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Chartered Institute of Management Accountants

Compass/NHS trust Case study

Demonstrating the value of steam valve technology

Compass Group, a FTSE100 company, is one of the largest food and support service businesses in the world, with annual revenues of £11 billion and operations in 55 countries worldwide. Compass Group UK and Ireland employs some 52,000 employees working at over 7,000 client sites providing food services including employee restaurants and coffee shops, defense site services, corporate hospitality, school and hospital meals, and support services like cleaning, building maintenance and security. This case study illustrates how the Compass management accounting team demonstrated the value of steam valve technology for patient meals at The Sherwood Forest Hospitals NHS Foundation Trust.

Compass Group and Sherwood Forest Hospitals NHS Foundation Trust case study

'Steamplicity' driving energy savings, reducing waste and carbon emissions

The Compass Group recognises that there is a significant environmental impact associated with its operations, products and services. This is why one of Compass' five 'pillars' of corporate responsibility is the environmental pillar. Compass has defined environmental targets in areas such as waste management, water management, transport management and pollution prevention.

Although Compass is not directly responsible for the procurement of utilities, equipment, fuel, etc for most of its clients, the company works closely with them to consider how best to improve the environmental performance of their operations. One such example has been to offer steam valve technology to a number of its clients, including, through their Medirest healthcare division, Sherwood Forest Hospitals NHS Foundation Trust[1].

The Steamplicity concept was developed by Medirest, through an exclusive arrangement to use the Swiss developed valve system which has also been used on Marks & Spencer's Steam Cuisine retail meal products. Steamplicity is based on complete meals with a nutritional mix of fresh and cooked ingredients, served in containers with patented steam release valve lids. The packs are microwaved to pressure steam the food for maximum retention of texture, colour and nutrients.

Patients choose daily from a menu of 20 hot dishes, with additional meals to cater for special dietary requirements. Each ward kitchen has a bank of five standard 1,000W commercial microwave ovens and an upright refrigerator to hold the chilled meal packs, which are delivered daily. The total ward equipment cost is about £2,000, and the food itself must comply with the average hospital budget for patient's food. The staff hours on the wards do increase slightly overall, as hostesses take over the patient meal service from the domestic cleaning staff, however alongside the labour savings from reduced service hours in the kitchens, the extra cost is broadly negated.

Patient care has improved since Steamplicity was introduced as a result of removing the meal service role from the domestic cleaning service. Having two dedicated roles allows one to focus on maintaining high standards of cleanliness and the other to concentrate on the patient meal service. The system also allows space which had formerly been used for in hospital meal preparation to be converted to other purposes.

Measurable benefits

One of the roles of the Medirest management accountants when the Trust was first considering implementing the Steamplicity system was to demonstrate the costs and benefits compared to their existing in-house cook/chill and regeneration trolleys.

The main costs and benefits that were identified were: a change in the roles and responsibilities of staff on the ward; an increase in the cost of the meal itself; labour savings arising from a much simpler and smaller on-site kitchen arrangement; energy savings as a consequence of no longer cooking food on site; energy savings associated with using microwave ovens rather than the traditional regeneration trolleys; and much lower repair and maintenance costs than those generated from ageing kitchen equipment and facilities.

1 Medirest supplies hotel services at more than 130 NHS Trusts and private hospitals

An example of the model prepared by the accountant is shown below.

	Potential cost changes to Trust contract to implement steamplicity	Annual cost £
1	Extra cost of hostess hours- taking orders and serving meals	(xxx,xxx)
2	Reduced cost for cleaning staff- reverting to dedicated cleaning	xxx,xxx
	Net labour cost	0
3	Increased food cost	(xxx,xxx)
4	Double running cost	(xx,xxx)
5	On-site kitchen labour savings	xxx,xxx
	Contract extra cost to Trust	(xx,xxx)
	Potential savings for Trust	
1	Kitchen energy saving	xx,xxx
2	Energy saving microwaves v Regen ovens	xx,xxx
3	Reduced kitchen repair/ maintenance costs	xx,xxx
	Total savings	xxx,xxx
	Overall net saving/ (cost) for Trust	xx,xxx

Medirest has implemented Steamplicity at a number of sites and uses this knowledge to inform estimate savings for contract changes such as Sherwood Forest Hospitals. Benefits of this system, for an average large hospital, include an estimated saving of £50,000 in energy costs, with associated reduced carbon emissions per year, when compared to the cost of regeneration trolleys.

Additional benefits, not quantified, include reduced food waste (since meals are cooked only when needed and have a two day shelf life) and reduced packaging waste (since the majority of packaging for Steamplicity is recyclable).

The management accountant driving waste reduction

The shorter lead time that this meal ordering system allows, means that more patients order and receive exactly what they want. Research has shown that patients are leaving less food on their plates compared to previous catering arrangements, and it is much easier to provide the same service to late admissions. However, providing such a variety of meals means that there will invariably still be some waste (despite a shelf life of 2 days). To minimise this the on-site management accountant built a tracking system designed to inform the site meal ordering process.

The tracking system is based upon weekly spreadsheet returns from the kitchen manager, which show all the meals ordered by patients in that week for each ward. This feeds into a summary sheet, which then totals by each meal and shows how many are ordered by patients compared to the number delivered into the hospital. It is this schedule that is then used to establish ordering patterns, and measure resultant waste. When first introduced it is difficult to predict exactly what patients will require, so refining this process quickly is critical to keeping waste to a minimum.

By establishing patient preferences, predicting demand, and measuring weekly waste, this process has halved the weekly meal waste in the first six weeks of operation at King's Mill Hospital.

Read CIMA's latest report Accounting for Climate Change at **www.cimaglobal.com/sustainability**

The report includes case studies from other organisations and looks at how management accountants, their skills and their tools can provide business intelligence to support strategy and influence decision making, driving their organisations to mitigate and adapt to climate change. If you are interested in sharing your own insights and experiences in this area, we would be delighted to hear from you. Please email us at **research@cimaglobal.com**

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