

Short Practical Report

Integrated Facility Management- Added Value By Innovation

Udo Priess, UPReal, Germany

Abstract

Classically we divide the Facility Management into the three areas Infrastructural, Administrational and Technical. The new and innovative approach starts in the pre-project phase. The innovative way to design Facility Management Projects is to start with a system that allows getting a better base for evaluation and decision-making. TEDS® – Total Evaluation and Decision Square – is our own developed system which covers the four areas CONTENT, PROCESS & PROJECT, FINANCIAL and STAKEHOLDER. The system is database-based with a huge number of parameters for every cluster. In a customer management project set-up workshop the relevant parameters will be determined. Based on that determination we get the first desired value square. The SQUARE is a graphical translation which gives us a very fast and easy to understand value picture. In a second workshop the parameters will be rated and with that ratings we get the result squares. With the SQUARE graphics we have an instrument that shows us if all weighted and rated parameters are finally set the cluster into green light. With a consequent usage of TEDS® the management can be sure that all relevant parameters are considered and that the decision for a FM project is based on a holistic view.

Keywords: Innovation; Project systems; Integrated facility management; Visual communication; Pre-project improvement

Introduction

Integrated Facility Management becomes more and more a position of a key success factor. Especially since we see that more and more Facility Management contracts include themes like green building certification, annual energy saving audits, cost reduction systems etc (Najork, 2009).

A well managed real estate contributes significantly to the satisfaction of the user. Good services paired with a good price-service ratio has a positive impact on operational costs and herewith indirect on the profitability, attractiveness and reduction of the vacancy rate (Priess, 2010).

From the practical perspective with a view as Facility Management Company we have the problem that the increasing complexity of projects - with that new themes –

sometimes overtax the people who request quotations for Facility Management Services.

In that case we have a high risk that projects are especially within the pre-project phase are not well managed. Here are the most often reasons why projects fail (Spank, 2009):

- unclear requirements and goals (70%)
- insufficient project planning (60%)
- poor project communication (40%)
- bad stakeholder management (25%).

To create an additional value we need more innovation as to work in the categories Infrastructural, Administrational and Technical Facility Management.

