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What is "good" hotel design?

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Keywords

Abstract

It is a commonly held belief that a well-designed hotel can be a source of profitable operation but the evidence for this is far from conclusive. This paper considers the nature of "good" design and its potential link to higher sales and profitability. The concept of hotel product lifestyles and two techniques of space utilization are proposed, the grossing factor and the design efficiency factor. Includes tables, drawings and plans that demonstrate how these techniques can work in practice.

Electronic access

Introduction

There is some anecdotal evidence that there is a link between hotel design and profitability. Many hoteliers and hotel designers would agree that "good" design can affect the bottom line for hotels, but few of them could prove the link or specify the nature of this relationship. There is often an intuitive feeling that effective design can attract customers from the desired target market segment and enable the hotel to price accordingly while operating the unit in an efficient way. The result of this greater market awareness and customer volume is increased profits. This paper explores the nature of effective design and describes how techniques developed through practice such as the grossing factor and the design efficiency factor can help to understand the more tangible elements of good design. Finally, the durability of a design is related to the concept of useful economic life and a framework for mapping refurbishment cycles is suggested.

Effective design

Katsigiris and Thomas (1999) define design as "the definition of sizes, shapes, styles and decorations" and suggest that design is important in both "soft" and "hard" ways. Design can create an atmosphere in the public areas of the hotel that makes it attractive to visit, including bedrooms, restaurants, lobbies, lounges, bars and shops. Although location is a fixed and unchangeable factor for the hotel, both interior and exterior design can add or detract from the property's attractiveness. Good design can affect "soft" factors including:

- image;
- style;
- comfort;
- marketing;
- ambience.

Image and style represent the way in which an entity communicates messages such as

identity and quality, and these are subjectively judged by the customer based on his or her personal perceptions and frames of reference. Design can also affect harder and more tangible factors such as:

- operational efficiency;
- cost;
- safety;
- cleanability and maintenance;
- ergonomics;
- noise;
- space allocation.

These more tangible design factors can be more clearly identified and result from a clear concept of the finished product on the part of the developer and a well-constructed design brief. The need to balance form and function in realizing good design is still paramount. While certain niche hotels have focused on form, to the detriment of function, such risk practice is not affordable in the mainstream hospitality market. Conversely, this does not mean that exciting or modern design idioms cannot be utilised, but requires that those commissioning designs and designers focus on the aspirations of their particular customer target groupings, whether specific or general. The discerning customer of the twenty-first century may seek to align his/her purchase choice with a particular "life style" image; however, for the majority, affordability will still be an important criterion. For the investor/operator constantly seeking higher financial returns, the twin scales of form and function, therefore, will remain firmly linked to cost.

The effects of design

If firms make profits, they are able to set aside capital to invest in their future. The Chartered Institute of Management Accountants defines capital spend as "the cost of acquiring, producing or enhancing fixed assets" (CIMA, 1996). Similarly, it is revenue minus costs (or gross operating profit) that, after accounting for the funding of the project (capital expenditure) results in defining the net profit before tax.

Investment criteria utilised for major capital investment such as hotels normally takes account of a number of factors including:

- funding of the project;
- the size of the investment;
- the economic life of the project;

The financial benefit or detriment of good design can therefore be simply expressed and is shown in Table I.

Higher sales

Evaluating whether good design results in higher sales can generally only be undertaken retrospectively, as this relates to the designed image having proven market appeal. Whilst there are various market research methods available to test the appeal of a new product, consumer response is generally more reliable with respect to a product's content rather than its image. Not surprisingly, therefore, investment for established branded products tends to be more readily available than for a new product where the risk-to-reward ratio will be considered higher.

The polarisation of the industry into the international or national brands and independent or niche operators has resulted in the increased use of design as a competitive tool by both the branded and independent operating groups. This is because, generally, the prime product content, accommodation, is the same or similar, and image is the main attribute for differentiation.

Product lifecycles

In the UK and especially London there has been a rush of "design hotels" and the recent publication of *Hip Hotels* has become a best seller of non-fiction books. For some, the use of high profile designers or specific design styles has proved successful, whilst an equal number are realizing the variance in the definition of "good design". Within these constraints the international development of "life style" design will also have to address the challenge of cultural differences, but if market growth continues, greater volume will accommodate further market fragmentation.

