

Facility Management as a Way of Reducing Costs in Transport Companies

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Abstract. For facility management exists a several interpretations. These interpretations emerged progressively. At the time of the notion of facility management was designed to manage an administrative building, in the United States (US). They can ensure their operation and maintenance. From the US, this trend is further moved to Europe and now it start becoming a current and actual topic also in Slovakia. Facility management is contractually agreed scheme of services, semantically recalls traditional building management. There by finally pushed for activities related to real estates. For facility management is fundamental – certification and certification systems. Therefore, is essential to know, the cost structure of certification. The most commonly occurring austerity measures include: heat pumps, use of renewable energy, solar panels and water savings. These measures can reduce the cost.

1. Introduction

The International Association of Facility Management (IFMA) promoted a method, how to reconcile companies working environment, workers and labour activities. It encompasses the principles of business administration, architecture, humanities and the sciences mentioned. Facility management is globally a well-known phenomenon with a solid base in company management [1].

2. Facility management and implementation in transport companies

Facility management is a specific system of corporate governance, based on Edison's thoughts: *I'm actually only parasite. Absorb ideas and putting them into practice.* According to Ondrej Sekora in the Czech environment found, in a comparison of known child characters with the same letters FM: *Ferda the Ant - work of all kinds* [2]. All the businesses have managers who manage different activities or operations. These operations are usually divided into two basic groups, core activities and secondary activities that support the core ones [3].

Over the word exist the companies which use as an effective tool for costs optimization and operational processes [4].

Overview of transport enterprises in Slovakia, which became aware of the status of facility management:

- Slovak Railway Companies – subcategories: Railways of the Slovak Republic, Bratislava Regional Railway Company, Czech-Slovak State Railways, RegioJet, Railway Company, Railway company Slovakia, Railway company Cargo Slovakia
- Transport enterprise of the city of Bratislava,
- Transport enterprise of the city of Banská Bystrica,



- Transport enterprise of the city of Kosice,
- Transport enterprise of the city of Zilina,
- Eurobus,
- Slovak Lines,
- Slovak bus transport,
- Slovak bus transport Trencin, public Limited Corporation
- Slovak bus transport Zilina, public Limited Corporation.

One of the tools for the management of customer receivables is regular assessment of the credibility of current and potential customers [5]. It is mentioned, that the ticket implements the public transport consistently into the proposal of housing companies based on integrated fares and sales channel. That provides an access to the public transport with the rent payment [6]. In a medical waste management system, logistic issues have a significant importance due to medical waste characteristics. That have influence on transport restrictions, storage possibilities and safety reasons [7].

2.1 The basic approach to the process of certification and international certification

The main approaches are:

1. Evaluation at the design stage and after construction updates on the actual design of construction, according to the relevant project documentation. They are based on the actual design and construction, based on real data obtained from the operation (time period of 3 years).
2. Evaluation only in the design phase.

The authors explain - score without pre-certification when converted score constructed with completed building (or renovation) according to the actual design engineering. Project documentation must be relevant, actual design and construction of data obtained from the operation [8].

International certification of the building: this is the review of project documentation at the design stage of the building. Issued pre-certification quality of the building. Therefore does not represent the final quality of the future status of the building, but the quality of project documentation of buildings (mainly conceived of project documentation) [8].

Certification of buildings: the assessment already tested by building according to the actual design of the building. The basis is the design of the actual design and construction data obtained from construction and operation – emphasize importance [8].

2.2 Used certification systems

Nowadays, there are some other certification schemes evaluating the sustainability of buildings. British BREEAM (British Research Establishments Environmental Method) is extended to the extent possible. Another ranking system is the American LEED (Leadership in Energy and Environmental Design), which is being developed by US Green building Council. DGNB certification system is widely used in Germany, France has the certification methodology of HQE (Haute Qualité Environnementale). These countries use [8]:

- Czech Republic – SBToolCZ,
- Netherlands - GPR Gebouw (Municipality Tiburg and W / E Consultants),
- Poland - E Audy,
- Switzerland – Minergie,
- Finland - Promise (Motiva consortium, VTT, Poyry, Indoor Climate Association),
- Norway – EcoProfile,
- Italy - Protocollo ITACA (iiSBE Italy),
- Spain - SBTool Verde (iiSBE ESPANA).

One of the assessment of the energy efficiency of the buildings energy performance certificate Obligations under Directive 2002/91Y / EC of the European Parliament on the energy performance of buildings and on amendments to certain laws. The main objective of the directive, while the law is:

- improve the energy performance of buildings,
- ensure the required conditions applicable to indoor environment,
- streamline construction and operation of buildings.

