In this reflection the conclusions will be put in a broader perspective. Specifically they will be discussed along their scientific relevance, the validity of the findings, the practical application and the societal relevance. Finally some recommendations for future research will be made.

**Scientific relevance**
The main discrepancy that is found between the literature on the topic of real estate performance measurement and what was found in practice in this study is that the practice of performance measurement is much more troubled by practical considerations that complicate even the most basic benchmark. The theory that was studied is mainly geared towards an idealistic idea of how it should be structured. In practice however, practical concerns like a lack of the availability of data, problems with database integration or differing definitions cause managers to mainly focus their efforts on still getting the most basic benchmarks right.

Overall, it seems the complexity of benchmarking is still undervalued in the studied theory. In the literature, a lot of attention is given to the fact that indicators should be derived from organizational drivers and values and a lot of possible indicators are provided. The difficulties in actually implementing this is given less attention. During the discussions with real estate managers in the field, what often dominated the discussion was the difficulties that had in setting up the benchmarks and extracting meaningful data from it. So there is a discrepancy here in the focus of the theoretical research and the concerns of practitioners and thus a large opportunity for further study and possible gains.

In the theoretical exploration, Srimai et al (2011), concluded that general performance measurement for businesses has had a steadily increasing focus on non-financial, value based indicators in order to provide balance against financial indicators. If we contrast this with the performance measurement for real estate as found in the companies in this study, we can conclude that the sector still lags behind these general developments. It is, perhaps because of pressure from above, still mainly focussed on quantitative and financial data and very little qualitative indicators are used.

When we look at the way the benchmarks are put to use in practice, it is found that this strongly concurs with the findings in the theoretical exploration. Waggoner, Neely, and Kennerley (1999) argued that performance measurement in business serves the purposes of monitoring performance, identifying the areas that need attention, enhancing motivation, improving communications and strengthening accountability. In addition to this list, for real estate department not only improving
communications but also proving the performance of the department turned out to be an important additional use.

If we look at the study done by Jones Lang Lasalle in which one fourth of real estate managers reported their available information as ‘poor’ and three quarters consider it no better than ‘fair’, this also somewhat concurs with the findings. While this question was not asked specifically in the same way in this study, only a few companies expressed a high amount of confidence in their data for the basic benchmarks. This seems to indicate that there has been no significant improvement since the study done by JLL.

**Validity of the findings**
This study consisted of mainly qualitative, interpretive research and the results should be seen in this light. The conclusions that are drawn from these however have to be seen in the light of the type of research that is conducted. As explained by De Vries, real estate research is often hindered by the fact that the environment is so complex, with many influencing variables and that sample sizes are usually small. In this study this was certainly the case. The amount of variables that can have an impact on the benchmarking practices of real estate management departments is significant. Additionally, CREM departments operate in a complex corporate environment and often have multiple reporting lines. The conclusions on relationship between these variables thus are only preliminary and should be seen more as possible hypotheses for further research. However, as this was a qualitative study, the topics were explored in depth and the conclusions that are drawn are plausible when seen in the context of the preceding research and expectations.

One possible factor that could have influenced the research is that employees of Johnson Controls make up a above average share of the respondents and thus a certain bias could be introduced here. Care was taken as much as possible to prevent any possible bias this may have caused by taking this into account when analyzing the data and by including companies in the study with a profoundly different structure and focus than Johnson Controls.

**Practical application**
As the study showed, there are still a lot of gains to be made when it comes to real estate benchmarking in practice. The findings show that a large number of corporate real estate departments are still working to implement the basic benchmarks of cost, space and FTE’s. The practices of current best performers in this area and the possible hurdles that they might encounter that have been identified in this study can help organizations to more efficiently set up or improve their benchmarks and can help them avoid the common pitfalls.

The current Benchmarking practices of CRE departments have been compared to each other and to current theory. Using this information, companies can gain a clear picture of where they stand in regards to the competition and what possibilities for improvement there are for their benchmarking practice. Additionally, a clear inventory has been made of the costs and benefits of benchmarking, the possible uses for the gathered information and the possible hurdles that can be encountered. Because of this, companies might be better informed in setting up their Benchmarks or deciding whether Benchmarking is suitable for them in the first place.

Finally as shown, it is crucial to have a clear use for the benchmark you are going to implement ahead of time. The list of possible uses gathered here can help companies specify the way they want to use the benchmark. In this way they can thus avoid wasting time and energy into misguided research.

**Societal Relevance**
Real Estate performance measurement in general is aimed at identifying inefficiencies in the portfolio. Any improvement in the practice of performance measurement itself might lead to these
inefficiencies being identified more effectively. Real estate is an extremely resource intensive asset class. Therefore if these efficiencies are identified and can be corrected, this can free up a lot of resources that are currently tied up in it.

Firstly this can obviously help to create shareholder value. By generating these savings and freeing up this capital, this can then be used in the companies core business at a potentially higher return or might just be returned to the shareholders. In an enviroment of efficient competition this might also improve the opportunity for the company to compete on price and thus drive the price of the products they make to the consumers down. In this way this can ultimately aid the consumer. Since resources are getting increasingly scarce, any efficiency gains in a resource intensive sector as real estate thus also can have a substantial impact on the environment and the sustainability of the sector.

A different societal advantage that may arise could come from a shift towards a more integral approach to performance measurement. Upper management in most companies is currently mainly focused on reducing the cost instead of seeing real estate as a means to create value. If for example workplace satisfaction would emerge as a more common benchmark in the near future, this focus might shift and this could potentially lead to an improvement in working conditions and work satisfaction for the employees.

Recommendations

During the course of the study, a number of interesting areas in which further could be conducted could be identified.

Firstly, now that there is an overview of which indicators are used the most, it could be interesting to do a larger scale, quantitative study in which these most common benchmarks would be looked at more in depth. These could be analyzed on how complete and valid the information is that managers have on them in a more quantifiable way for example. And the actual averages of the benchmarks could be analyzed.

This study shows that research on helping CREM departments setup the basic benchmarks in a well structured manner might be an interesting area of study. Since many companies are still in the beginning stages and are often experiencing difficulty in implementing it, this might be of practical use. Specifically the way to ensure that the benchmarks are defined consistently throughout the whole portfolio, especially internationally is an area of great interest to real estate managers and is an interesting area to explore.

The new ways of working often complicates the use of certain benchmarks. Because people no longer work in a specific location and workstations are shared, the relationship between variables are changed. This is an area in which multiple managers indicated they would like to see more research about the ways to handle this problem.

Finally, another interesting fact is that most managers express the desire to have better external benchmarking data. However currently this is problematic because of the problems of confidentiality and because the results are often mistrusted. Perhaps an independent entity like a university could have a role in starting to solve this problem.