HOW FM MAY CONTRIBUTES TO HAPPINESS - THE OSCAR APPROACH

Svein Bjørberg

Professor, Norwegian University of Science and Technology, Trondheim, Norway

svein.bjoerberg@multiconsult.no

+47 91535547

Alenka Temeljotov Salaj

Professor, Oslo and Akershus University of Applied Sciences, Oslo, Norway

alenka-temeljotov.salaj@hioa.no

Anne Kathrine Larssen

Phd, senior consultant, Multiconsult ASA, Oslo, Norway

anne.kathrine.larssen@multiconsult.no

Knut Boge

Associate Professor, Oslo and Akershus University College of Applied Sciences, Norway

knut.boge@hioa.no

ABSTRACT

Purpose: "Oscar" is a research project started in 2014 for a period of four years with the objective to develop competence, methods and analysis tools, to optimize building design in a way that it will contribute to value creation for the owner and end-user throughout the buildings lifetime. From this context the Oscar concept could be translated to value for achieving "happiness".

Background: Norwegian Government`s White Paper, Stm 28 (2011-2012) "Good buildings for a better society – A future looking policy" gives aims, instruments, recognition and guidance on how to achieve good processes, stakeholders and built environment. Main focus in this policy is how governmental measures can be adapted and used to achieve sustainable buildings.

Approach: The project has a mixed approach with structured literature review, a national questionnaire survey, interviews and series of workshops with relevant persons based on their formal roles, expert knowledge and experience.

Results: The paper presents findings from literature review, survey and workshops.

Practical implications: This research provide guidelines concerning how FM can contribute to value creation.

Keywords: value creation, facilities management, happiness, users, owners

1   INTRODUCTION

It is acknowledged that there is coherence between how we design and how we operate, maintain and enhance our buildings and what values the building (space and infrastructure) create for those using, managing and owning the space. "Happy users gives happy organizations (core business) and owners".

The research about workplace happiness (Andrew, 2011, Diener, 2000) shows that happiness is an entirely subjective feeling of well-being experienced by the person, characterised by the presence of positive emotions and the absence of negative emotions. The positive characteristic of orientations to happiness that proposes different pathways to happiness may contribute to work-related well-being (Johnston at al, 2013). One of the proposals includes the pleasure orientation suggestions that the maximization of pleasure and the minimization of pain are the chief route to happiness, beside engagement at work and living in accordance with individual's virtues (Peterson, 2005, by Johnston at al, 2013). Interventions, which draw individuals' attention to pleasurable, meaningful or engaging aspects of their life, had the potential for increasing well-being (Giannopoulos and Vella-Brodrick, 2011, by Johnston et al, 2013). Sharifirad (2013) states that employee wellbeing attracts much attention of researchers, for the sake of happier and more productive employees. Happier people are found both healthier and more productive (De Neve and Oswald, 2012). A research from the University of Warwick shows that happiness treatments improve productivity by approximately 10%-12% (Oswald at al., 2014). Anchor (2010) says that happy companies increase sale by 37%, productivity by 31% and accuracy of tasks by 19%. When we are positive, Anchor states, our brains become more engaged, creative, motivated, energetic, resilient, and productive at work.

Chuluun and Graham (2016) researched financial issue of happiness and more over-arching concept of subjective well-being that attracted significant attention. Their research explored whether the externalities related to happiness at the societal and individual levels relate to firm decisions. The findings show that average local happiness (happiness inequality) is positively (negatively) correlated with both R&D intensity and firm investment. Firms in happier places, tend to invest more than firms in less happy places, and it was found that younger firms' investment behaviour more strongly correlate with local happiness levels.

Warr (2013, by Rodrigez and Sanz, 2013) explains that happiness and unhappiness clearly derive from two main sources: job characteristics and within-person mental processes, and in order to understand and enhance worker happiness and well-being, it is essential to examine patterns between those variables and happiness. From the Rokeach theory of value (1960), which stresses the more desirable individual and social forms of behaviour, we know that 'every environment surrounding 'humanity' has certain features, characteristics that need special attention, simply because they are very important for humans, their life, survival, living, leisure and work' (Temeljotov, 2005). Our physical surroundings have an impact on individual's satisfaction and hence happiness. Happiness at work would imply to experience high levels of pleasure and moderate levels of activation (Bakker and Daniels, 2012, by Rodrigez and Sanz, 2013).

