CHAPTER 10

Operational performance

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Introduction

There is a popular management mantra that 'if you can't measure it, you can't manage it', sometimes expressed as 'you won't manage, what you don't measure'. Like many of these management myths, this expression has been credited to a number of management authors, including Kaplan and Norton (1996), Garvin (1983), and Peter Drucker (Singleton et al. 1988), among many others. Indeed it could be claimed to have become a standard of management practice.

The claim for the importance of measurement as part of management practice is based around three key issues:

- *Focus*. Defining the metrics most important to the business allows it to focus on the key issues and so to tune out those areas that are not related to those key measurements. Critics would argue that if the key measurements are not chosen wisely, that focus may be on issues which might lead the business off course – cost control over quality, for example.
- *Vision*. It is claimed that companies that monitor metrics can spot threats and opportunities faster than companies that do not. Metrics provide key insights into what is happening inside the business, and if benchmarked appropriately will also reflect overall trends in the industry, allowing potentially pre-emptive action to be taken.
- *Decision making*. Metrics provide a framework for making appropriate business decisions. With the numbers in black and white, the business is better positioned to make well-reasoned decisions on how to proceed. Again critics might argue that not all the key influences can be presented as black and white and relying completely on metrics might prevent more adventurous and rewarding decisions from being taken.

Two reviews of the hospitality research literature conducted in 1996 and 1997 (Teare 1996; Ingram 1997) identified the areas of business performance and business performance measurement as areas of growing importance and where more research and publications were necessary. It is perhaps strange that given these claims for the centrality of operational performance and its measurement, the number of research publications in the ensuing 10 years has been rather limited.

Measuring operational performance

Harris and Mongiello (2001) in their study of the key performance indicators used by general managers in the European

hotel industry identify a number of factors which influence the choice of appropriate measures for the hospitality industry. Their first characteristic is the market orientation of businesses, such as those in the hospitality industry, that have a high percentage of fixed costs to total costs. These businesses need to have a customer and revenue focus and so need to choose performance measures that take this into account. However, they also recognize that hotels and the hospitality industry in general involve the provision of three different elements – accommodation, beverage and food – which require a different focus. While the accommodation side has a service bias, the provision of beverages is largely a retail operation, while the provision of food also involves a production function. Each activity will have a slightly different cost structure and so a different orientation which needs to be reflected in the choice of performance measures or key performance indicators. Part of the results of their extensive study indicates that hotels tend to place considerable emphasis on financially based measures followed by customer-based measures.

Financial measures

Financial performance traditionally has been measured by using ratio analysis calculated directly from a company's financial statements. These ratios can be categorized into five main groups:

- Profitability ratios, which indicate the ability of a company to generate profits from its capital employed or assets (Mclanely 2000).
- Investment ratios, which evaluate business performance from the viewpoint of shareholders and investors (Adams 1997).
- Activity ratios, which show how efficient a company is in using and managing its assets to make sales and profits (Brigham and Houston 2004).
- Liquidity ratios, which indicate a firm's ability to pay off its short-term obligations (Brealey et al. 2001).
- Leverage ratios, which determine the proportionate contributions of owners and creditors to a business structure, for example the extent to which debt is used in a company's capital structure (Brigham and Houston 2004).

While not all the measures above are directly related to operational performance, many of the key measures used in

hospitality (indeed any business) are financial. The overall measure is typically profit, derived from sales revenue minus costs. This is then usually broken down in two main ways. First, overall performance may be sub-divided into different parts of the business (such as bar, restaurant, accommodation etc.) in order to understand the contribution each part makes to the overall performance. Second, it may be broken down by the 'elements of cost', usually called materials, labour and overheads. In the hospitality industry, this breakdown has been standardized by the adoption of a uniform system of accounts (Uniform System of Accounts for the Lodging Industry 1996).

Financial performance is monitored closely because ultimately the business only survives if revenues are greater than costs. But financial measures have only a limited value to the operations manager, since if performance is poor they do not provide enough detail to explain why this is so. This is because most financial measures are aggregate data, that is a combination of measures, and because there can be time lags introduced by the recording systems. For instance, labour cost percentages actually derive from four separate elements:

$$\text{Labour cost \%} = \frac{\text{Labour cost}}{\text{Total revenue}} = \frac{\text{Number of employees} \times \text{Average wage}}{\text{Number of customers} \times \text{Average spend}}$$

Hence, this single figure can hide a number of potential reasons for poor performance, such as:

- Too many staff on duty
- Average wages too high, perhaps due to overtime payments
- Fewer customers than expected
- Lower average spend than normal
- Any combination of the above

There are two other problems with financial measures. First, the value of money within a country is not constant. Due to inflation, $1 may buy less next year than it bought last year. If prices go up faster than wages in response to inflation, performance will improve but not through any real improvement in managing the workforce. Second, many hospitality firms are now international. When they compare the performance of all their units, they do so by converting all the financial measures into a common currency, using the current exchange rate. However, exchange rates vary over time and do not necessarily relate directly to local economic conditions and so can give a misleading picture of performance. For all the above reasons,

besides using financial measures, most firms will also look at non-financial measures.

