and Cardinal, L.B. (1994).Strategic Planning and Firm Performance.Academy of Management Journal, 37:6, 1649-1665.
- [19] Mocabach, M. (2009). Een organisatie van vlees en steen. Assen: Koninklijke Van Gorcum.
- [20] Nourse, H. and Roulac, S. (1993). Linking Real estate decisions to corporate strategy. Journal of Real Estate Research, Vol. 8, No. 4, pp 475-494.
- [21] Smeets, J.J.A.M. (2010). Sturen op Klantwaarde, instrumenten voor woningcorporaties t.b.v. een vraaggericht assetmanagement. Eindhoven: Universiteitsdrukkerij Technische Universiteit Eindhoven.Doctoraldissertation.
- [22] Van den Bosch, F.A.J. (1996). De andere belangen dan die van aandeelhouders. Management Magazine, blz. 8-12.
- [23] Veuger, J. (2014). *Materieel Immaterieel. Besturing van woningcorporaties in samenhang met maatschappelijke waarden*. Erasmus Research Institute of Management (ERIM), Rotterdam School of Management (RSM), Erasmus School of Economics (ESE), Erasmus University Rotterdam. Doctoral dissertation.