Input to the FM/CREM research agenda

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Despite the possibility to work anywhere, the office and its workspaces remain an important resource to influence organizational performance and fight in the war on new talents. Therefore, it is good to notice that the issue of how to manage the workplace is discussed in more board rooms than ever before. However, to be able to decide on how to allocate costs in order to achieve optimal benefits, full insight in relationships between physical work environment input variables and organizational/employee outcome aspects is crucial, and of course leaving the question open whether full insight can be reached on a certain moment in time. As a good insight is often lacking, many office design business cases and the decisions that follow from those, are still made under great uncertainty and mainly based on gut feeling instead of the best available knowledge (evidence). Several common struggles of corporate real estate (CRE) and facility managers (FM) appear to remain unchanged over the past decades. This triggered the authors of this paper to try and identify which topics are currently the most important struggles in practice, and how future research could provide insight into these topics? This article describes several activities organized by the authors to answer this question. The results provide input for a future FM/CREM research agenda.
First steps towards a Workplace research agenda

While celebrating its 15th anniversary with a symposium, the Center for People and Buildings not only provided its guests with an overview of research results on workplace issues of the past years, it also presented a 10 point future research agenda. This presentation (November 2016) was the starting point of a market consultation broadening, deepening and prioritizing the research topics and questions. About 50 organizations accepted the open invitation and took part discussing the issues at stake. This consultation process resulted in a short list of 6 topics to work on in the future: Organization of work/New work practice, Individual Behavior in the Workplace, Flexibility, Vitality and Health, Smart Business Cases, Implementation of Work practices and Work Environments.

Despite the fact that the steps taken so far contained the input of many end-users, consultants, service providers, furniture companies, etcetera we still wanted a more considerate review. We took a two-step approach, first a debate amongst personally invited well known critical Dutch practitioners and second but separate from practice people a ‘tour de horizon’ discussion with international academics: ‘are we on the right track with our choice of research topics?’

Narrowing the scope and prioritization of issues

The first step taken was to hold a brainstorm with people from practice (May 2017). The aim of this meeting was to organize an interdisciplinary discussion between academics and practitioners, to share ideas about current dilemmas and topics for future research into workplace management. Participants represented workplace managers from public and private parties, workplace consultants and –academics. All participants described the topics they are struggling with and what they would like (academic) researchers to study in the near future. After this introductory round, topics were grouped and prioritized.
The prioritizing round showed a clear top 4 of important areas for further research:

1. **User behavior**: How should the use of the office environment be steered towards both employee effectiveness and a positive attitude toward the offered workplace?
2. **Business cases**: What does an integral business case comprise on the short and long term, with a balanced interest of different stakeholders?
3. **Productivity**: How can the workplace increase productivity of knowledge workers?
4. **Health**: How can the workplace support employee health and wellbeing?

With regard to the first research area, user behavior, both individual and team behavior issues came forward. For the former, companies are struggling with resistance to the implementation of new (often more flexibly used) work environments. CRE and facility managers are looking for ways to influence employees’ workplace choice behavior towards using such environments the way they were meant to, while reckoning with personal and cultural differences in preferences. Regarding teams, companies not only struggle with how to support things like social cohesion, team spirit and collaboration with the physical work environment, but also how to be agile in this support since teams are changing rapidly in organizations these days.

An integral business case, topic two, does not only need to have a wide scope, but at the same time it has to be feasible to use in practice which is a big challenge. It is not easy to put the costs of providing work environments that would support wellbeing (maybe it does not support it at all), the brand of a ‘great place to work’ and productivity outcomes better, against these usually non-financially expressed organizational benefits. The fact that the added values achieved this way are prioritized differently by employers, employees and customers from the same organization further complicates the case. It therefore still remains far from clear to FM/CREM how to promote and prove their worth in value engineering versus just limiting costs. Short term gains and costs must be positioned against (generally) long term effects, but measuring for both sides of this equation defines the challenge for researchers.

Two long term effects received so much attention in the brainstorm, that they received position three and four in the prioritization, respectively employee productivity and health. Regarding productivity, FM/CREM is still experimenting to find out what works, what not and why. Because knowledge worker productivity is hard to quantify and influenced in many ways, the challenge will be to provide at least plausibility in reasoning and if possible hard evidence for this. Specific concerns mentioned were how to increase (perceived) personal control and choice and how to create a better balance between concentration/privacy and communication.
Regarding employee health, both the effects of the physical work environment on physical and on emotional health needs more research. Where actual illness has been studied for decades (e.g. sick building syndrome caused by/ correlated with indoor climate design), current society demands more insight in concepts that are harder to grasp, such as the effect of rest, nature and peace and quiet (concentration) on values like employee productivity, wellness and happiness.