Physical measures

The great advantage of non-financial measures is that it is possible to identify if performance has improved over time, irrespective of how much things cost, or how much things are sold for. Occupancy rate is a good example of a non-financial measure. Non-financial measures are particularly useful in measuring productivity,[1] for instance:

$$\text{Productivity of housekeeping} = \frac{\text{Number of rooms serviced}}{\text{Number of staff hours}}$$

Hence, if it takes 400 h to service 300 rooms, the operations manager would know that it takes on average 0.75 h (45 min) to service a room. On this basis, the manager could compare the performance of individual workers, or of teams, to see if some were more productive than others in order to identify what action to take.

Combined measures

As well as having financial and non-financial measures, it is useful to have measures that combine the two. Average spend is a good example here.

$$\text{Average spend} = \frac{\text{Total revenue}}{\text{Number of customers}}$$

Commonly used measures

In the hospitality industry, there are certain performance measures that are regarded as the most important ones. In the hotel industry, it used to be occupancy rate:

$$\text{Occupancy rate} = \frac{\text{Number of rooms occupied}}{\text{Total number of rooms}}$$

However, this measure has been replaced to a large extent, since the introduction of yield or revenue management,[2] by REVPAR

[1] See also Chapter 12.
[2] See also Chapter 11.

(revenue per available room). In the foodservice industry, the key measure has always been gross profit, measured as

$$\text{Gross profit} = \frac{\text{Sales} - \text{Food cost}}{\text{Sales}}$$

In fact, due to the complexity of each operation, there are many more measures apart from these that are important. Some can apply to all operations in the industry, while other input or output measures are specific to certain sectors of the industry. This is illustrated in Tables 10.1 and 10.2 that follow – derived from the UK's Department of Trade and Industry (DTI) sponsored initiative designed to improve the performance of small hospitality businesses in the UK.

The generic performance measures shown in Table 10.1 are taken from the DTI's Benchmark Index which is arguably the world's most extensive benchmarking resource for small businesses. Its aim is to help improve the competitiveness and profitability of business in the UK. Run by the DTI and delivered via trained advisors from Business Links, trade associations and private business support organizations, the Benchmark Index

Table 10.1 Generic performance measures

Key performance indicator	Data description
Profitability	Pre-tax profit/total sales revenue
Investment	Pre-tax profit/total assets
Labour productivity – measure a	Total sales revenue: total wage cost
Labour productivity – measure b	Total wage cost/total sales revenue
Innovation	Capital spend/total assets
Revenue development	Revenue from new markets/total sales revenue
Value added	Pre-tax profit/total wage cost
Supplier performance	Value of reject deliveries from suppliers/purchases
Staff turnover	Total leavers during the year/number of employees
Complaints	Value of refunds/total sales revenue
Energy consumption	Energy costs/total sales revenue

Source: www.bestpracticeforum.org

holds the financial data of over 156,000 companies and has a database of benchmarked performance data for a further 18,000.

The benchmark process, which is facilitated throughout by a trained advisor, is simple and practical and centres on the completion and analysis of an in-depth questionnaire aimed at gathering performance information about the company across all key business areas. This data, which is treated with the

Table 10.2 Sectoral performance measures

Key performance indicator	Data description
Hotels, guest houses and other accommodation providers	
Revenue per available room	Total rooms sales revenue/total number of rooms available
Room occupancy	Total number of rooms sold/total number of rooms available
Average achieved room rate	Total rooms sales/total number of rooms sold
Pubs and other licensed retailers	
Income per server	Total sales revenue/number of service staff
Revenue per square metre	Total sales revenue/square metre of retail space
Beverage gross profit %	Beverage gross profit/beverage sales revenue
Restaurants and catering companies	
Average spend per head	Total food and beverage sales revenue/number of customers served
Food gross profit %	Food gross profit/food sales
Beverage gross profit %	Beverage gross profit/beverage sales revenue
Conference venues and events companies	
Conference occupancy	Total number of actual delegates/total number of delegate spaces
Revenue per square metre of space	Total conference or event sales revenue/square metre of conference or events space
Average spend per head	Total conference or event sales revenue/total number of delegates

Source: www.bestpracticeforum.org

strictest confidence, is then fed into a secure database where it is used to provide performance comparisons against other companies of a similar nature. By analysing these comparisons, it is possible to highlight strengths and weaknesses. The generic performance measures have then been customized by the Best Practice Forum for different sectors of the industry by choosing widely used sector-specific measures, as shown in Table 10.2. These measures are then incorporated into the forum's business health check.

