

Thirty per cent Real Cost Reduction by the year 2000

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Mike Thomas qualified as a Chartered Quantity Surveyor in 1972 and joined Whitbread two years later. In more than twenty years with the company he has been quantity surveyor, budget controller and project manager and worked in property, accounts, taxation and R&D departments. Most recently he was Strategic Procurement Manager for Construction Operations which led to the introduction of Partnering for new-build construction work.

During his spell as R&D manager Mike recognised the potential of Value Engineering and took VE into Whitbread's property development function. Since leaving Whitbread at the end of 1997 Mike has developed his own consultancy offering Facilitation, Procurement and Value Engineering. In his spare time he plays guitar(s).

ABSTRACT

This paper outlines the beneficial changes, driven by VE principles and processes, to Whitbread's approach to procuring its annual ongoing refurbishment and property development programme (£75million 1993, £400million 1998).

Specific attention is paid to the implementation and effects of

- a. Value Engineering
- b. Partnership Sourcing
- c. Supply Chain Management
- d. Information Technology

by reference to the business and human relationship issues, changes in the cultures of Whitbread and the UK Construction Industry and Benchmarking for continuous improvement.

Whitbread is a leading proponent of Value Management and of Construction Partnering and Mike Thomas sits on a number of industry research and development bodies.

WHITBREAD AND THE UK CONSTRUCTION INDUSTRY

Whitbread is a top-50 blue chip Leisure Retailer with a strong portfolio of national and international brands in the UK including: Marriott Hotels, Travel Inn, TGI Fridays, Pizza Hut, Beefeater, Brewers Fayre, Heineken, Stella Artois, Murphy's, Labatt's.

Whitbread turns over £3billion per annum of which about 66% is spent on bought-in goods and services ranging from paperclips and pens to the development of a 400-bed Marriott Hotel at Heathrow – around £35million. The remaining expenditure is on duty, taxes and salaries.

Of this £2billion expenditure construction and property development accounts for almost £400million in the current year - 20% of the total - and new construction (ie greenfield sites and conversion of major acquisitions) accounts for three-quarters of this. Whitbread employs around 150 property professionals in a variety of roles around the group - site finding, acquisition, development (including architects, designers, QSs, project managers and engineers) and property management as well as employing outsourced consultancy when appropriate.

Until early 1996 all of Whitbread's 600 plus property development projects per annum were let on traditional competitive tender, specification plus drawings, through the linear route of architect - quantity surveyor - tender - contractor - subcontractor.

The part of the construction industry that supplied Whitbread's needs at this stage was the small contractor - typically under £5million turnover and probably a lot smaller - carrying out £50k to £200k alterations projects.

In 1994 the first major review of the UK Construction industry for more than thirty years was published. In "Constructing The Team" Sir Michael Latham wrote "A productivity target of 30% real cost reduction by the year 2000 should be launched" and suggested that "Implementation begins with clients."

He suggested moving away from the confrontational behaviour of the past into more cooperative working as a way of achieving the productivity target.

Whitbread had already moved some way towards that target since the introduction of Value Engineering in 1990 and that's where this story starts.

VALUE ENGINEERING – FROM 1990

My background is in quantity surveying (cost controller) and project management but in December 1989 I was transferred to head up Construction R&D – an acknowledgement that construction was an integral part of Whitbread's strategy for growth.

One of the projects I inherited in January 1990 was Value Engineering – being brought to the company by an English QS practice.

Whilst the cost savings were impressive I wasn't convinced that the process added anything to the armoury of a well-trained and competent quantity surveyor so I carried out some research of my own and discovered SAVE. Actually I discovered an advert for SAVE '90 at Baltimore and immediately decided that the best place to find out about VE was in the USA.

Consequently in April 1990 my manager and I attended SAVE '90 and I have to admit that my eyes were opened. After the first seminar (Art Mudge on the Introduction to VE) I was hooked and couldn't wait to try it out back home.

