Modeling Sustainability Maturity in Corporate Real Estate

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Abstract:

Purpose: Sustainability in corporate real estate (CRE) has been lately recognized as an integral part of business almost at every enterprise, however, its perception might extremely differ in various industries. Sustainable CRE practices have been extensively analyzed in recent studies, yet real estate is an ambiguous field and the practices still lack of holistic understanding. The aim of this research is to summarize and systematize the present sustainable CRE practices and propose a generic Sustainability Maturity Model for Corporate Real Estate.

Methodology: Research process is implemented in accordance with Grounded Theory approach. Initial model is constructed based on findings from literature review and tested in interview session with some major Finnish companies, recognized for their environmental work. Theoretical sample of 10 companies is used for interviewees’ selection.

Findings: In the interviews, the most typical sustainable CRE practices are identified as components of the generic model. Structure of the model composes five maturity levels and six dimensions: resources, processes, commitment, communication, finance and strategy. The generic model contains 18 most typical sustainable CRE practices that explain the role of real estate at each maturity level.

Originality/value: The generic model is an indicative tool for sustainability maturity assessment in CRE. It provides a holistic and systematic approach to the present sustainable practices and demonstrates how CRE contributes to company’s sustainability. It might be applicable as self-assessment tool and as a benchmark because consists of the typical practices, pursued by the field leaders.

Keywords: Sustainability, Corporate Real Estate, Sustainable Practices, Maturity Model

Article Classification: Research paper
1 Introduction

Urgent need for sustainability was first announced in the Brundtland Commission report in 1987, which defined ‘Sustainable Development’ as a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World, 1987; United, n.d.). In 1997, John Elkington introduced a new concept of triple bottom line that is considering environmental, social and economic dimensions of sustainable development (Berkovics, 2010). Dyllick (2002) defined ‘Corporate Sustainability’ as a concept that integrates the economic, ecological and social aspects in the triple-bottom line and meets the needs of a firm’s direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups, communities), without compromising its ability to meet the needs of future stakeholders as well.

Sustainability in CRE has been lately recognized as an increasingly important area and is extensively discussed in recent studies. However, its components lack of comprehensive understanding and classification. Much uncertainty still exists about the relation between sustainable practices that belong to different maturity levels. Therefore, this research is aimed at summarizing and systematizing the present sustainable CRE practices and suggesting a generic Sustainability Maturity Model for Corporate Real Estate.

In this study, 11 sustainable companies in Finland are interviewed in order to test the initially created model. In the interviews, the most typical sustainable CRE practices are identified as components of the generic model. The focus of the study is on sustainability in CRE; sustainability-related issues that are not relevant to CRE are out of research scope.

2 Methodology

Research data is collected in semi-structured interview session with some major Finnish companies, acknowledged for their sustainability work. This type of interview provides a possibility to prepare discussion themes in advance, but also allows asking additional questions. Companies for interviews are chosen based on sustainability performance, ignoring the content of their property portfolios. Reasoning for the companies’ selection is rankings in sustainability indices, Corporate Social Responsibility reports, also participation in sustainability activities and organizations. Selection criterion for interviewees is their expertise either in sustainability or real estate management at particular company.

The research process is implemented in accordance with Grounded Theory approach, which is an advantageous technique of qualitative data analysis, when creating verified generic concepts. Figure 1 illustrates that the Grounded Theory research process consists of five steps: open, axial and selective coding phases and two intermediate steps, as defined by Strauss (1987).
Strauss (1987) emphasizes that coding is not only a method to categorize data, but also a technique of generating new concepts and findings. Generalization in terms of linkage and relationship between codes. Extracting the most typical features and patterns and identifying their connections is a key to solid theory, the generic model in this study.

Companies in Finland are interviewed to identify the most typical sustainable CRE practices. The scope of the investigation is 11 interviews as this amount provides sufficient data to observe existing patterns in the field and check applicability of the model. Single interviews are conducted with Public Agency (PA), Real Estate Company (RE), Telecommunications Company (T), Retail Company from food industry (R), environmental professional from consulting company (C), three interviews with banks (B1 and B2; bank B2 was interviewed twice) and three with production companies (P1, P2 and P3).