The risk for organizations that operate life style products is that the product life cycle is

Table I The effects of design on the hotel product

Effective design	Hotel product	Ineffective design
Increased sales	*Revenue*	Lower sales
Greater efficiency	*(Costs)*	Poor efficiency
Higher	*Gross operating profit*	Lower
Reduced	*(Capital spend)*	Increased
High	*Net profit*	Low

often short. For example, the retail catering industry has in the last 30 years fragmented its customer base into life style segments. Whilst this has generally produced increased volumes in sales, there has been a continual need for product adjustment as the popularity of one style has declined and a new style evolved. Importantly, the image of the environment or store became relevant to the sales volume of the product. This resulted in Top Shop, a national chain focusing on the 16-23-year-old market, refurbishing its UK flagship, highest volume store in Oxford Street, London on an 18-24 month cycle. A very short product life cycle in any terms.

This limited product life cycle, if applied to the mainstream hotel industry on a less dramatic scale, would have serious implications on the net profit line. Most hotel groups still utilise extended write down periods on property (BAHA, 2000) whilst furniture, fittings and equipment (FF&E) replacement is provided for by way of 3 per cent of annual revenue. Ignoring the issue of building and plant life cycle and their requisite maintenance costs, recent research has shown that the true cost of FF&E replacement is generally in the order of 8-10 per cent of annual revenue, based on the traditional replacement periods of three to five years for soft goods, seven to ten years for hard goods. FF&E in this context excludes hard floor finishes, ceilings, fixed joinery and, most importantly, fixed lighting and control systems. In our comparison with the retail sector, the refurbishment of the Top Shop unit is inclusive of the latter building elements as well as the provision of lifts and escalators.

The average cost of a mid-market hotel's FF&E and related interior building elements normally constitutes anything between 30-35 per cent of the total construction cost. The impact on the bottom line of even marginally shorter replacement cycles occasioned by "life style product life" is likely to be dramatic. Currently, under-provision in FF&E replacement has been augmented by additional capital injection, thereby artificially distorting the historical profit and loss accounts, as the true cost of FF&E replacement is not reflected in the operating costs. Not surprisingly, operating managers historically sought to demand long life cycles, durability and easy maintenance in their design brief requirements, irrespective of the fact that the periods quoted were in excess of

replacement cycle or write down costs. Whilst such requirements created conflict with capital spend criteria, it should not be forgotten that many new life style design hotels completed in the last few years have focused on style to the detriment of durability, accepted replacement cycle periods, as well as maintenance or cleaning costs.

In summary, it is suggested that good design as defined will increasingly be influential on the top line by increasing or maintaining market appeal sales volume or pricing levels. The nature of the methods utilised to forecast in advance its market appeal will, to some degree, remain subjective. An increase in investment to market test new concepts may be inevitable, nevertheless, as in any investment situation, consistent performance in this case by the specialist hospitality designer will prove the most rewarding.

How then does good design influence the bottom line? The answer to this question fortunately is much more readily quantifiable in that it usually relates directly to efficiencies in capital spend and operating costs, primarily staff and running costs.

Capital costs

It has been suggested that cost is a major indicator of effective design. The average indicative capital spend for a mid-market hotel in London as suggested by DLE Cost Consultants is shown in Table II.

The following 11 cost drivers are particularly significant in determining overall cost levels:
(1) Site conditions and characteristics.
(2) Building plan, layout and massing.
(3) Quality levels.
(4) Building services installations.
(5) Furniture, fittings and equipment (FF&E) expenditure.
(6) Leisure facilities.
(7) Extent of external works.
(8) Requirements of local and statutory authorities.
(9) Unforeseen work and changes to client requirements.
(10) Speed of construction.
(11) Location.