Measuring customer satisfaction

It can be seen from Table 10.2 that most of the measures used are related to the revenue, cost or profit performance of the business, but there are other measures of performance that may be critical in service businesses, notably customer satisfaction. The traditional way of eliciting customer feedback is through guest comment cards. Jones and Iannou (1993) identify a number of shortcomings of this method, the most significant of which is the unrepresentative nature of the sample (too small, self-selecting, skewed towards those with complaints) – so that results are biased. Such cards also have to be brief (in order to encourage completion), and hence the question design may not lead to valid results. Comment cards can be used, but their main role is to identify specific problem areas that may need attention.

Another obvious form of feedback is unsolicited compliments and complaints, often in the form of letters from guests or customers. As dealing with service failure is important, such letters can play an important role in retaining loyal customers. But for reasons similar to comments cards, they do not provide a representative sample of all customers on which to base judgements of overall satisfaction. Hence, the best way to elicit such feedback is through a well-designed and executed customer survey.[3] Many hotel companies employ market research firms to routinely telephone a random sample of guests 24 h after departure to ask them about their stay. Likewise, restaurant chains may survey customers at the end of the meal.

Ratios and percentages

Again as can be seen from Tables 10.1 and 10.2, many of the key performance indicators identified are either ratios or

[3] See also Chapter 13.

percentages, usually taking the performance of one part of the business and comparing it with the overall performance. Thus, net profit and labour cost are often expressed as a percentage of total sales. The main reason for using percentages is that they enable easy comparison between time periods and between units. For instance, it is difficult to know if £10,500 profit on weekly sales of £115,900 is better or worse than £9,950 profit on £108,300 sales. But when expressed as a profit percentage of 9.06% and 9.19%, it is clear that performance in the second week was better than the first.

Although using percentages makes comparisons easier, they may also be misleading. In the example above, net profit percentage was lower (9.06%) in the first week than in the second. But in terms of actual cash, more profit was made (£10,500) in the first week than in the second (£9,950). Since commercial businesses exist in order to make money (not 'make percentages'), the first week's performance is better than the second. It is surprising how many people forget this. For instance, restaurateurs may choose dishes to promote because they have a high gross profit, rather than those that have the highest cash return. For instance, you make more money from a prawn cocktail selling at £4.50, with a gross profit percentage of 50%, than you do from selling a soup at £2.00, with a GP% of 80% (£2.25 as opposed to £1.60).

Research in hospitality

A number of studies have tried to identify the performance measures used in specific types of operations. As early as the 1980s, research by Umbreit (1986) and Eder and Umbreit (1989) demonstrated that managers were judged on the basis of a balanced hierarchy of performance measures. Hotel companies judged the performance of their general manager on three levels:

- First level: short-term profit indicators
  - Gross operating profit, rooms division profit, food and beverage department profit
- Second level: 'tangibles'
  - Budget compliance, sales, occupancy percent, average room rate
- Third level: 'intangibles'
  - Employee attitude surveys, employee turnover, market share, advanced bookings, customer complaints and employee productivity

Haktanir and Harris (2005) considered the measures used in a 392 room five star, independent resort hotel employing a range of data collection methods in a case study approach. They found that

> Clearly, understanding performance measurement practice of an independent hotel requires an understanding of the context of the business, its constituents in terms of the decision-making process and the information flow. Additionally, it became apparent that the kind of measures used and the way the measures are perceived is different at various levels of the business. As a result of the simultaneity element of the service, which requires real-time measures during operations, more guest-related qualitative measures in the form of observation and verbal communication are utilized in operational departments. However, more quantitative measures are reported and used by the senior management in order to assess the outcome of the operational efforts through financial indicators. Thus, interestingly, performance measurement practice in the case hotel identifies guest satisfaction measures as the key indicators at the operational levels and financial measures at the senior management levels.
>
> Haktanir and Harris (2005: 49)

Bergin-Seers and Jago (2007) set their study in small motels in Australia that face particular performance management challenges due to resource shortages, lack of functional expertise and environmental instability. Using a case research approach, they identified the specific monitoring and measurement activities of small motel owner operators, which indicated that the successful managers employ a balanced approach by using a small number of key financial and non-financial measures which are monitored on a regular basis so as to identify problems before they get out of control.

The above discussions highlight the importance of identifying the best measures to use for your business and of building these different measures into a system that will help to maintain operational control and build towards strategic objectives at the same time.

Systems for performance measurement

If business performance measurement is to act as an essential tool to enable managers to achieve and to control their desired objectives as well as their strategies, then they must be coordinated into a coherent system that can be used to quantify both the efficiency and the effectiveness of the firm's performance. Jones and Lockwood (1995) suggest that this system

should have a number of hierarchical levels, with different measures corresponding to the distinct nature of the inputs and outputs of importance at the strategic, operations management or operating management levels. Southern (1999) also adopts a systems approach to performance measurement in hospitality. He offers a number of insights deriving from systems thinking, principally that in order to ensure good performance, operations should begin with defining the appropriate measures and standards in their operational systems, in order to provide a more systematic approach to the design, operation and control of key processes.