3 Maturity model

Sustainability Maturity is defined by Gabriel (2012) as a curve, linking four phases of the development process: compliance, communication, efficiency and cost savings, growth and innovation. Additionally, it is affirmed that value of sustainable business increases simultaneously with growth of sustainability maturity. In academia, maturity model is regarded as a framework that provides guidelines for process or product development. The purpose of model is aptly described by Morgan (2013): “it shows where you are today, where should go in the future, what is the value of doing so, and how to get there”. Maturity model provides a “big” picture overview, composed of small elements, and thus comprehensively explains how to implement the advancement of product or process.

Ordinary maturity model consists of 4-5 steps on the horizontal axis that refer to phases of development. Each step has a title, describing the qualities of product or process and defining the purpose of actions, taken at this phase. Such system is based on field leaders’ experience i.e., the steps refer to typical difficulties that arise in development process. The vertical axis consists of focus areas that vary in different models, depending on particular product, process, company or business field. These areas can be divided in two major groups. The risk-related areas, such as use of natural resources or impact on environment, indicate the weaknesses that should be eliminated in the development process. In contrast, opportunities-providing areas, such as marketing and partnerships, demonstrate potential to provide more advantage, and therefore should be developed at next maturity levels. Combined with maturity levels, focus areas further explain the aim of each action, taken in the development process, and demonstrate the benefits of maturity advancement.
Initial Sustainability Maturity Model for Corporate Real Estate

In respect of sustainability maturity, CRE does not differ from product or business because it requires dividing “big picture” in small elements (focus areas) and then collecting them into one entity. Figure 2 introduces the initial Sustainability Maturity Model for Corporate Real Estate, which has usual maturity model structure of five maturity levels and six dimensions (focus areas).

Figure 2 Initial Sustainability Maturity Model for Corporate Real Estate

‘Single Asset’ in this model means single property which can be either one building or a site; ‘corporate portfolio’ refers to all assets, owned or used by a company. The arrow between ‘single asset level’ and ‘corporate level’ demonstrates that sustainability maturity development from the base to corporate level is implemented through all 5 maturity levels. Similarly, corporate decisions, made at the highest maturity level, are applicable to lower maturity levels and single assets. ‘Value’ in the initial model refers to property value, which is a present worth of future benefits arising out of ownership to a typical user or investor (Real, 2010). Therefore, value protection at level 1 indicates attempts to save current utilization level of existing buildings. Increasing the value at level 5 refers to improving property qualities and property value, because of multiple sustainable CRE practices. It is assumed that level-1 practices are related to single asset; level-5 practices are corporately applied to the whole CRE portfolio.
**Maturity levels**

The initial model consists of these maturity levels:

- **Level 1. Recognize and minimally comply.** In the beginning companies take ad hoc activities in order to eliminate obvious ineffectiveness, such as users’ complaints and excessive energy usage. Practices at this level are reactive actions that aim at property value protection and compliance with legal requirements and regulations.

- **Level 2. Plan and initiate.** At this level, company attempts at planning and implementing basic saving practices and supports them by standard documentation, such as Environmental Policy.

- **Level 3. Measure and manage.** At this stage, focus is on performance tracking and multiyear data collection. Results of present practices are monitored and analyzed to increase management efficiency. In addition to this, required actions are planned and implemented for further improvement.

- **Level 4. Integrate and improve.** Increased efficiency of activities motivates companies to seek for possibilities to achieve even better results. At level 4, separate sustainable CRE practices are integrated to improve overall performance.

- **Level 5. Optimize and innovate.** At the highest maturity level, sustainability is managed corporately in order to optimize company’s overall performance and create portfolio-wide property value. It involves strategic activities, such as sustainability finance, performance benchmarking and innovations.

**Dimensions**

A variety of CRE practices imposes necessity for classification, and thus practices in the model are grouped into six dimensions that are as follows:

- **Resources** include natural resources, such as energy, water and waste. Human resources are assigned to Communication dimension, financial resources – to finance section.

- **Processes** consist of regular, continuous activities, related to resources management, maintenance, performance supervision and others.

- **Governance** includes documentation and standardization of the practices and management activities, such as management policies or buildings certificates.