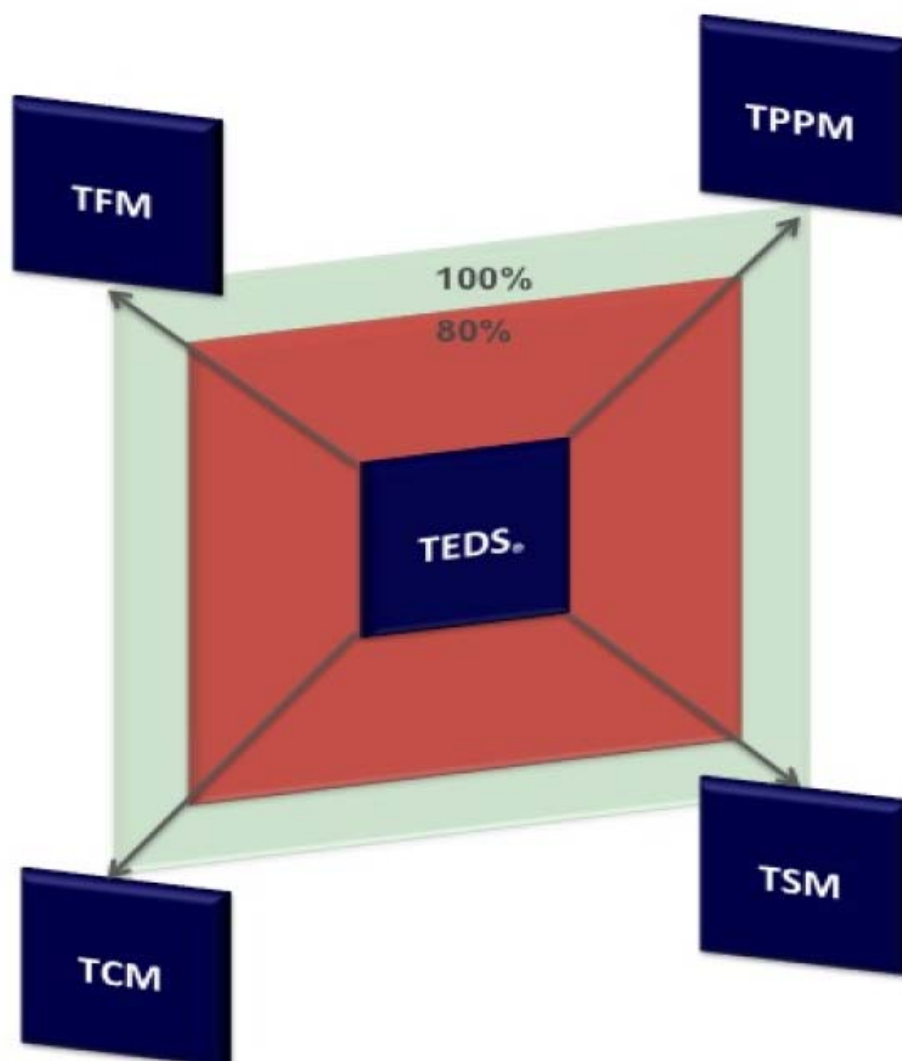
TEDS® – The Squaring of Success

How can we avoid a negative impact of potential Facility Management projects while the pre-project phase. The answer is through a professional and systematic conditioning of all relevant project parameters. This we will reach with TEDS® – Total Evaluation & Decision Square. It is a holistic system of an integrated consideration of all relevant key success factors.

To generate a holistic view we use 4 maps:

- TFM – Total Financial Management
- TCM – Total Content Management
- TPPM – Total Process & Project Management
- TSM – Total Stakeholder Management.

Every of that maps will contain a significant number of parameters which will get weighted and judged. In general we will defined a positive result area above 80% and the failure area below 80% (see Figure 1).



Source: UPRReal (2013)

Fig. 1 TEDS® – The Target Square

Total financial management

With the financial map we evaluate all relevant financial parameters like quotations, logistic costs, internal costs, project costs, restructuring costs, risk evaluation etc. Therefore we have a database in place with more than 50 parameters. Based on the customer briefing we do a pre-selection of the project specific parameters. In a workshop together with the relevant stakeholders we have to finalize the selection and the value of significance of every parameter (see Table 1).

Table 1. Example TFM – Parameters

| TFM - Parameter | significance 1 - 10 | max. value col. B x 10 | abs. value 1 - 10 | weighted value col. C x D | % value col. E to C |
|---------------------|------------------------|---------------------------|----------------------|------------------------------|------------------------|
| total price | 10 | 100 | 8 | 80 | 80% |
| additional expenses | 2 | 20 | 10 | 20 | 100% |
| transfer costs | 3 | 30 | 6 | 18 | 60% |

| | | | | | |
|-----------------|---|-----|---|-----|-----|
| guarentee costs | 4 | 40 | 9 | 36 | 90% |
| total | | 190 | | 154 | 81% |

Source: UPReal (2013)

On that example we can explain the system behind. In the first column we find the relevant parameters and in the second column the significance of every parameter. Column three shows us the maximum value of every parameter calculated by maximum value which is 10 multiplied by the significance value. Column four contains the absolute value which is the result of the judgement of the project team. Column 5 shows the weighted value of absolute value (Col. 4) multiplied by significance (Col. 2). And last but not least column six contains the percentage of the weighted value compared with the maximum value (Col. 3). In that example we see a total weighted value of 81% over all TFM parameters.

Total content management

The content map evaluates all relevant content parameters like facility management concept, emergency concept, cost reduction concept, offered service levels, service portfolio etc. Therefore we have a database in place with more than 40 parameters. Based on the customer briefing we do a pre-selection of the project specific parameters. In a workshop together with the relevant stakeholders we have to finalize the selection and the value of significance of every parameter (see Table 2).

Table 2. Example TCM – Parameters

| TCM - Parameter | significance 1 - 10 | max. value col. B x 10 | abs. value 1 - 10 | weighted value col. C x D | % value col. E to C |
|------------------------|------------------------|---------------------------|----------------------|------------------------------|------------------------|
| FM concept | 10 | 100 | 8 | 80 | 80% |
| emergency concept | 6 | 60 | 10 | 60 | 100% |
| service level | 3 | 30 | 4 | 12 | 40% |
| cost reduction concept | 5 | 50 | 9 | 45 | 90% |
| total | | 240 | | 197 | 82% |

Source: UPReal (2013)

Total project & process management

With the project and process map we evaluate all relevant project and project parameters like quality management, timing, CAFM (Computer Added Facility Management), transfer concept, preliminary work, relevant beside processes etc. Therefore we have a database in place with more than 115 parameters. Based on the customer briefing we do a pre-selection of the project specific parameters. In a workshop together with the relevant stakeholders we have to finalize the selection and the value of significance of every parameter (see Table 3).