**Suggested research approaches**

As the list of issues was long, the next step was to ask workplace academics to think about this top four in another brainstorm among researchers only. This brainstorm was organized as part of a special workplace research track during the 24th European Real Estate Society (ERES) scientific conference (June 2017). Nineteen workplace researchers from very different disciplinary backgrounds and countries agreed to participate in this brainstorm. They were asked to discuss more specifically (in four small groups) what still needs to be studied in the topic area of their choice/specialty. The results of that brainstorm were converged to two future research questions per topic area. Next, they discussed what methodologies could be used for such studies and which stakeholders and academic disciplines should collaborate in these studies.

Regarding the topic of user behavior, the researchers suggested to study:

a) How do users perceive choice?

b) How to give people feedback on how they use space (to make them aware of their own habits)?

Especially for research question b), it is important to objectively measure behavior, for example through a combination of sensors and diaries. Important stakeholders in both studies would be researchers with a background in consumer research, psychology, marketing, hospitality, IT, and human resources. Also, data scientists/coders would be essential and above all, users that are willing to participate in the studies.

The group that chose the business cases topic wondered what we really know about business cases and questioned whether business cases have actually been empirically studied at all. Therefore they focused on this one research question only: ‘How are business cases conducted in practice?’ Due to the sensitivity of the data and for reasons of confidentiality it is not an easy study subject. Open questions may help to understand the process, but are insufficient to understand the outcomes, like cost data and internal rates of return. Also, it is essential to know how to monetarize non-financial revenues and intangibles. So the client needs to be highly involved in the research design, which makes it essential for the researcher to know “what’s in it for them?” Besides the necessary CREM/FM expertise, the research team should have sound knowledge of strategic management, business administration and psychology.
Regarding topic 3, knowledge worker productivity, the group discussed the need for a further identification of different types of knowledge workers, including a characterization of work-task-types according to preferences, personality and other individual parameters. To identify relevant KPIs in order to make the business case, they questioned whether productivity or performance would be the right goal. Where productivity is ‘output’ focused, knowledge work is more ‘outcome’ focused thus performance might be a better term here. Therefore, they suggested to study:

a) How to create a basic model of dimensions, including types, environments, phases/processes, etc?
b) How to measure “productivity”/“performance”?

Such studies could contain industry workshops, focus groups with different types of knowledge workers, international Delphi studies, and (VR-) experiments. They desire a combination of real estate-, psychology-, social sciences- and economy scientists with industry managers.

With regard to the topic of employee health, the researchers suggested to study:

a) How to create inclusive work environments/ecosystems (including the ageing workforce, vulnerable groups etc.) with the use of innovative management topics (biophilia, taking a nap, etc.) and technologies?
b) Creating a value map for so called ‘healthy’ work environments, balanced for different aspects and different types of locations people can work at.

Besides literature review and experience sampling, approaching this topic with living labs seems very interesting. Again, a transdisciplinary team would be preferred, including expertise on occupational health, HRM, psychology and medical science.

Also, it would be beneficial to include associations that know specific needs of their (vulnerable) groups.

To conclude

As the awareness is here that the place where work is carried out plays a vital role in supporting and attracting employees, it is important for the CRE/FM field to remain at the board room decision table to tackle (at least some of) the ongoing issues identified in this article. The brainstorm sessions have further strengthened our believes that worker behavior and social, physical, technological and managerial aspects of the workplace need to be combined in future studies. Hence, a transdisciplinary approach seems the only possible approach to advancing the field by tackling the issues on this future FM/CREM research agenda. Until now different aspects of the workplace are mostly studied within separate academic and professional fields. Also, collaboration between academics and practice in research is not always easy, and the dissemination of available knowledge to practice could be much better.
That is why one of the authors of this article initiated a new Transdisciplinary Workplace Conference (TWR), with the intention to bring together workplace researchers and professionals from all relevant disciplines to share their insights and ideas. We hope to attract presentations on research findings regarding the physical work environment (e.g. facilities management, real estate, architecture and design, building physics (HVCSE), bio-technology, social work environment (e.g. HRM, behavioural sciences, organisational science, business, health, environmental psychology), digital work environment (e.g. ICT, virtual reality), and work environment management (management, economics) issues. TWR will be held in Tampere, Finland from 19-21 September 2018 (see www.tut.fi/en/twr2018 for further information), after which it could become an (bi-) annual event. Hopefully, this event will provide the opportunity to discuss further enhancement of the field and to jointly identify future roadmaps for the topics discussed here (and other related themes). It will definitely provide the opportunity to form and join transdisciplinary, international research initiatives that will provide the field with interesting, innovative findings these coming years.

In the meantime the Center for People and Buildings will continue to organize research projects, programs and consortia with the help of this Workplace /CREM &FM-agenda. The authors expect the agenda to provide guidance to the development of applicable knowledge, data and tools for the benefit of the end user: a better working life!

1We intended to write this article together with dr Theo van der Voordt; Theo had just returned home from hospital treatment when we drafted the text. However we acknowledge Theo’s valuable contribution in thinking about the content.