In the generic management literature, there are a number of recognized systems of performance measures that include:

- The Performance Pyramid System developed by Lynch and Cross (1991) to measure business performance through linking the overall company strategy with its operations after developing suitable measures for all levels in the company, following a similar approach to that suggested by Jones and Lockwood (1995).
- The Performance Measurement System for Service Industries (PMSSI) was developed by Fitzgerald et al. (1991) in order to measure the business performance in service companies based on the unique characteristics and features of such businesses. As a result, the PMSSI includes dimensions such as competitiveness, financial performance, quality of service, flexibility, resource utilization and innovation.
- The Integrated Performance Measurement System measures business performance through using seven financial and non-financial factors grouped into internal and external factors. This allows the causal relationships between factors to follow the use of resources from the point of allocation to the point of receiving revenues (Laitinen 2002).
- The Balanced Scorecard was developed by Kaplan and Norton (1992) to measure business performance by using a set of four different perspectives: the financial perspective, the customer perspective, the innovation and learning perspective and the internal business perspective. This approach uses both financial and non-financial measures of business performance.

Research in hospitality

It is this latter approach that has received the most attention from researchers looking at its applications to and implications

for the hospitality industry. Probably the first article addressing the balanced scorecard in the hospitality industry in the UK was written by Brander-Brown and McDonnell (1995). This article introduced the concept related to the then existing literature on hotel managers' activities and objectives. They then used a single case study hotel (131 rooms, five star, part of a hotel group) as a pilot study to develop a set of measures to use to form the balanced scorecard for this hotel. Having elicited the hotel's vision and objectives, they continued to build a series of critical success factors that would support these objectives and finally a set of measures to monitor the critical success factors. Their findings saw the balanced scorecard as a dynamic approach that would change from unit to unit and would change over time to maintain its usefulness and relevance.

Writing in the late 1990s, Hepworth (1998) conducted a review of the literature on the balanced scorecard. His review, following from his dissertation work, finds limited evidence of the application of the concept in the hospitality industry, other than the work of Brander-Brown and McDonnell (1995), and reports on his own work in the Food Services branch of the Royal Logistics Corps within the British army. He highlights some concerns about the problems of implementing the 'softer' dimensions of the approach and whether this U.S. management approach would sit well with the British culture.

Harris and Mongiello (2001) acknowledge the changes in the field of performance measurement based on criticisms of narrowness and profit-centric approaches towards more balanced and success-oriented views. Drawing on the views of hotel general managers working in chain-based European properties, their study considers three key dimensions of balance, orientation and coherence as evident in a manager's decision-making process through the selection, interpretation and application of their performance measures. Their research first established what performance indicators managers used regularly to determine their business progress and then tried to establish what these measures actually meant to the managers concerned, before progressing to the decisions these measures allowed managers to take. They found that the most important perspectives concerned human resources, operations and the customer, while in use it is the financial and customer-related indicators that are used as the basis for management decisions and consequent action. It would appear that human resource, operations and customer measures are used to inform the decisions taken that are then checked against their impact on financial performance.

Drawing on work conducted as part of a major study of small- and medium-sized enterprises across the hospitality, tourism and leisure sectors by the University of Surrey on behalf of an Industry Forum Adaptation Programme sponsored by the DTI, Phillips and Louvieris (2005) investigated 10 best practice organizations and the performance measures they used using a theoretical framework derived from the balanced scorecard approach. Results revealed that four key concepts drove measurement systems across these businesses. These were concerned with budgetary control particularly to ensure the achievement and improvement of revenue targets; customer relationship management as a way of improving quality of service and customer retention; strategic management in managing internal business processes; and collaboration both inside and outside the business to drive innovation and learning. Based on this work, they also proposed a balanced scorecard approach identifying critical success factors and key performance indicators that would be suitable for hotel businesses as an exemplar for further development.

Evans (2005) places the balanced scorecard as a tool for strategic implementation and not simply as a tool for operational control and uses a questionnaire to determine the detailed performance measures being used in a sample of hotels and to compare these responses with the balanced scorecard approach. His results suggest that in his sample, hotels are using a wide variety of measures from all of the four categories of the approach and not just relying on short-term financial measures. He does, however, question the nature of the link between the measures being used and the strategy and vision of the company that they are posited to support. He is concerned that managers do not understand the causal links inherent in the framework. He also stresses that there is also a need for a relevant benchmarking system and an understanding of integrating concepts or models such as the service profit chain.