- **Communication** contains interaction with stakeholders i.e., employees, owners, investors, customers, suppliers, community and NGOs. Communication with employees, owners and current investors is regarded as internal; external communication refers to other stakeholders groups.

- **Finance** includes sustainability finance related issues, such as financial impact analysis and investment planning.

- **Strategy** consists of strategic activities, for instance, “big” picture analysis, forecasting and determination of business vision, long-term and large-scope planning.
4 Results and discussion

Research findings are provided in the same order as discussed in the interviews. Firstly, the perception of sustainability and its relation with CRE are described, secondly, methods of sustainability measurement are discussed, and thirdly, sustainable CRE practices are summarized and systemized to the generic model. Findings from the empirical study intersperse with direct quotes from the transcripts of interview records.

Sustainability in General

The interviewed companies have recognized sustainability as an important issue for their businesses and affirmed that sustainability development requires integration with their activities and manner of people thinking. B2 notes that sustainability is a part of company culture and everyday life: “it is visible even in small things”. P1 claims: “we are trying to make more out of less, and if it is possible to do something, we do it”. However, perception of sustainability in CRE is different in production companies. “From production-oriented company point of view, we do see potential in real estate, but we need to prioritize our actions, and thus we focus on production”, is explained by P3.

It is also observed that the sustainable companies have remarkable knowledge in sustainability management. For instance, P2 states that it is secure to understand sustainability because “knowledge makes us capable of handling sustainability issues”. B2 notes that sustainable companies should take advantage of the expertise they have: “we want to utilize our knowledge, the potential that is if you really take Sustainability into account”. T emphasizes that “sustainability is something that cannot be added on later, therefore, experts need to be a part of any decision”. For this purpose, P3 pursues pilot projects in different sites, offices and production facilities in order to look how something should be done in other sites as well.

The interviews have implied that financial issues are very important to sustainability in CRE, because “in many cases, the main driver is cost”, was observed by company T. C also added that “economic incentive is usually the one that rules, social and environment should support it”. The reason for this was well explained by P3: “you need to think how to use limited resources in the company to meet the target, it is a question of prioritization”. Analogically, RE stated that “we try to maximize the value for our investors, so our business case has to show that we are able to achieve our promises”. Therefore, sustainability has to be proved by concrete business cases, as noted by B2.

It is remarkable that high sustainability maturity requires efficient communication with stakeholders internally and externally. In B2, “sustainability knowledge flows both ways: to real estate people and back”. The reason for this is that banks “production” is decision making, based on clients’ expectations: “sustainability in our company is so complex because our clients come from any field of business”. Therefore, only full commitment to the ideas and the practices generate the best results, C notes. P2 also affirms, “Our management is committed to environmental issues” and explains that it is a reason for achievements in sustainability. A typical sustainability development path was described by B2: “you first become aware and start thinking that you have already done it. Then you realize that you need to continue. Later on you struggle for integration, and once you get to the top, everyone is already a true
believer”. P1 emphasizes that it is important to define focus areas for sustainability because “it helps us and our people see the whole area in a very similar way and understand our goals and priorities”. This indicates that sustainability development is a composite process, which requires holistic understanding and systematic approach.

**Sustainability in CRE**

Most interviewees regard CRE as a very important issue for company’s sustainability. RE observes that “the relation between sustainability and CRE is becoming more and more important”. PA claims that “throughout the long life cycle, building has a significant impact on environmental, social and economic aspects; therefore, sustainability and real estate are naturally combined together”. It also adds that “from a long-run perspective, sustainability is a starting point for everything in real estate”. P2 emphasizes the benefits of CRE in sustainability: “it is a possibility to save in many ways and expand expertise in sustainability management”. Sustainability is seen as a comprehensive concept by B1: “we apply sustainability in all possible areas of our business. It is a part of everything we do, CRE in particular”. Similarly, R notes that “sustainability and real estate go hand in hand in all dimensions”.