Table II Indicative costs for London hotels in 1999

Indicative all-in estimating rates	Average gross floor area per room (m^2)	Cost, building only (£/m^2 – gifa)[a]	Cost, building only (£0,000s/bedroom)
Business town centre/provincial hotel, four to six storeys, conference and wet leisure facilities	70-100	1,100-1,300	90-130
Mid-range provincial hotel, two to three storeys, conference and leisure facilities	50-60	1,100-1,350	55-80
Two to three storeys, bedroom extension	33-40	800-1,200	25-45

Notes: Costs are for mid-range schemes for chain or affiliate hotels in outer London, with prices current in July 1999, assuming competitive tendering. Indicative costs include furniture, fittings and equipment, but exclude costs of drainage, external works and any necessary site preparation and demolitions. Cost of professional fees and VAT are also excluded.
[a] gifa = gross internal floor area

Source: Rawlinson (2000)

Table II demonstrates the critical relationship between average gross floor area and the building cost per m^2. Utilizing a norm of 70m^2 average floor area per room and a cost of £1,300/m^2, an average 150 room hotel would require a building cost expenditure of £13,650,000. Such a property would normally have a net bedroom area of 28-32m^2.

It can be seen that a reduction in build area can achieve a reduction in capital spend. Equally, it is evident that up to 45.7 per cent of the total build area is given over to the bedroom accommodation, the balance of 54.3 per cent allocated to public areas and back of house facilities. Cost and area figures are based on utilizing an efficient and regular structural grid for bedrooms, with public areas being either built integral to that grid (high rise) or separate (low rise) or a combination of both.

Hotel bedrooms
Traditionally 5.3-6m^2 of the total 28-32m^2 nett bedroom area has been allocated to the bathroom with a further 4m^2 allocated to the entrance lobby and wardrobe area. The remaining 18.7-22m^2 devoted to sleeping, relaxation and working space, a ratio of 3.2:1. This is expressed in the plan shown in Figure 1 that is common to most mid-market hotels.

However, separate to "life style image", recent research suggests that "life style usage" in a hotel bedroom suite meant a typical guest spent 50 per cent of their waking time in the bathroom and 50 per cent in the bedroom area. If design is about achieving a balance between style and function, clearly the established ratio of space allocation between bathroom and bedroom areas has not been responsive to customer need or usage pattern.

Following this survey, the Ransley Group, design consultants for the Golden Tulip Pegasus Hotel, Brussels, evolved a plan form based on proven cost effective structural grid principles that utilises a net area per room of 26m^2. These plans and drawings are shown in Figure 2.

Within the overall bedroom building cost inclusive of FF&E, the cost allocation for all elements, excluding the raw building form, external fabric, HVAC and electrical wiring was targeted as £10,600 per room. This cost was apportioned as £4,000 for a prefabricated bathroom pod and the fitting out and FF&E costs at £6,000. The bedroom suite is currently being constructed at a cost of £9,500 per unit, including £3,500 for the bathroom pod.

As the plan form demonstrates, the product incorporates a number of features that surpass the normal facilities provided in a mid-market hotel room, namely:

- walk in shower;
- dressing room/area;
- spatial environment compatible with a room size of 28-32m^2;
- differentiation.

The latter two are evidenced by comparing the photographs of a typical mid-market