From the workplace perspective, happiness is connected with well-being, employee's physical health, psychological health, physical safety and wealth (Andrew, 2011). Happiness includes many 'work' factors, such as work enjoyment, -enrichment, -relationships, -life balance, -variety, -teams, -recognition, -reward, -meaningfulness, -engagement, -equity, workplace leadership and -community. The mottos in happiness environments are 'happiest minds', 'healthiest hearts' and 'harmonious lives'. There are different ways to achieve happiness, from providing nicer offices or entertainment to securing a good pension scheme, higher wages and other benefits, and guaranteeing a good level of stability (Allen, 2015, Oswald at al., 2014). Another way is acting 'to create happiness at work' suggested by Kierulf (2016): random acts of workplace happiness, hire happy people, stop negative behaviour, celebrate success and celebrate mistakes. Allen (2015) suggested four key areas to focus on: autonomy (feeling of control), relationships (liking

colleagues and supportive and friendly environment), progress (against goals they care about), and meaning (feeling work has a purpose).

Cloutier and all (2014) presented a Sustainable Neighborhoods for Happiness Index, with an increased focus on happiness. The methodology requires communities to look critically at the current state of their neighborhood, while implementing systems-thinking and analysis for how to best improve. It allows communities to improve the overall happiness of residents through a shift toward sustainability. Presented urban happiness measures are: walkability, orientation, use of native vegetation, green space connectivity/ biodiversity, access to nature, and measures of social capital. The one oriented on buildings are: number of other green certified buildings, percent of green government buildings, and number of green building business in community. Practice shows an increasing focus of users and owners on how buildings affect the core business due to changing demands over time. By developing a better understanding of changing demands from the core businesses, it will be possible to make some assumptions on possible future needs. This leads to the need for "adaptability" of buildings to upkeep the usability, and ''sustainability'' as the interaction of economy, environment and social aspects. If changing demands are not met by adaptability, the economy and use value will decrease. The same applies if facility management does not upkeep the buildings' technical functionality and standard. This will cause accumulated needs for maintenance and upgrading which in turn affect environmental and social issues. Totally, it will affect all value aspects. As stated in Norwegian White Paper (2011-2012), life cycle planning and economy is essential.

Larssen (2011) argues that in order to allow for elaborating a more professional and strategic facility management, it is necessary to develop a new understanding of roles for facility management. A central element for such new understanding of roles is the focal shift from a responsive role with an operative perspective and major emphasis on costs towards a more active role and a strategic perspective, where more emphasis is put on the effects on the organization of core activities and FMs contribution to added value. This is in line with several other researchers' conclusions (Valence 2005, Jensen et al. 2008, Jensen 2009).

3　　APPROACH

The research project "Oscar – Value for User and Owner of Buildings" (2014-2017), with the main intention 'to develop competences, methods and analysis tools for optimizing building design in a way to contribute to value creation for owner and end-user throughout its life time'. The Norwegian Research council supports the project.

The project takes into consideration a clear connection between the design and operation of the buildings and values for the owners and users. To achieve value creation processes, it is necessary to have competent actors who have good tools for decision and communication through projects and processes. The research findings in Oscar project are a result of cooperation with 17 project partners from three countries from academic, private and public sector from all stakeholder groups. In accordance with findings from literature review and purpose of the project, the relevant stakeholder groups are owners, users, planners/designers, consultants and contractors, universities and FM providers.

The Oscar project contains three main work packages (WP) (see figure 1), with a goal to: define the knowledge how to contribute to value in user phase as input in Early Design Phase. Focus is on characteristics, which contribute to value creation (WP1), define execution models and