T affirms that “sustainable facilities and operations support good image and allow company to communicate on its products and services sustainability”. P2 notes that “headquarters should be a model for the others”. It is also observed that sustainable CRE has become an expectation from a modern company, as it is mostly driven by demands from employees, tenants, investors and other stakeholders, according to RE. Besides, T perceives that “sustainable facilities and workplaces are the product/service that company real estate management provides to employees”. RE claims that sustainability improves quality of buildings: “sustainability in real estate means that the property is in a better shape”. Therefore, sustainability has positive effect on property value. For example, B2 affirms, “Sustainability is a lot of asset management because you need to work in sustainable way to protect value of your buildings”. On contrary, P1 declares that at production companies “real estate is just something that is there in place, but it is not the focus area”. Therefore, the significance of CRE to company’s sustainability varies in different industries, depending on what is the target area of particular business. Nevertheless, B1 claims that “it is easier to attach concrete measures and goals to a tangible asset”, and thus real estate provides possibilities to be more sustainable.
**Sustainability Measures**

Another important theme, discussed in the interviews, was measures of sustainability maturity in CRE. The respondents were asked about the best approaches to sustainability assessment and performance indicators.

**Sustainability measure has to be holistic**
- A bunch of definite, different indicators. (PA, T, P2, B1, P1)
- Thorough, company-wide system with different measurements. (R)
- Quantitative and qualitative indicators. (RE)
- Indicators reflect everything the company does and involve even smallest issues. (B2)
- Indicators of each focus area at the company. (P1)

**Sustainability measure – a combination of economic, environmental and social**
- A combination of economic indicators (e.g., measuring & benchmarking the economic results), social (e.g., stakeholders satisfaction), environmental (e.g., energy efficiency). (PA)
- Measure should consist of environmental, economic and social components. (T, R)

**Relative, not absolute figure**
- Indicator should be rational, not an absolute figure because of changes in businesses, economics and production volumes. (T)

**Other measurement suggestions**
- Measure – indication of total life cycle impact and its components. (T, P2)
- Measure – sustainability impact on value. (RE)
- Measure – sustainability awards. (B2)
- Measure – converting all measures into CO2 level. (P2)
- Measure – commitment and engagement of managers and employees. (R)

**Figure 3** Reflection of sustainability measures

As Figure 3 shows, sustainability measure should consist of multiple indicators, both qualitative and quantitative. It also should refer to the triple bottom line and include a set of economic, environmental and social indicators. In addition to this, interviewees provided some other measurement suggestions, such as awards for sustainability, measurement of sustainability effect on property value and total life-cycle impact calculation.
**Sustainable CRE Practices**

In the interview session, a great variety of sustainable CRE practices was discussed to find out what makes CRE sustainable. Figure 4 illustrates that there are eighteen the most typical practices at all interviewed companies, and they are included into the generic Sustainability Maturity Model for Corporate Real Estate.

![Figure 4 The most typical sustainable CRE practices at the interviewed companies](image)

**Generic Sustainability Maturity Model for Corporate Real Estate**

Previously introduced initial model was extensively discussed in the interviews. The respondents regarded basic structure of the initial model as logical and understandable; therefore, the generic model has the same layout. According to Glaser and Strauss (2010), researcher’s task in Grounded Theory approach is to explain the phenomenon, instead of providing detailed description. That is why the generic model, the result of this study, contains of the most typical sustainable CRE practices (figure 4) and is more applicable for general cases than specific problems. Figure 5 presents the generic Sustainability Maturity Model for Corporate Real Estate.
Some modifications to the structure of the model were made in order to improve it in accordance with interviewees’ suggestions:

- The ‘triple bottom line’ was included in order to demonstrate value creation by sustainability. It explains that in the beginning the driver is economic incentive, at later maturity levels environmental concerns are more important. Social aspects are included at the highest maturity levels when company aims at everyone’s commitment and full responsibility.
- ‘Governance’ dimension was substituted with ‘Commitment’, which refers to level of responsibility that any person has at the company. It better describes the nature of sustainability management and supervision. In the beginning, people, working with sustainability, are most motivated to implement new practices and take responsibility for that. At later stages, management level also gets committed to sustainability, and the rest of employees are engaged as well. At the highest maturity level, commitment refers to full awareness and responsibility of every single employee. It can be argued that sustainability begins from management-level commitment because sustainability-related decisions are first made at strategic level and then implemented by sustainability specialists. However, demand for management commitment is usually initiated by sustainability specialists that stimulate sustainability advancement.