While we were here we visited a number of VE and Construction companies and we are very grateful for the time given to us. I would particularly like to thank Mary Ann Lewis and Larry Zimmerman. I don't suppose they knew just what they were unleashing back in the UK!

However, when we returned, everybody reckoned they were doing VE anyway and didn't need five-day workshops at enormous expense. I had to work on a long-term strategy to get just one VE Workshop accepted.

This took until January 1991. We decided to do it properly and so were looking for a five-day, 40-hour, workshop run by a facilitator with a track record and we chose a Brewers Fayre for the study.

We appointed Hanscomb in the UK and they flew over Mike dell'Isola. We had a workshop team of a dozen. Designers, engineers, surveyors and operators, all of whom had worked on Brewers Fayres before and none of whom believed in VE.

The workshop got off to a flying start – we spent a long time comparing notes on the Brewers Fayres we'd all been involved in – and then we came to the Function Analysis. Here we discovered that nobody agreed on the specific functions of a Brewers Fayre compared with a pub or with a TGI Fridays – or even with a McDonalds!

I was nearly tearing my hair out as it took until Wednesday afternoon before Mike conceded that we had identified the primary and secondary functions let us off the hook and we got onto the Creative Phase.

Now the ideas really flowed and the result was a 15% saving on a concept which we had been building for five years. Considering each building cost £900k and we were building fifty a year that easily repaid the commitment of five days!

Following on from that workshop we invited Mike over again in June to run two three-day workshops and a one-day senior management awareness seminar.

The results of these were the adoption of VE and my installation as VE programme manager in the company. In the next twelve months I ran over thirty one-day workshops on a variety of projects and topics identifying benefits of over 10% on each one.

Some of the proposals identified by various workshop teams led to major strategic programme benefits:

Travel Inn moved from traditional masonry construction to timber frame at no extra cost. This shortened the construction period from 24 to 18 weeks raising additional revenue through room lets and food & beverage sales. Typical trade was about £8k per week. This alone gave a return of £48k on a build cost of £800k. Additionally the factory controlled nature of the build process improved actual thermal and acoustic insulation leading to lower running costs.

TGI Fridays went further. They adopted a factory prefabrication route. This, and a series of VE workshops on layout reduced the build cost from £2,600k to £1,600k and achieved a 13 week construction period - down from 26. TGIF trades at about £50k a week, so that's an additional £1,300k benefit - the project is almost free!

One Beer Company workshop resulted in the cancellation of a project. The original proposal was to build two tanks with associated pipework to dose liquid hops into the beer at the end of production. However the workshop team identified an easier way of dosing the liquid hops without the need for tanks.

Whitbread adopted Computer Aided Design and Visualisation to improve communication through the design process. This helped non-construction operators to see what they would be getting.

R&D also installed the first project management software in the company - a move which soon led to closer examination of site performance.

PROCUREMENT STRATEGIES FROM 1993

It was onto this scene that, in late 1992, we had a Strategic Procurement Review of all Whitbread's purchasing. The result was a four-point plan to reduce the real cost of bought-in goods and services by 10%. The strategy was to...

- aggregate demand across businesses
- reduce supplier-base
- optimise specifications with suppliers
- improve continuously

There were many obstacles to achieving this strategy especially in the area of property development and, whilst I want to talk about improving performance we must not ignore the roadblocks to this process- the human issues.

We used the Boston Matrix to determine our strategies for different categories of spend.

We identified that property development was a high-value spend for the company (*£90million per annum at the time*) and high risk (*failure to deliver impacted on the company's ability to deliver profit growth*). In our book this put it in the top right box which was potential Partnering territory - definitely NOT the traditional buyer "chew 'em up and spit 'em out" approach which was the way we, and other clients, had been carrying out our construction procurement for years.

This strategy fitted with Latham's principles and the timing was very fortunate - just at the time he was issuing his report.

I facilitated two workshops for Whitbread management one with their contractors and one with their consultants. We defined the functions of the existing relationship as we all saw it by asking what did they want (and what were they getting) from a relationship with Whitbread what did we want from such a relationship what problems were we causing them (and they us) how could these problems be solved?