Phillips (2007) has also pursued the strategic importance of the balanced scorecard by conducting a longitudinal study of a hotel company over a three-year period. He found that the implementation within the company had been successful at a number of levels. First, the technique had allowed a clear focus on operational/diagnostic control largely based on adherence to plan and engagement of all levels of the organization in responding to dynamic markets particularly in the areas of quality and customer satisfaction. However, he also found that the technique had been useful in maintaining strategic control to the extent that it helped to inform a key strategic decision to divest a section of the company's up-market hotel portfolio. He again stresses the importance of benchmarking.

Benchmarking

A quick browse through the literature on benchmarking will reveal a number of different definitions of the technique stressing particular aspects or issues. In essence though, benchmarking is simply a systematic way of judging the way your business performs against a reference point, exploring where and why your operation does not work as well as it could and implementing ways of closing the gap. There are, however, many different ways in which this simple idea can be put into operational practice. Figure 10.1 shows the potential range of approaches by combining the key focus of the benchmarking exercise with the potential set of reference points.

The key focal points can be distinguished as

- *Performance.* This approach to benchmarking relies on the identification of key indicators of performance, which are likely to include both physical and monetary measures, and comparing them against an appropriate reference point. This approach is sometimes called statistical or metric benchmarking.
- *Process.* This approach looks at the process and subprocesses that make up the operational capability of the organization – the way in which the key operations are carried out in the conversion of inputs into outputs. The focus here is

Focus		Performance	Process	Management Practice	Strategy
Point of Reference	Internal				
	Time				
	Departments				
	Units				
	Regions				
	Divisions				
	External				
	Competitors				
	Sector				
	Industry				
	Generic				
	Regional				
	National				
	International				

Figure 10.1
Finding a focus for benchmarking (*Source*: author).

on how things are done, not on the output level achieved. This approach is also sometimes referred to as best practice benchmarking.

In practice, these two approaches are really inseparable. It is difficult to identify the processes within the business that need to be looked at and will result in leveraging improved performance, if you have not collected the data upon which to identify the gaps. Likewise, on its own, knowing that your performance is 5% or 10% poorer than it could be is not much help if you cannot identify ways of changing processes to achieve the gains in performance you could achieve.

- *Management practice.* The focus here moves from the way in which the technology of operations works to the way in which the functions and operations of the business are managed.
- *Strategy*. The focus here moves further up the management hierarchy and is concerned with re-aligning strategies that have become inappropriate. While obtaining data and identifying best practice is relatively straightforward at the well-bounded level of management practices, it becomes much more difficult and therefore potentially more subjective at the level of strategy.

As well as identifying the focus of the benchmarking study, another key decision is choosing the point of reference against which your performance is to be judged. The majority of texts on benchmarking stress the importance of being judged against an external organization, but this should not preclude the potential of the relatively overlooked internal benchmarking. For a single-unit enterprise, unless it is very large and multi-faceted, there is little scope other than to go for external benchmarking but for a multi-unit organization, internal benchmarking can be conducted at a number of levels.

- *Time.* One common response to suggesting that a unit should benchmark itself against others in the chain is that this unit is very different from the others, so you wouldn't expect the same results, would you? However, comparing the same unit over time can be equally revealing. If performance in one week or month is significantly better or worse than another, there is value in exploring systematically what the circumstances were or what was done differently. For example, the nature of labour cost in the hospitality industry is such that it does not vary as directly

with the volume of business as most operators would like – it is a semi-variable or stepped cost. There is also likely to be a point at which increased volume will actually incur a reduction in overall performance, for example as overtime or agency staff have to be used, but very little analysis is done (or perhaps with lack of detailed data is possible) to explain and then control this variance.

- *Departments.* Within a large unit such as a hotel, there may be substantial improvements to be made from learning between departments. The banqueting department, for example, is well versed in the logistics of serving people at a distance and moving furniture and food from the point of storage or production to the point of service. There may be important lessons here for the room service team or vice versa.
- *Units.* The most obvious form of internal benchmarking is that between units of the same type within the same chain. The collection of data at this level should be consistent and straightforward as it will probably be part of normal reporting procedures to head office. One obstacle is ensuring that like is compared with like, as even within chains, some groups of units can operate in a very different environment to others. At this point, some form of cluster analysis – a technique that groups together units with statistically similar profiles – may be useful. Another technique used successfully at the University of Surrey in research studies exploring the relative efficiency of pubs, three star hotels and flight catering kitchens is data envelopment analysis. This technique based on linear programming will identify, based on a series of inputs and outputs, the most efficient use of resources and those units that act as a reference for others.
- *Regions.* Another way of maintaining at least some similarity in market conditions between units is to look at geographical groups. This could be grouped by county or regional boundaries, or could be based on city versus rural or airport as the particular circumstances of the chain dictate.
- *Divisions.* Within a large organization with a number of different divisions or brands, the potential for comparison and internal learning is much greater as the potential diversity of operations and approaches widens. There may be many things for hotel operators to learn from restaurant operations within the same group or between brands addressing different markets such as pizzas and fine dining.