processes, which contribute to value creation (WP2) and design methods and tools with focus on safeguard and guide the process to obtain value for users and owner (WP3).
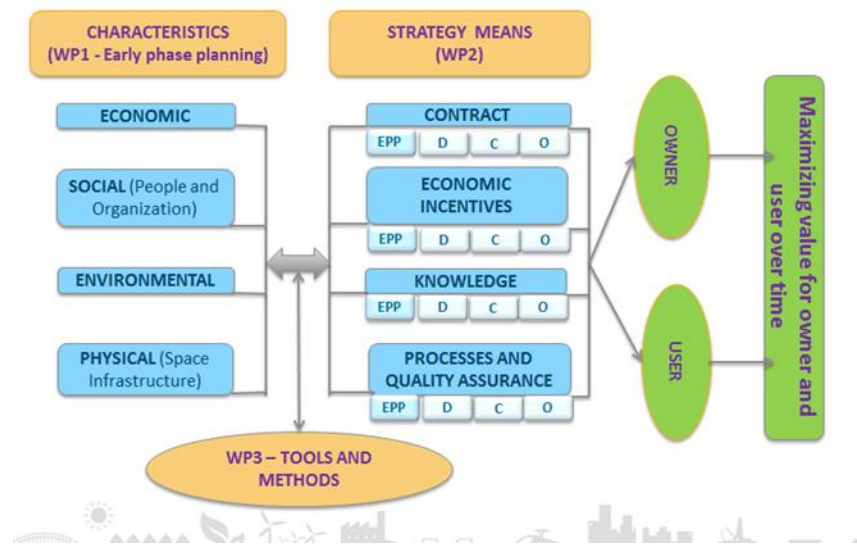

Figure 1: Value contribution model

4   RESULTS

For early phase of projects (until investment decision is made), it is found, not surprisingly, that competences have an important role. It is seen that some improvements are needed for: experience, higher responsibility, clarification of project organization, increasing of multidisciplinary understanding, better project manager's competence, including FM experiences in early phase, better competence of LCC, more focuses on value for client/ owner/ user. All this competence must be a part of early design phase. There is also needs for processes, methods and tools supporting early phase and needs for instruments and incentives to strengthen behavior to achieve common goal. In the following some main findings are exposed.

4.1   Findings from the literature

"Value" is not a clearly defined concept. The word is often used within FM, but seldom accompanied with an explanation. Value management is by several researchers and practitioners pointed at as the new direction for FM (Coenen et al. 2012, Jensen et al. 2013, Finch 2011). From the literature, we find a wide specter of approaches and definitions, depending on context and perspective. In Oscar it was concluded to use the following definitions:

- Value – has to be defined in each case. It should be the strategy that reflects owners' (and users') value in the actual project, which can be translated to characteristics.
- Value creation: the process needed to achieve value.
- Added value: innovation and possibilities throughout the project process which can increase value outcome.

Within the first phase of the Oscar project, a list of characteristics and means was found from literature review, which can be important for the value creation.

4.2   Findings from questionnaires

Several questionnaires have been conducted where questions was in 5 main groups; economy, environment, social, physical and obstacles (to obtain value creation). In table 1 some main results from those groups are shown.

Table 1

Aspects	Highest importance	Lowest importance
Economy	- Investment costs - Effect on core business - Energy cost - Net present value of cashflow (NPV) - Life cycle cost (LCC)	- Market value in case of sale - Cost efficient services (soft FM) - Yield - Cost of workspace in user phase - Cost efficient cleaning
Environment	- Indoor climate and comfort - Energy efficiency - Use of materials and components with long life in use - Use of renewable energy resources	- Use of recycled / recyclable materials - Environment certification - Greenhouse gas emissions during buildings life - Facilities for efficient waste management
Social	- User involvement - Security and safety (unwanted incidents) - Architectonic qualities - Owner governance - Interior qualities (well-being and tidiness)	- Facilities for physical activities (gym, wardrobe) - Individual operation of sunscreens, light, temperature - Promoting pride (organisazions cultural values) - Orientable (intuitive signs)
Physical	- Accessibility and universal design - Area use (logistics, movements etc) - Suitable materials for intended use and life-span - Technical condition in case of transformation - Flexibility (possibility to change space distribution)	- Generality (possibility to change function) - Innovation - Life cycle planning, integrated architecture and technology - Parking facilities
Obstacles	- Lack of adequate and clear order for the project - Lack of competence on user phase - Lack of multidisciplinary understanding in project organization - Insufficient organization of the project	- Technical professions are dominant - Too much emphasis on technic and cost - Insufficient use of digital tools for decisions - Architect profession has a dominant role

The ten aspects with highest total rank on the question "based on your experience – to what extent were these aspects emphasized? (scale limited (1) - high (4))" (Perspectives: E=economical, EM=environmental, P=physical, S=social):

1. Investment costs (E)
2. Effect on core business (area utilization, logistics, workplace design) (E)
3. Energy efficiency (EM) (High demand level in legislation)
4. Indoor climate and comfort (EM) (High demand level in legislation)
5. Accessibility and universal design (P) (High demand level in legislation)
6. Energy costs (E)
7. Area use (logistics, movements of persons and transport of goods etc.) (P)
8. User involvement (S)
9. Security and safety (S)
10. Workplaces facilitating flexible ways of working (S)

Except from number 1, 3 and 6 all of these aspects can be highly relevant for the effect on end-users "happiness". The high focus on 4 Indoor climate and comfort and 5 Accessibility and universal design is natural, since Norway have strong public regulations in these areas. The negative effects on human beings due to poor indoor climate are also well documented in literature.