Figure 1 A traditional hotel bedroom plan 28-32m^2
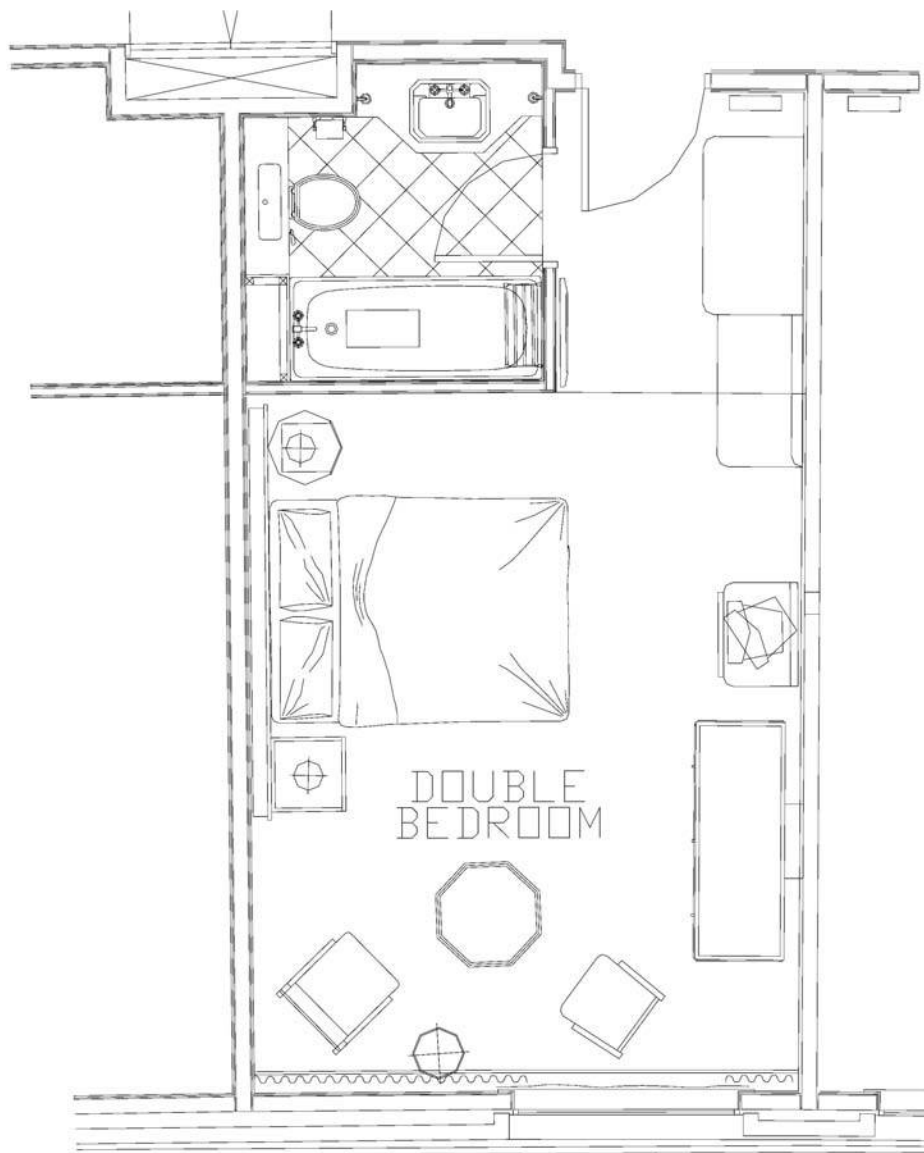
bedroom and the Pegasus unit. In terms of capital spend, the design efficiency can readily be calculated:

- *Cost saving in nett area per room*: 2-6m^2 × £1,300 = £2.6-7,800/rm × 150 = £390,000-£1,170,000.
- Provision of walk in shower: 1.1m^2 × £1,300 = £1,430 × 150 = £214,500.
- *Provision of dressing area*: 1.65m^2 × £1,300 = £2,145 × 150 = £321,750.

It could be argued that the provision of a walk in shower and separate dressing area are not a normal mid-market requirement and therefore not a capital saving. However, as these elements were provided within a reduced targeted budget cost, it is not unreasonable that the enhanced facilities will enhance the trading and capital value of the

hotel and should therefore be accounted for. The overall capital spend therefore has been reduced by approx. £926,250-£1,706,250 in comparison to the norm.

Space utilization

In respect of the public areas and back of house facilities, direct comparisons are more complex, as the facility content and size is much more variable. A common factor to all hotels, however, is general circulation and non-revenue area allocation. In existing properties, the application of asset management principles with regard to converting non revenue areas or increasing the yield derived from different areas. Examples include conversion of storage space into revenue areas, relocating low yield areas in