Table 3. Example TPPM – Parameters

| TPPM - Parameter | significance 1 - 10 | max. value col. B x 10 | abs. value 1 - 10 | weighted value col. C x D | % value col. E to C |
|--------------------|------------------------|---------------------------|----------------------|------------------------------|------------------------|
| quality management | 8 | 80 | 8 | 64 | 80% |
| timing | 7 | 70 | 10 | 70 | 100% |
| CAFM system | 3 | 30 | 4 | 12 | 40% |
| transfer concept | 10 | 100 | 9 | 90 | 90% |
| total | | 280 | | 236 | 84% |

Source: UPReal (2013)

Total stakeholder management

The stakeholder map evaluates all relevant stakeholders like Management, Owner, User, Staff, Legal, Workers Committee, Shareholders, Renters etc. In that case it means how to involve them (functional, convincement, informative), conceptional requirements, functional requirements etc. Based on the customer briefing we do a pre-selection of the project specific parameters. In a workshop together with the relevant stakeholders we have to finalize the selection and the value of significance of every parameter (see Table 4).

Table 4. Example TSM – Parameters

| TSM - Parameter | significance 1 - 10 | max. value col. B x 10 | abs. value 1 - 10 | weighted value col. C x D | % value col. E to C |
|--------------------|------------------------|---------------------------|----------------------|------------------------------|------------------------|
| owner aligned | 10 | 100 | 8 | 80 | 80% |
| management aligned | 8 | 80 | 10 | 80 | 100% |
| legal aligned | 6 | 60 | 4 | 24 | 40% |
| renter aligned | 8 | 80 | 9 | 72 | 90% |
| total | | 320 | | 256 | 80% |

Source: UPReal (2013)