4.3   Findings from workshops and interviews

Several workshops executed within the partner group has given lot of findings and confirmation of upfront assumptions. In addition, there has been 12 master students and 12 bachelor students connected to the Oscar project. The latter group, in addition to literature study and questionnaire, they also have implemented interviews. Main important findings to be considered in early design phase are (not ranked):

1. Clarify project strategy (value aspects) from client. It is a big difference on making design for todays need or for future needs.
2. Think of building elements / systems in three groups; never seen again (cannot maintain or replace), can see and maintain (but not replace) and can see and do whatever we want.
3. FM and end user as important players. Ensure that those represent competence for how core business function and core business strategy. Also competence within design- and construction process.
4. Make premises document for MOMH (management, operation, maintenance, enhancement)
5. Adaptability should be considered if core business often change demands (hospitals, schools, some offices, terminal buildings at airports etc).
6. Competence in design group should reflect client's strategy (value) for the project. Project management role is of high importance. It should not only be technical / economical but also social, environmental, core business logistics and users need.
7. Project team should work in same room with same tools.
8. Core business user representative must have competence for involvement (not only because of rang). Important for logistics (local in an department / working team and global between departments).
9. Consequences for core business (efficiency in work processes / logistics) and FM (more operation / maintenance costs) should be clarified when cut in investment are done.
10. Good indoor climate and possibility to regulate by users.

4.3   Findings for establishing happiness

"Happy users gives happy organizations (core business) and owners" is one of Oscar projects working hypotheses. From all the findings, we can conclude with some main statements that will contribute to "happiness":

1. Logistics for working processes
2. Adaptable building to upkeep work efficiency when changes in core business is a demand
3. Good indoor climate and individual regulation of temperature, sunscreen and air flow
4. Good communication / response time with FM when assistance is needed.
5. Upkeep quality in workplace surroundings by preventive maintenance.

All stakeholders in strategy, planning, design and construction should

- **harvest experiences** from use phase on how building works (functionality) for individual persons, working team, an organization's core business and FM activities
- **harvested crop** when designing new buildings as well redesign for refurbishments
- **take the crop** into the development process from design to end of construction to ensure that the crop will give happiness.

5   PRACTICAL IMPLICATIONS

Based on our findings so far we suggest some central areas for development of FM competences in the context of contribution to achieve end user happiness:

- Employee's way of working and their activities in connection to the workplace must be clarified regarding what are the needs today and hanging needs in the future. For existing buildings, clarify how suitable the premises are today.
- Make regular measurement of user satisfaction to follow up and have dialog with as a base for improvements. If happiness has such a strong causal effect on productivity as indicated by Oswald et al (2014), Kierulf (2016) and Allen (2010) this is crucial.
- Competence on how the physical environment affect human beings - physiologically and mentally. Hygienic factors (such as indoor climate) have negative influence if they are not adequately present. Too low temperature, draft, noise, lack of daylight e.g causes discontent and therefore may result in negative effect on productivity. Other factors, such as view, aesthetic qualities, natural elements etc. can on the other hand contribute positively to wellbeing if present.
- Knowledge about the premises characteristics to adapt new demands from users. In order to sustain user satisfaction over time the premises might have to be developed and transformed in accordance with the changing demands.

The suggested future role of FM in the happiness perspective should be:

- Search for improvements and identify need and potential for changes in existing building portfolio – measuring user satisfaction and regular dialog with users.
- Consider the potential for adaptations and development of existing premises (adaptability, alternative use etc.) so that user satisfaction can be maintained over time.
- Get involved Involvement in early phase planning of projects - transfer of experience from operational phase.
- Demonstrate the cost/benefit and added value (both quantitative and qualitative methods)

Further work in Oscar will be focused on developing methods and tools that can support FM in such a role. In addition, further research, preferably in other countries than Norway is necessary to investigate whether we have stumbled across some general patterns concerning value creation from RE and FM, or if the findings are site and context specific for Norway.

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