Figure 2 Standard room plan layout 26m^2 – Golden Tulip Hotels, Pegasus Hotel, Brussels
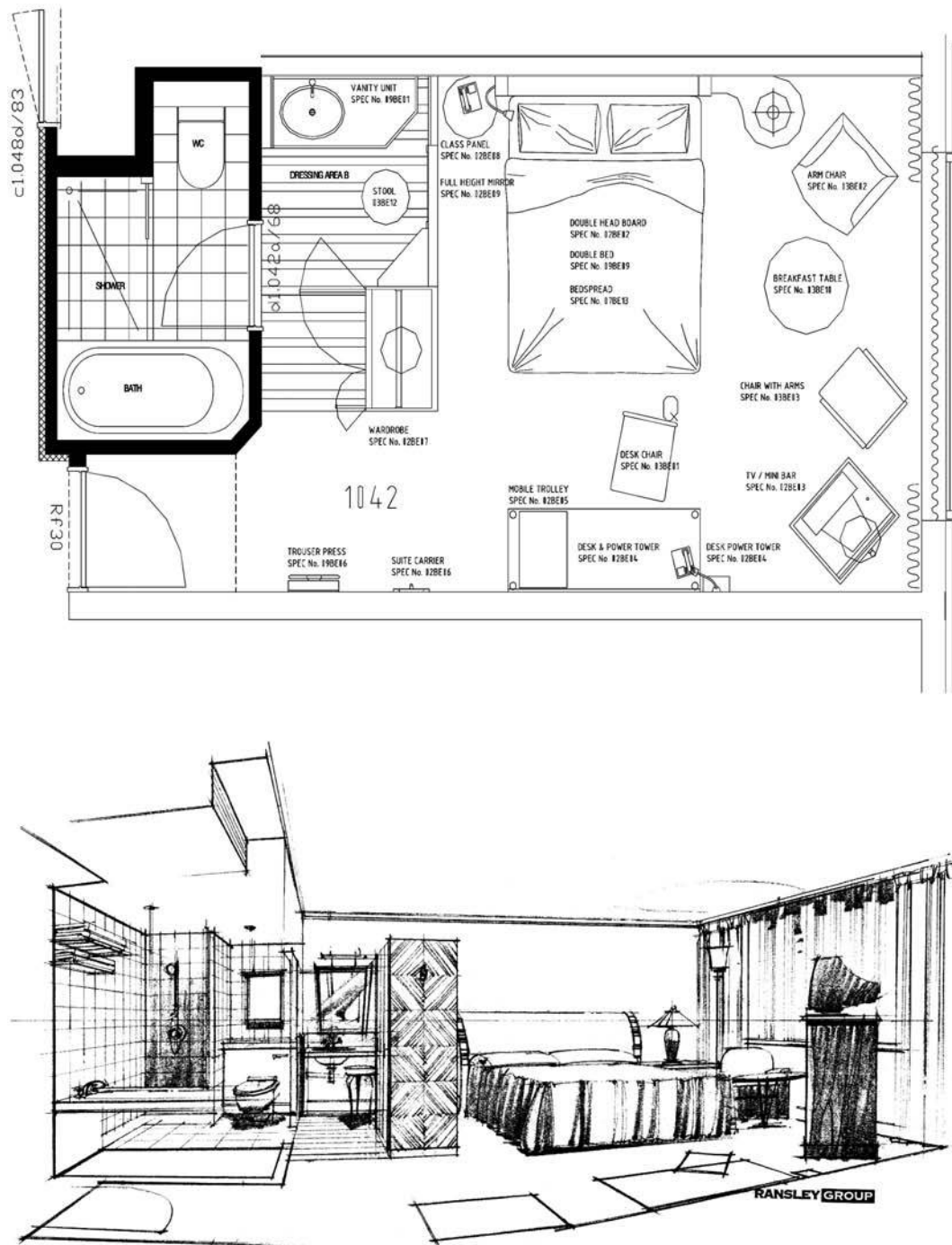
high profile location to secondary locations within the property, increases or greater flexibility in area usage and enhancing revenue in low yield areas, such as reception lounges etc. In new build properties, however, the strictures of efficient space utilisation and maximizing revenue streams have yet to be meaningfully reflected in operational briefs and imposed on the design development teams. Consequentially, the variance in grossing factors in new build hotels can be in the range of 20-35 per cent for typical hotel guestroom floor plan layouts (see Table III).

Grossing factor
This is the percentage added to the total area of guestrooms on a guest floor to provide for circulation, services distribution, maids' rooms, etc.

Table III shows the effect of the grossing factor on mid-market hotels.

Table III The effect of grossing factors on mid-market hotels

	Indicative overall construction cost per m² per room and per guest room including grossing factor		
	Average room size m²	Unit rate (construction of room only) £/m²	Construction cost (room only) £/room
Mid-market	30	1,300	39,000

Indicative construction cost of guest rooms including allowances for grossing factors (room construction costs and grossing factors)					
Low grossing factor		Average grossing factor		High grossing factor	
Grossing factor (%)	Construction cost (£)	Grossing factor (%)	Construction cost (£)	Grossing factor (%)	Construction cost (£)
20	46,800	30	50,700	35	52,650

Source: DLE (1999)

The grossing factor addition calculates allowances for ancillary spaces to guest floors only. Costs include furniture, fittings and equipment, but exclude allowances for external works, professional fees and VAT. Costs are at levels current in January 1998, based on an Outer London location. Figures are rounded to the nearest £100.