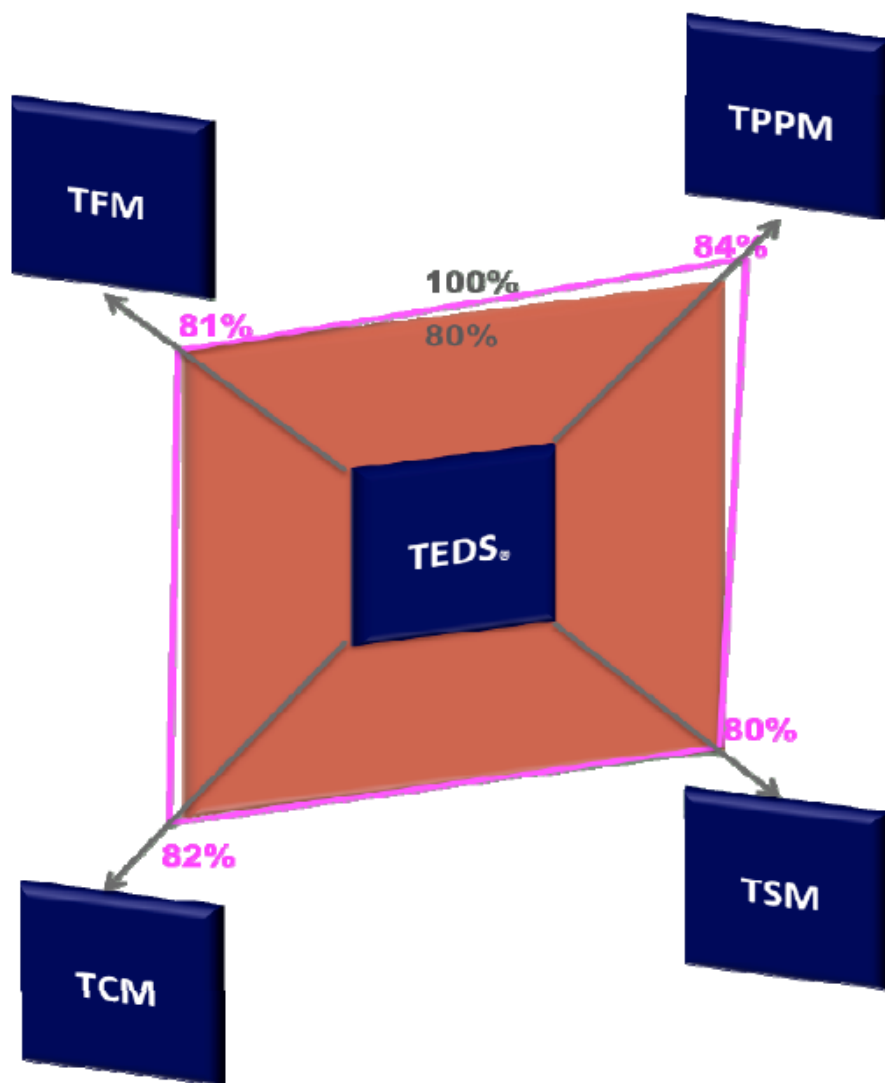
The result square

Based on the evaluation results of the 4 maps we will get a result for each of the categories (see Figure 2).

The result square shows us a positive picture when all 4 categories (TFM, TCM, TPPM, TSM) in the green area means above 80%. Then we have a helpful, “able-to-make-decisions” graphic. The accuracy of the square is an indicator for the balance of the categories.

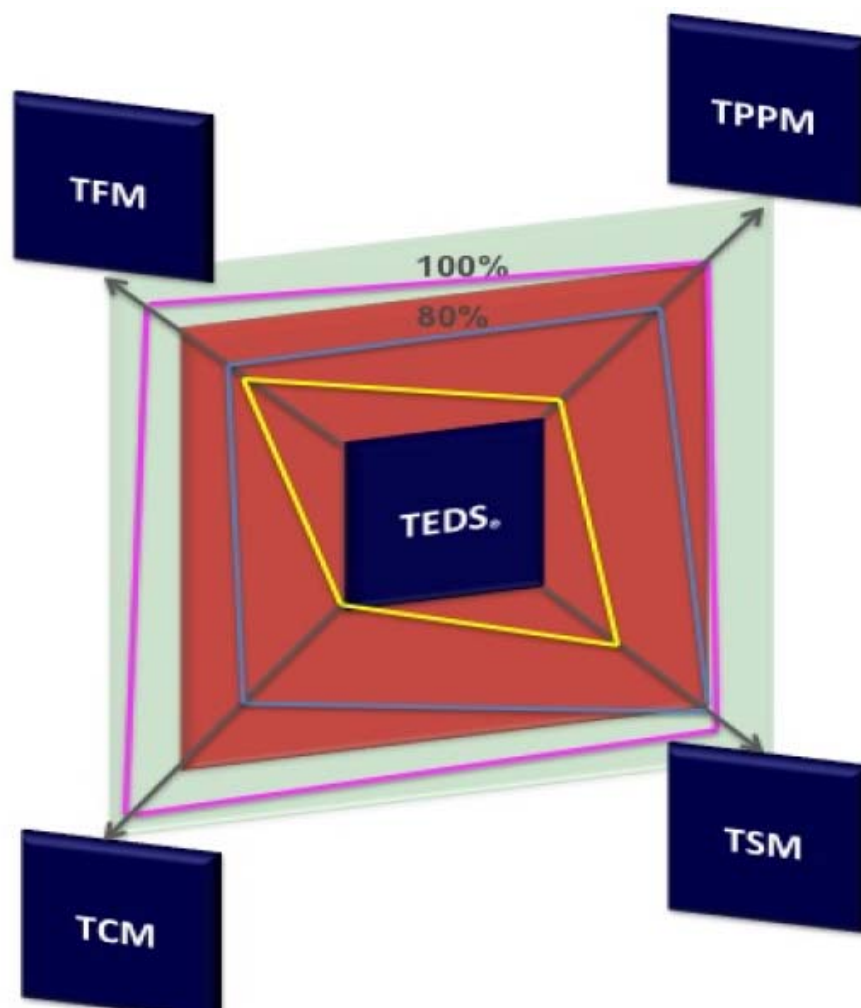
Usually we don’t have only one option we have to evaluate. Practically we have minimum 3 options often up to 6 we have to evaluate. In that case we get a graphic like below (see Figure 3):

With the visualization of the results for the different options we have got an easy identifiable base for decisions. How we can imagine in Figure 3 two of the 3 options are in the “red area” and only the magenta one is feasible.