The important message here is that before committing the organization to external benchmarking, it is important to consider the potential of internal benchmarking, which may be

achieved more easily. Aficionados of the latest management thinking will recognize the close resemblance between internal benchmarking and knowledge management – 'a process of identifying, capturing and leveraging knowledge to help the company compete' (O'Dell and Jackson-Grayson 2000). Internal benchmarking can in fact be a key driver for this process to surface both the explicit and the tacit knowledge within the organization that when shared can result in improved performance.

There is little doubt that for many people the key emphasis of benchmarking is on external comparison, either within the same industry or indeed outside the industry wherever best practice can be found. For Xerox, for example, benchmarking is 'the continuous process of measuring products, services and practices against the toughest competitors or those companies recognized as industry leaders and best in class'. Comparisons with best-in-class operators, wherever they are in the world, can reveal the gaps in performance, processes or practices that could bring about step change. Comparisons with different external points of reference can bring about insights of different types.

- *Competitors.* The emphasis here is on direct comparison with your closest competitors in order to reveal changes that could allow you to catch up with and preferably overtake them. Although we have moved on from the idea of reverse engineering where competitors products were taken apart so that they could be reproduced with modifications and improvements, there is still a feeling here of a combative relationship, and this could make it very difficult to establish useful dialogue. There may be operators who would be reticent about giving information to their 'competitors' even though by doing so they could improve the competitiveness of the sector as a whole.
- *Sector.* As well as comparison between firms in the same sector, comparison between sectors can also be very revealing. A 'league table' of operations within the sector will allow operators to position themselves in the sector, but comparison with other sectors may reveal that they are more effective at controlling certain costs or carrying out certain tasks.
- *Industry.* Similarly, comparisons of all firms in the industry can reveal the relative position of particular firms or sections of the industry, but even more benefit may be gained by cross-industry comparisons. Hotel operators looking at the way airlines handled their reservations and pricing policies has led to the introduction of yield management and the reported substantial gains in income and profitability that this has brought about.

- *Generic.* This leads then to the view that benchmarking particularly of processes should be done with any operation in any industry in any part of the world that can demonstrate world-class performance. If a fast food operation is interested in improving customers' perceptions of queuing, then they could do worse than look at the way Disney handle queues for their theme park rides. By going outside the immediate industry, the problem of competition is removed and the relationship can assume a more collaborative style.
- *Regional.* Carrying out benchmarking of all similar businesses in a local or regional area could also be very revealing.
- *National.* Comparisons at the national level can also be useful. Recently, Pannel Kerr Foster celebrated the 25th anniversary of the PKF UK hotels database of performance with a total sample of 351 hotels covering nearly 57,000 rooms throughout the UK with separate analyses possible for London, England (excluding London), Scotland and Wales. These reports and those from other similar consultancies provide a wealth of comparative data for those firms taking part in the survey but perhaps lack statistical validity as a national standard.
- *International.* International comparisons can highlight many issues that comparisons within a country would not. For example, calculations of the number of full-time equivalent employees per hotel room in Africa might result in a figure over 2, but for a hotel of a similar standard in Scandinavia, it might be around 0.6.

Research in hospitality

There has been a significant interest in studies considering benchmarking in the hospitality industry. These studies can be organized against the four focal points identified above.

Not surprisingly, many of the studies have centred around benchmarking performance, and many have used a multivariate technique called data envelopment analysis (DEA). An early use of the technique is to be found in Morey and Dittman (1995) who compared 54 hotels within a U.S. national chain, combining the physical characteristics of the property, local market or environmental factors and factors controllable by the GM such as expenditures on salaries, materials and energy with outputs such as rooms revenue and customer satisfaction with the physical facilities and the service provided. Johns et al. (1997) also used data from with a single hotel chain, following an internal benchmarking approach, but with only 15

hotels in the chain, their data was limited and so was their range of the input and output variables needed to support the DEA. Their inputs included number of room nights available, total labour hours, total food and beverage costs and total utilities cost, while their outputs were room nights sold, total covers served and total beverage revenue. While their results showed only limited discrimination between the performance of the 15 hotels, it was able to identify that three hotels in particular were not performing at the same level as the rest and needed further investigation. Wöber (2000) reports on the development of a web-based system which allows hoteliers in Austria to input their hotel data and receive an assessment of their overall efficiency compared to other hotels in the database. The system offers the calculation of key financial ratios for each hotel plus a longitudinal analysis for several consecutive periods to allow the identification of trends.