Design efficiency

Similarly, in the case of the public and back of house areas, efficiencies in space planning and area relationships reducing circulation space, for instance, are critically important, a 5 per cent variance in overall floor area can result in a significant difference of construction costs.

Room size (Ave. mid-market) 28-32m²
Gross/floor area/guestroom 55-65m²

Table IV highlights the effect of a 5 per cent variation in overall space allocation and demonstrates that the additional cost of inefficient space planning in a new development can typically cost £585,000, the value of an additional 10 per cent of bedroom room stock (public area space allocation for 150-180 bedroomed hotel not being very different).

In referring back to the Golden Tulip Hotels Pegasus, it has been demonstrated that the net bedroom size for this mid-market hotel has been reduced to 26m² whilst adding the value of an additional 2.75m² (walk-in shower and separate dressing area). In comparison with a normal mid-market hotel with an average nett bedroom size of 30m²

and gross area of 60m² per bedroom the Golden Tulip Hotels Pegasus areas consist of 26m² and 52m² respectively. The design efficiency factor could therefore be calculated on a typical 150-bedroom unit as shown in Table V.

To calculate to total financial benefit of the DEF, such factors as reduced staffing cost and other operating cost savings would have to be taken into account.

Useful economic life

In order to measure the potential durability of a design, it is necessary to assess the useful economic life of components of the development project and these are shown in Table VI.

Conclusions

This paper has attempted to define the nature of "good" design and the effects of efficient design on hotel profitability. Good design can have soft and hard components, and it is often

Table V The design efficiency factor (DEF)

	Gross area/rm	
Average mid market hotel	60m² x 150 =	9,000m²
GTH Pegasus	52m² x 150	7,800m²
Reduction in gross area/rm		1,200m²
Design efficiency factor		13.3%

Table IV Typical overall floor area per room and indicative total construction cost (including FF&E)

	Gross area/rm (m²)	Construction cost £ rm	150 rm	Value (£)
5% reduction	57	74,100	× 150	11,115,000
Average	60	78,000	× 150	11,700,000
5% addition	63	81,900	× 150	12,285,000

Table VI Suggested useful economic lives of categories of tangible fixed assets

Category	Range of useful economic life in years (from date of construction or installation)
Land	
Freehold	Infinite
Leasehold	Life of lease
Building core	
Freehold	Determined by directors in consultation with qualified advisers
	Category of building
	Typical hotel of brick or concrete frame construction, say 30 to 100 years
	Long life hotel such as historic building or one with exceptionally high quality of construction, say 80 to 200 years
	Limited life hotel of factory build or standard design with limited life cladding, say 15 to 70 years
Leasehold	Life of lease or useful economic life of building, whichever is less
Building surface finishes and services	20 to 30 years
Plant and machinery	15 to 20 years
Furniture and equipment	5 to 10 years
Soft furnishings	5 to 7 years
Computers	
PMS/PC hardware and software	3 to 5 years
Major systems installations	Up to 10 years
Motor vehicles	Up to 5 years

Note: The useful economic lives of these categories should be set to reflect the refurbishment cycles adopted by individual companies

Source: BAHA (2000)

the more tangible aspects that can be more clearly articulated. Good design can lead to increased sales, greater efficiency, reduced staffing levels, higher gross operating profit and the need for lower capital investment and maintenance costs.

As with many other products, hotel products have become more led by lifestyle as well as driven by the power of brands to raise recognition and customer loyalty. Hotel products have become more segmented by market and there has been the recent rise of the "design hotel", especially in London. The danger for hotels is that the product life cycle is becoming ever shorter, and this affects the level of investment required in maintaining customer visibility and popularity.

Capital cost is a major indicator of the effectiveness of a design project and the judicious allocation and utilization of space for bedrooms and other hotel areas is crucial to "good" design. The use of the proposed design efficiency factor can help to focus on reducing the gross area per bedroom by efficient space planning and strategies

designed to satisfy user requirements. It is necessary to assess in advance the durability of every element of the design project so as to quantify the level of future investment.

In summary, "good" design is often a subjectively judged concept, but it is necessary that hotel designers and developers try to explore its nature if design is to provide the maximum contribution to profitability.

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