

Built Quality Evaluation Case for Hotel Buildings in Turkey

A.Tanju Gültekin, A.Yağmur Topraklı

*Department of Architecture, Gazi University, Ankara, Türkiye
gultekin@gazi.edu.tr, toprakli@gazi.edu.tr*

Abstract

A study of built quality evaluation in 12 quality hotels in Turkey has been carried out and the results are reported using a site survey in 2004. The breakdown of quality deficit areas showed that design mistakes and technical problems dominated on the total ratio. A number of factors that affect renovation need of hotel buildings, such as age, fashion, technical imperatives, etc., are reviewed and the difficulties in assessing hotel building quality performance are pointed. Finally the problem areas of built quality, and reasons for renovation are presented as an outcome of the research.

Keywords

Building quality, Hotel buildings, Building maintenance and improvement, Turkey

1. Introduction

Hotel buildings are generally acknowledged as the primary source of benchmarks for the construction industry. Hotel buildings are unique, as compared to other types of commercial buildings. This includes different operating schedules for different functional facilities in a hotel building; numbers of such facilities (restaurants, in-house laundry, business centre, etc.); variability of occupancy levels throughout the year; varied personal preferences of indoor environment expected by guests, etc. These circumstances necessitate a comprehensive design task of hotel buildings and an understanding of problem areas of occupancy period accordingly.

Success of design quality affects the built quality of the building as a sequence. The building performance researches include feedback knowledge for better building design. Since performance measurement of the buildings is not an exact science, making benchmarking difficult and feedback is essential for benchmarking. There are four principle kinds of feedback technique that can be used separately or together; observations, questionnaires and interviews, facilitated discussions, physical monitoring, testing and analysis of performance statistics (Bordess, 2004). RIBA (1999) saying that; "the biggest improvement to be made (in customer focus) is in systemizing feedback and in instituting post-occupancy evaluation."

This study exemplifies built quality evaluation of 12 quality hotels in Istanbul and Ankara based on a site survey in 2004 (Gultekin, 2004). Their problem areas of built quality, and basis for renovation are presented. Problematic areas are identified and listed.

2. Problem Description

All buildings once they are completed begin to fray and need good care and repair to be able to stay in good condition. Their structure deform, the materials swell and shrink, air pollution, chemicals and dirt

dash the surfaces, lead to corrosion and corruptions. The walls and floors lose their characteristics; seams of the construction joints lose their functions due to use, the service machines wear. This wear cannot be prevented and yet can be delayed. On the other hand occupancy needs and/or functions of the buildings might change in time. Besides, complex building forms like hotels might need to change and renovate their shape, appearance and image which get old and been used to by getting older.

The efficiency, practicability of the buildings and their lifetime can get influenced by the decisions made in any time from the initial design steps to the demolition. If it is assumed that a building is a whole of systems, than designer is to be the person who shapes those systems and their components. Consequently, only the ideally informed designer who knows and understands the whole system can predict correctly whether the decisions made will affect the system positively or negatively. As a decision maker, the designer has to be aware of the feedback knowledge of the past processes and has to manage these knowledge.

Operating and maintenance expenses of buildings, during their lifetime process, costs many times of their investment costs. The largest amount of these expenses is of the amount spent for resolve the problems faced during occupancy period of buildings. That case makes it necessary to establish quality based relationship between the initial costs and operational/maintenance costs. Accordingly, to control these problems or to know the solutions to be followed as soon as they appear it is necessary to avert about occupancy period problems before they occur.

Quality Hotel Buildings in Turkey are considered as good cases for identifying problematic points for construction industry.

3. Objectives and Methodology

In 2004, a research was conducted by the author on specifying the occupancy period problems of hotel buildings which was supported by Gazi University. In the research the major works done and their reasons in terms of sustaining quality and renovation reasons are studied. A method of two stages was used in determinations. First, a structured interview was held with technical managers of hotels. Questioning in conversation style helped sources of knowledge to behave free in a sense. In the second stage, places mentioned about and permitted to be seen were looked round with a person in charge and problematic points and places were examined by expert's eye, and fixed with photographs.

The research was realized in hotels where permission was obtained for study in Ankara and Istanbul. The most serious difficulty grew out of reluctance for explaining existing or experienced problems. In some occasions taking photographs were not welcomed.