- Each maturity level should contain all previous ones i.e., level 3 unites level 1 and 2. On one hand, it indicates that it is not possible to achieve the highest level if there are inefficiencies in the previous levels. On the other hand, doing well at the basics leads to greater maturity.

- Although each maturity level consists of the previous ones, regular updates are required at each level because they include different sustainable practices. For instance, if a new energy saving system is about to be installed, the decision is most likely made at level 5, but the need for it arises from level 1. It then goes through levels 2-3 until level 4, where integrates with existing practices, and improves the overall result.

- In the initial model, ‘value’ was defined as property value, however, findings from empirical study indicated that this concept should consist of multiple components. The generic model emphasizes ‘value’ creation by the means of sustainable practices i.e., demonstrates why companies should strive for greater CRE sustainability maturity. Components of ‘value’ at each sustainability maturity level are displayed by the triple bottom line.

5 Findings from the Research

This study implies that understanding of ‘value’, generated by sustainable CRE, varies in companies form different industries. Banks claim that value contains different sorts of benefits, such as financial, added value for the customers, brand value, transparency and trust. Production companies affirm that the meaning of publicly-listed company is to create the financial value for owners. It is also observed that in the beginning, value is related to small, saving-oriented actions; at top it is more sophisticated and complex, and thus generates multifarious benefits for the business. It is important to point out that sustainability must be beneficial, and thus sustainable investment requires business case approach. Also, when considering several investment options, sustainability is among the criteria, but not the main one.

It can be noted that companies, coming from various industries, tend to have different sustainability strategies. According to P3, “sustainability aspects, typically important for the CRE, are different in different companies, functions, units and individual actions”. Besides, some companies even do not recall the first steps of sustainability development because they integrated sustainability into their businesses years ago, and are much further now. Similarly, some interviewees have been working at particular companies for decades and do not know how sustainability is managed in other companies, and cannot properly compare themselves with peers. Moreover, most companies do certain things even without thinking, because sustainability has become a part of everyday life in Finland. Some CRE practices cannot be identified as sustainable ones because they are considered to be common activities, applied by most companies. On contrary, one interviewee declared that real estate market is not ready for more
advanced practices yet. It refers to the statement that it must be beneficial to be sustainable, and if more advanced practices do not generate more advantage, they are postponed to the future.

In this study, sustainability maturity of CRE at each interviewed company is estimated using the generic model. Figure 6 illustrates the results.

Figure 6 Sustainability maturity at the interviewed companies

It can be noted that sustainability is at advanced level at banks, even though the basic saving practices belong to level 3 and are used for continuous measuring and monitoring purpose. A wide extent of tactical practices is applied to improve the performance in both banks. Many of B2 practices from strategic, financial and communicational dimensions are at level 5, and therefore overall sustainability maturity is at level 5. B1 is at ‘integrate and improve’ level.

Observations from the interview with PA indicate that the majority of the practices are concentrated at maturity levels 4-5, at strategy and communication dimensions. Energy, water and waste management practices belong to lower maturity levels. Some of the practices also go through all maturity levels, and this indicates that PA applies corporate-level management.
Most sustainable CRE practices at T belong to maturity levels 4 and 5. This implies that this company has integrated the practices for overall result improvement, and also applies innovative ones to optimize the performance.

RE differs from others because it looks at real estate from investor’s, not user’s point of view. This firm is situated at ‘integrate and improve’ level, because managing real estate at this level is optimal solution in respect of returns for investors.

Practices at production companies are more scattered, but the greatest density is at level 3 at P1 and P2, and at levels 2-3 at P3. It indicates that the purpose of implementing these practices is to measure and manage the performance. The reason for this is that CRE is not a focus area in these companies, as previously discussed. These companies do not perceive real estate as risk generator, and thus it is not a priority for these firms. Nevertheless, real estate is involved in overall financial analysis and strategic planning and that is why most practices contain of all six dimensions, despite relatively low maturity status. It might be concluded that productions companies, ranked in Sustainability indices as industry leaders, do not necessarily possess sustainable CRE practices.