Source: UPRReal (2013)

Fig. 2 TEDS® -The result square



Source: UPReal (2013)

Fig. 3 TEDS® -The options

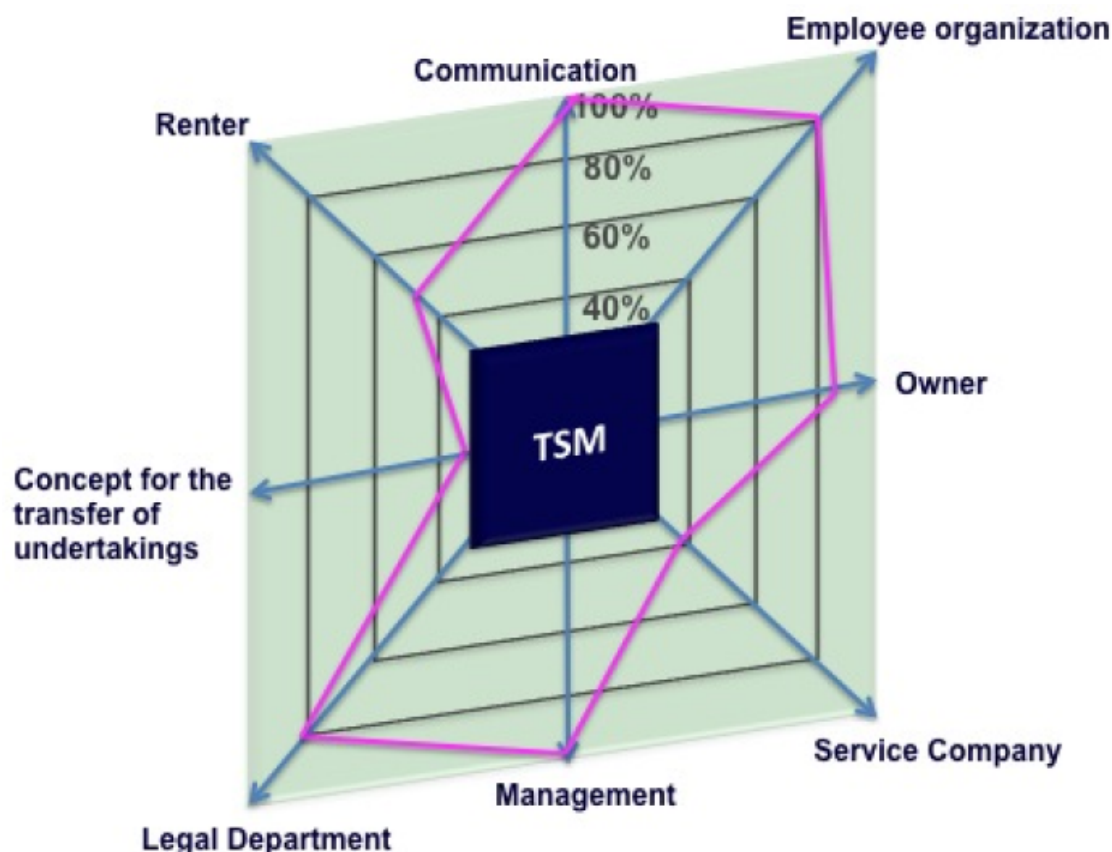
Potential adjustments

Actually TEDS® give us the chance while the evaluation to imagine the needs for improvements. With Figure 4 we can easily imagine which parameters are ok and which have room for improvement.

In total the result for that example of TSM is 87% but on the other hand we see that the 3 parameters

- Service Company (alignment)
- Concept for the transfer of undertaking
- Renter (involvement)

are not in a good shape. Here we have the chance to adjust these parameters. But we also know that for a successful project it isn't necessary to fulfil all requirements. Sometimes it is better to make a decision on the right time than to try to adjust every parameter so far it is based on a risk analysis.



Source: UPReal (2013)

Fig. 4 TEDS® - Room for improvement

Conclusion

With the innovative TEDS® system we can translate hundreds of parameters in four different categories into a graphical overview. So we are able

- to contain and consider all relevant parameters
- to prioritize and weight the relevant parameters
- to visualize the results for different options
- to make easier decisions for complex projects.

The positive effects in total are:

- the involvement of all relevant stakeholders
- the reduction of the project live span
- the reduction of the follow-up costs (because of not considered but important parameters)
- an effective project implementation
- to show more competence to the customer as Facility Management Companies usually doing
- to get the chance to step-in projects as usual.

Summarized this innovative system gives Facility Management Companies the added value to influence customers to get a better project base, to realize additional turnover with pre-project consulting and saver project implementation through better information.

References

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