4. Findings

As a result of the study, it is observed that other than the routine maintenance and repair, comprehensive renovations start after 8 years since the building began to be used. As a major finding of the study all the hotel buildings studied were undergone a deep renovation after 10 years, as a mean time. Renovation reasons are classified under 5 headings; Trend / Fashion Imperatives, Functional Problems, Technological Problems, Physical Problems and Service Problems. Renovation reasons and relative proportions of sub-set areas are presented in Table 1.

Table 1: Comprehensive Renovation Reasons and Proportions

Renovation Reasons	Renovation Reasons Subsets	Incidence	Percentage
Trend / Fashion Imperatives	Ageing (wearing) of the Design/Image	9/12	75%
	Conformity to occupancy / Change in user taste / Change in function	6/12	50%
Functional Problems	Owner or user change (Problems occur because of manager not taking place during designing process)	1/12	8%
	Increase in management costs	2/12	17%
	Building's element and materials not suitable for their usage functions	7/12	58%
Technological Problems	Structural and construction problems	1/12	8%
	Roof problems	5/12	42%
Physical Problems	Covering, plating and material problems	4/12	33%
	Design, detailing problems	6/12	50%
	Heating, cooling, ventilation problems	4/12	33%
	Water problems (roof/dilatation/parapet)	5/12	42%
	Humidity problems (underground/pool places)	4/12	33%
	Wearing problems (window/door joineries/immobile furniture)	9/12	75%
	Chemical damages (side / floor flooring material)	2/12	17%
	Seasonal corrosion problems	3/12	25%
	Leaking problems (through window water/air)	7/12	58%
	Electricity and lighting deformation problems	5/12	42%
	Clean water system problems	10/12	83%
	Sewage system problems	4/12	33%
Service Problems	Problems resulted from absence of air conditioning for not allowing flexible use of the spaces	9/12	75%
	Functional services. (Lift, cleaning equipment, corridor/room care, shaft/covering/transportation problems etc.)	5/12	42%
	Inadequate generator which does not meet the needs	4/12	33%
	Furnishings and mobile furniture in the rooms fraying	5/12	42%

While interviews conducted there are also some problematic points are mentioned which are not classified but as of general problem points. These points are listed as follows;

- Sound problems about mechanical fixtures occur,
- Nonflammable textile materials cause problems (as of floor covering),
- Bedroom doors transmitting sound and smoke/smell,
- Galvanized lead pipes are replaced with PVC (polyvinyl chloride) pipes because of perishing,
- Increasing needs mechanical and electrical systems result in insufficiency of location,
- Air-conditioning systems raise investment cost and is applied as one way to reduce initial cost which makes it impossible for seasoning, therefore different heat needed in different places cannot be provided,
- Lack of management consultant of hotel buildings causes mistakes in technical design matters,
- Because of the mistakes in design and application of roof, gutter, chamfer, vertical running and dilatations, water problems are faced.
- Micro air conditioning and orientation problems come out in side elements and materials (chemical changes out of prevailing wind, southwest wind, west sun, sulfur in the air)

- Inefficient preparations in curtain wall, glass vault, etc. leads to cleaning problems, such as basket hanging,
- Flooring joining materials, especially ceramics, fray and crack easily. Maintenance and repair in those places is problematic,
- Humidity problems seen in walls and floorings of underground levels,
- Ceilings of indoor swimming pools deform fast because of heavy humidity,
- Leaking problems in swimming pools are seen,
- Inefficient flexibility in design does not let functional changes in common areas, such as ball room, meeting room and casino.

5. Conclusion

Considering the outcomes of a limited research stated above, deciding control lists can be developed for designers, landlords and managers in terms of preventing or controlling the occupancy stage problems. The expectation is turning these results into, useful knowledge, starting with the parties concerned for construction industry in Turkey. It is necessary to construct systematic observations to provide useful benchmarks and improve built quality for hotel buildings and for construction industry in general.

A major conclusion is that, feedback will help to add value. Designers and construction professionals should seek to understand more about how buildings really work and aim to make them better, more robust, more usable and more manageable by establishing standardized feedback routines.

6. Acknowledgements

The authors wish to acknowledge funding from the Gazi University to support this survey.

7. References

- Bordess, B. (2004). "Learning more from what we build", *Designing Better Buildings*, Editor: Macmillan, S. Spon Press, N.Y., USA, pp. 21-32.
- Gultekin, A.T. (2004). Evaluation of Rehabilitation, Reacquiring, and Sustaining Built Quality in Hotel Buildings. Gazi University Research Fund, Code: (06/2002-04).
- RIBA. (1999). *Architects and the Changing Construction Industry*, London: RIBA.