Findings from interview with R imply that there is a lack of comprehensive CRE management. Basic resources-saving practices still belong to lower maturity levels, whereas the density at communication, finance and strategy dimensions is centered at levels 4-5. Therefore it can be concluded, that stakeholders engagement and marketing are the key activities at R, from sustainability point of view. It is important to mention that especially large company’s property portfolio complicates sustainability progressing to higher maturity levels. Overall sustainability maturity is at ‘measure and manage’ level and is heading to level 4.

6 Conclusions

Selecting companies from various industries for analysis of CRE sustainability provided a possibility to observe phenomenon in the heterogeneous context. The results indicate that the level of CRE sustainability maturity highly depends on business specifics. Companies that recognize property as significant risk generator, pursue advanced sustainable practices to eliminate weaknesses and benefit from opportunities. If company is focused on product development, the greatest risks and value creation opportunities are associated with production process, and thus CRE is not a priority. It was observed that in most cases lower maturity practices are aimed at improving company’s own processes, whereas the purpose of advanced practices is to provide better service to the customers. All interviewees stated that sustainability and CRE are strongly related, however the understanding of sustainable CRE depends on priorities in different companies. PA, RE and banks regard real estate as a core issue of their business. On contrary, production companies focus on product facilities and CRE is not a priority for them. Nevertheless, all respondents have recognized that sustainability is an increasingly important area in all business fields, and thus its management requires holistic approach. Therefore, some of the interviewed companies have already established indicative tools for sustainable CRE management; others are under consideration of creating such tools.
The generic Sustainability Maturity Model for Corporate Real Estate consists of 18 most typical sustainable CRE practices that were identified in the 11-interview session with companies in Finland. Practices, belonging to the lower maturity levels, are easier to define and classify. At higher levels, they are more integrated, and therefore more complicated to analyze. Besides, some of the practices (i.e., waste management) are usually defined to lower levels because most companies do not regard it as a critical issue. However, this study demonstrated that solid fulfillment of the practice increases its degree of maturity. Therefore, it can be concluded that the level of maturity is approximately equal to the level of fulfillment i.e., well implemented practices have greater maturity. This study also implied that greater maturity is achieved by multiple sustainable CRE practices because they have different goals. Furthermore, a high level integration of these practices is required for achieving better results. Besides, effective communication with stakeholders and full commitment are attributes of great sustainability maturity.

The generic model demonstrates value of sustainable CRE at each of the ‘triple bottom line’ dimensions. Environmental benefits include efficient resources usage, the least possible life-cycle impact on the environment, sustainable workplaces and other issues, related to physical features of the buildings. From social dimension point of view, sustainable buildings provide employees with healthy and comfortable working environment, engage them to sustainability-related activities, and thus promote employee satisfaction and working efficiency. Sustainable CRE also contributes to economic results because of increased employee working efficiency, savings from utilities, positive effect on rent prices and property market value.

Personnel are an underestimated area of sustainability development, because many companies still do not realize the essence of everyone’s commitment. Nevertheless, this study revealed that most sustainable firms are people-aware and engage them in everything they do. When the communication is at a higher maturity level, it includes both internal and external stakeholders. There is an active interaction between employees and management team on one side, between company, customers and suppliers on the other side. Besides, advanced communication usually involves Sustainability Organizations and society. In addition to this, the interviewed companies have observed that sustainability has become an important issue in recruitment process, because company’s sustainability credentials are widely acknowledged by prospective employees.

Sustainability Maturity Model for Corporate Real Estate can be applied for internal discussions within different units to agree on common perception of sustainability in CRE. It is also a useful instrument in communication with stakeholders because it displays the current situation, determined goals and actions plan for their achievement in one place.

The model provides holistic approach to sustainable CRE practices. These practices are usually difficult to identify because of heterogeneity of existing building stock, however, the generic model consists of 18 most typical practices, pursued by Finnish sustainable companies in various industries. For this reason, it can be applied as a benchmark for the firms that have just started their journey to sustainability. Besides, it is an indicative self-assessment tool which encounters performance inefficiency and potential target areas for improvement. Companies that have already achieved remarkable results might compare themselves with general path and ponder further advancement.
References