3. Results and discussions

The energy certification of buildings used as one means of evaluation and classification of buildings according to their energy performance in Slovakia. Certification applies to new construction and significant renovations and all sold and leased buildings since 2008. A separate certification in the evaluation of intelligent and green buildings, of course not, because energy efficiency is only one part of intelligent building. There are also critical of the energy certification, with the idea expressed that it is only a kind of *paper certificate*. At the same is needed to know, if companies want to have long-term prosperity at global markets, they cannot have a passive attitude to risk management. Through a demo certificate, we can be seen by power class [9]:

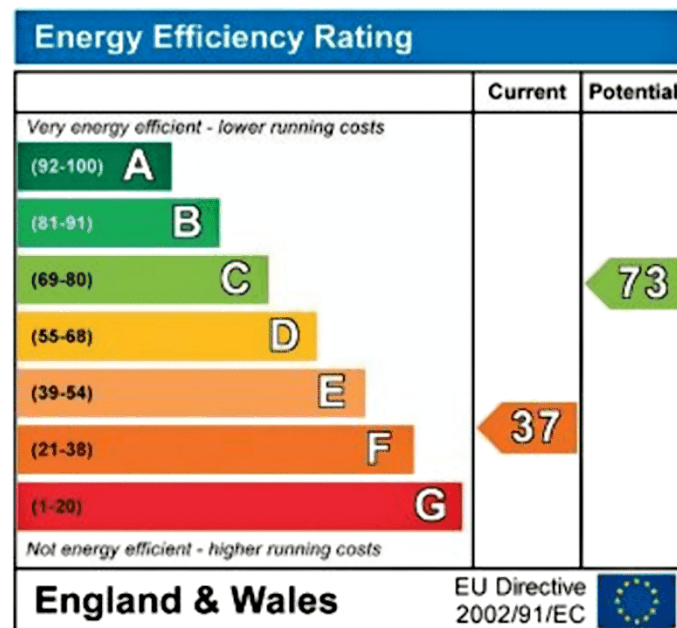


Figure 1. The display of energetic certificate.

Selecting a certification system depends on the side and its decisions, or the possibility of ensuring that the type of assessment.

Saving measures: Buildings seeking to grant the certificate, are trying to insert into the project essential building blocks and other measures to ensure credit assessment. These measures have a tend to be the most often that prevent wasting energy, provide technical and economic efficiency.

These are mainly the following forms:

- Heating - the most energy is consumed in this way.
- Renewable energy sources - the European Strategy 20-20-20, States pledged to increase the share of renewable energies in overall EU consumption to 20 %.
- Heat pumps - air-to-water, ground-water, water-water.

- Boiler Biomass - Biomass is biological material derived from living or recently living organisms.
- Solar panels - changing electromagnetic light energy into electrical energy.
- Hydropower, water turbine.
- Wind energy.
- Air conditioning - cool interior of the building by 1°C is 3 to 4 times more expensive than warmed by 1°C. Therefore, they are introducing austerity measures in the form of window film.
- Save water - for example: collecting rain water to the tank.

Table 1. Summary of certification schemes, [10].

FIELD	CERTIFICATION SYSTEMS		
	LEED	BREEAM	SBToolCZ
The ability to incorporate into local conditions	no	yes	in the Czech republic
Used standards and laws	the American ASHRAE	European CEN/TC 350, BS EN 10 020, adaptation to local conditions	European CEN/TC 350, ISO TC 59, ČSN EN
Certification body (organ)	GBCI	BRE	TZÚS, VÚPS
Global awareness	the biggest	great	smaller
Type of assessment	spot	weight	weight
Number of Ratings types of constructions	9	12	2
Rating levels	certified, silver, gold, platinum	pass, good, very Good, excellent, outstanding	certified building, bronze, silver, gold
Pre-certification	yes	yes	yes
Rigor of evaluation under this scheme	the least stringent	moderately stringent	most severely
Cost of certification	the most expensive	moderately expensive	cheaper
Availability of information	free download	free download	available in book form

The future of manufacturing leads to flexible industrial facilities in which production lines or systems are composed by several production cells [11]. Production cells can be reorganized and reconfigured by introducing new devices, equipment, functionalities or even by re-configuring the communication network mentioned. That development in techniques and organization rules improves the moving cargo, delivery speed, service quality, procedure costs, the practice of facilities and energy saving [12].

4. Conclusions

Each investor meets something else and has other priorities (values) - how to design the building. The investor claims to define as crucial as the cost to reconstruct the building as efficiently as possible.

Certification can bring to the investor additional benefits. These vary according to the type of investor (developer, user, public sector). The main advantages of certification include: competitive advantage, marketing tool more attractive buildings for customer's assurance of quality design, verify the correct performance and quality sites higher value, higher profits, lower operating costs, higher quality perceived as an added value, respect for the environment. Each building that is looking for a certificate, must go through a certification process. The question is the cost of certification page [8]. The costs associated with obtaining a certificate are twofold - certification costs (registration, certification fee for assessment for accredited professional, different charges) and the cost of the construction measures (for instance: for concealed cistern for rainwater, using better materials). The individual methods differ mainly in their detail and scope image evaluation. All methods, evaluation sustainability, unlike the issue of the certificate of energy performance of buildings beyond the current legislation and to the sponsor by a method for the evaluation of its object used. The evaluation should become an integral part of the global approach in the context of sustainable development and thus a necessary condition for quality construction.

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