Of particular importance is the possibility of building a peer group of hotels with similar operational characteristics to act as 'best practice' partners. Hu and Cai (2004) focussed specifically on labour productivity, but in this case drew a sample from a specific region, the state of California, and followed an external benchmarking logic. Their eventual sample size was 242 hotels, split into three segments – B&B, limited service and full service hotels to account for disparity in hotel revenues and operational characteristics. They then used the productivity score derived from their DEA analysis to explore whether factors such as service quality, the physical make up of the properties and employees' expertise level could explain the variation in performance and allow for a clearer benchmarking comparator. Barros and Mascharenas (2004) and Barros (2005) report on an exploration of efficiency within a Portuguese state-owned chain consisting of 43 hotels based on cross-sectional data from 2001 again using DEA as the key tool. This article again suggests that the strength of DEA is in providing a benchmark against which poorly performing operations can be judged and remedial action taken. Finally, Sigala et al. (2005) report on a study of productivity in three star hotels in the UK focussing on the rooms division and using a stepwise DEA approach on data received from 93 hotels. An extensive set of input and output data revealed that the factors affecting room division productivity were as follows: achieved room rate, room nights sold, non-room revenue, number of rooms, front-office payroll, administration and general expenses, other payroll, other expenses and demand variability.

Parkan (2005) uses an approach that he has developed called Operational Competitiveness Rating Analysis (OCRA) to

compare the results of two hotels of different character owned by the same family-owned company. He uses a common set of cost and revenue data collected over a 13-month period based on existing profit and loss statements to compare the performance of the hotels, first to each other and then benchmarked against industry standard data. This allowed him to draw conclusions about performance in the five most important cost and revenue areas – room costs, food and beverage costs, salaries and wages, revenue from room sales and food and beverage sales.

Yasin and Zimmerer (1995) move away from the purely performance-related issues in benchmarking to incorporate aspects of process and suggest that establishing operational metrics for both the operations and the service subsystems could result in a level of in-depth analysis of processes which would result in significant and continuous quality improvement. This is picked up in a major study reported by Min and Min (1996), Min and Min (1997) and a follow-up study by Min et al. (2002). They identified 14 salient service attributes relevant to Korean luxury hotels based around the two major criteria of rooms and front-office service derived from previous research studies and other sources. They then conducted a survey of 113 guests staying at six different luxury hotels in Seoul asking them to rate the relative importance of these attributes on a five-point Likert scale. In order to provide a benchmark, at the same time, the subjects were asked to rate their perceptions of the service performance of the six hotels on each of the 14 attributes. The data were then analysed using an analytic hierarchy process (AHP) through a series of pairwise comparisons. They then used the results of this analysis to verify statistically the competitive gaps between one hotel's performance and that of its competitors and so identify possible actions to be taken to improve performance in critical areas.

The third area for benchmarking activity is the area of management practice, and some research has been conducted here. Ogden (1998) starts the debate in this area by suggesting that there is a need to view benchmarking as a means to disseminate best practice especially in small hospitality organizations, and he views external agencies such as grading or award schemes as a good means of achieving this. This approach is picked up by Kozak and Rimmington (1998) who again view classification and grading schemes, alongside Investors in People and Excellence Through People, as ways of encouraging small businesses to make improvements. Phillips and Moutinho (1999) concentrate on 15 top hotel groups in the UK for their study of management practice in strategic planning, and they develop a model for measuring the effectiveness of a company's strategic

planning process – the Strategic Planning Index (SPI). They then use this index to compare this process for a single hotel with its peer group and so identify gaps. This approach was also used (Phillips and Appiah-Adu 1998) in a slightly earlier comparison of strategic planning in a series of hotel groups in the UK, which showed some significant gaps between the quality of the planning processes and theoretical best practice. Warnken et al. (2004) tackle the increasingly important area of environmental practice and performance in their study of hotels, eco-resorts, condominiums and caravan parks in Queensland, Australia. While their sample size was too small to enable a statistically robust quantitative analysis, they do raise some concerns about the implementation of environmental management in general and the role of environmental accreditation schemes in promoting best practice in particular.

There is limited evidence of research at the level of benchmarking of strategy itself. Drawing on a sample of 189 hospitality firms in Spain, Garrigós-Simón et al. (2005) link the Miles and Snow strategy typologies to business performance. Their analysis revealed four dimensions of performance: profitability, growth, stakeholder satisfaction and competitive position, which they subsequently merged into a single overall performance measure. Their findings reinforced the existing literature in that the prospector, defenders and analyser types had significantly better performance across all variables than the reactors. Within the successful types, prospectors were almost always associated with superior performance, although analysers scored better in the area of profitability.

Phillips et al. (1999) used neural network analysis to consider the effect of strategic planning on business performance in hotels. They distinguished between aspects of the thoroughness and sophistication of the strategic planning process and its market-led formality. While the degree of thoroughness and sophistication of the strategic planning process had a direct positive effect on overall performance, the degree of formality and rigidity of the process could be seen to hamper overall performance.

Once a rigorous benchmarking process has been used to identify gaps in performance at whatever level and against whatever comparator, there is then a need to consider how performance improvements can be made.

Performance improvement: the input–output ratio

For the purposes of this analysis, input refers to the resources used in making a product or providing a service, whilst output

is the product or service itself. Inputs may be transformed, that is raw materials, or they may be transforming, that is infrastructure and labour. Early approaches to performance improvement identified two broad strategies. Firms, particularly those with high fixed costs, could concentrate on increasing output whilst holding inputs steady – the so-called market-oriented approach. Alternatively, for those firms with a high proportion of variable costs, the strategy of 'cost reduction' was supported, that is hold output steady but reduce costs. But this model of market orientation or cost reduction seems rather too simplistic. There are in fact five ways in which the ratio of inputs to outputs can be improved, as illustrated in Figure 10.2.

Let us consider each of the five possibilities shown in Figure 10.2 in turn.

- *Decrease inputs (I) and constant output (O).* This option identifies circumstances where existing provision is inefficient – that is to say corrective action should be taken by changing the inputs to achieve the same level of output but at lower cost.
- *Decrease inputs, relatively smaller decrease in output.* This option assumes that a cost reduction exercise will have some impact on output, but that the fall in output will be more than offset by the saving made.

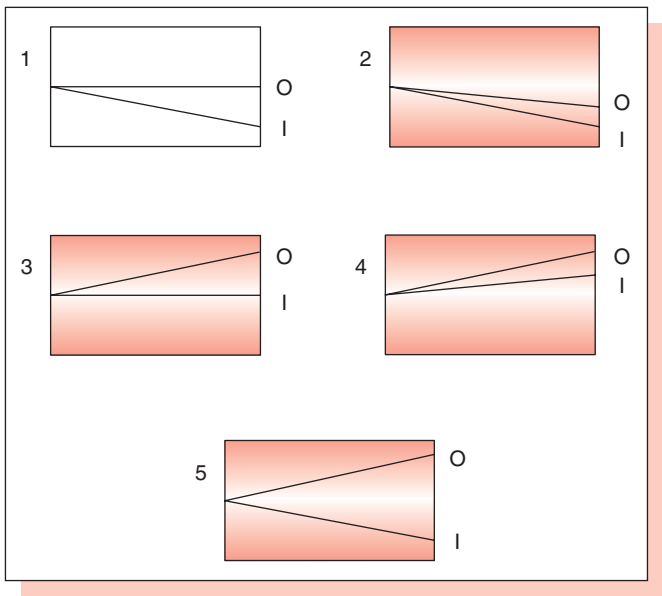

Figure 10.2
Models of improving performance.

- *Constant inputs and increased output.* This option also implies inefficiency, in that the same inputs could produce more output. Unlike option 2 which looks at the operation's costs, this option suggests a marketing approach.
- *Increase inputs, relatively greater increase in output.* This too is a market-orientated approach, but one that recognizes that the change in output can only be achieved at some extra cost.
- *Decrease inputs and increase output.* This option is theoretically possible, but is unlikely to occur very frequently. This is the most challenging alternative and can only be achieved by innovation, that is doing things differently.

For a hospitality manager wishing to improve performance, the value of these five options is that they provide a clear framework for considering the effect of any particular action. However, options 1 and 3, where either input or output is held constant, are extremely difficult to achieve in practice. It is much more likely that a proportional improvement in performance will take place, as explained by options 2 and 4. These options help to forecast or predict the likely effect of a change and set the criteria for measuring the impact of that change.

Research in hospitality

Gray et al. (2000) working in New Zealand isolated the results of 21 hospitality companies from a larger multi-industry sample of over 1000 firms. Comparing the results of the hospitality firms and the top performing service firms, they found some interesting differences. They found the top performing firms were certainly more market oriented and that these firms also encountered greater technological turbulence and had to deal with more powerful suppliers. While there were few performance differences between the two groups, they suggest that hospitality firms should improve their market orientation to be able to cope with future market turbulence where forming closer relationships with customers will be more important. They also suggest developing a corporate culture which emphasizes innovation and the development of efficient new service development processes.

Sigala and Chalkiti (2007) report on their study of the externalization and utilization of tacit knowledge in the Greek hotel industry. Following a disappointing response to their questionnaire survey, they conducted follow-up qualitative interviews which showed a general lack of awareness of tacit knowledge and how it might be used to improve performance.

Summary and conclusions

This chapter has concentrated on four main areas of operational performance – identifying methods and metrics of measurement, combining those measures into a performance measurement system, using benchmarking to identify possible gaps in performance and methods of improving performance to close those gaps.

In all of these areas, considerable research work has been identified that specifically considers the nature of the hospitality industry and the ways in which these generic tools can be applied. Teare's (1996) and Ingram's (1997) calls for more research and publications in this important area would seem to have been answered. However, a consideration of the scale of research and publications in the generic management literature in this area shows that the hospitality industry and hospitality research is still somewhat off the pace.

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