The major blockages to improving the situation were

- lack of continuity of workload,
- uncertainty of payment,
- inability to challenge the specification,
- insufficient time to plan effectively.

From these beginnings we identified that with a high risk, high value case we should not be beating up the market. We also identified that the way to better value was through longer-term relationships. This had been identified through using VE-style workshops with our contractors and consultants.

IMPLEMENTING PARTNERING

We took the principles of Partnering around the businesses and we found that

- Our in-house teams were cynical
- Our consultants were hostile
- Our contractors were disbelieving

A similar story to the response to VE!

The UK construction industry is a technical, not an academic, industry and the reading level is low. Despite the publication of *Constructing The Team* and many articles in the press very few Property professional in or out of the company had really taken time to understand the principles involved.

I took a presentation to the various Property Manager forums around the group in late 1994 with the proposal that we pilot Partnering in one or more of the businesses and this was taken up, after some considerable negotiation, by one regional company.

We were all learning at that stage but we did identify a single contractor capable of carrying out the work and the relationship started in early 1995. This was a limited success as it was based on serial tendering but it provided us with a start.

The next stage was to take it national with the new-build programme which really took off in 1995 - something like one hundred or more £1million projects plus a number of Marriott Hotels at anything from £10 to £35million. Suddenly we were right in the top right corner of the high risk and high value box!

SAVE INTERNATIONAL CONFERENCE PROCEEDINGS 1998

We had a very structured plan which we based on proposals in *Trusting The Team*, published in July 1995, and we started the selection process in September 95.

Our objectives were to:

- take as many contractors as were proposed by our property managers at the start (46),
- reduce the numbers by analysis of their size and capability,
- interview the remainder (26) AND respond to their questions
- issue "tendering" documents to 14
- negotiate and discuss
- appoint (6)

Although this took six months we ended up with world class performers who have raised the performance of our in-house and consultant teams.

Back to workshops – client representatives and contractors took part in a *Partnering Workshop*, targeted at agreeing a Charter that every business could sign. We were very privileged to have Sir Michael Latham speak and contribute, and the team atmosphere was excellent even in those early days.

BENCHMARKING AND CONTINUOUS IMPROVEMENT

Now for the successes through Partnering...

Whitbread and their New Construction Partners have had considerable success increasing Value in the procurement of new construction since the introduction of Partnering in April 1996.

Through VE we had developed design and cost models for most concepts and that gave us the benchmark for measuring continuous improvement.

There was considerable discussion about the level of detail of measurement. The Qs wanted to measure about three hundred items - traditional professional prejudices always looking for one item which is a penny cheaper - but we settled on just three key areas:

COST,
TIME and
MANAGEMENT & QUALITY

We also identified a slightly larger number of measures which were critical to the client - our operator colleagues. Function Analysis again playing a key role in determining what to measure and why.

I want to list a number of these improvements under those three areas:

COST

The cost of standard Travel Inn room is now back where it was five years ago - around £22k.

The new Marriott Hotel at Heathrow is being built for £84k a room - a price which the hotel and construction industries said could not be achieved in London.

Beefeater have reduced their model new-build costs by a figure approaching 15% - now below £1million.

Beefeater have had no cost overruns in eight projects (the previous year produced nine projects which each overspent by a figure exceeding 5%).

Brewers Fayre have maintained their costs over the eighteen months.

Subcontract prices have tumbled through certainty of work and of payment - we are not holding retentions on contractors and the contractors are not holding retentions on main subcontractors.

Contractors are making consistent and acceptable profit on Whitbread projects.

Whitbread and the contractors are sharing the benefits arising from design changes.

TIME

Precontract times have been considerably reduced as contractors get involved early in the design phase.

Travel Inn are one week faster on site at 17 weeks and four weeks faster to site through the reduced tender evaluation period. Put in context this is 60 rooms @ £35 @ 7 days @ 90% occupancy = £13,230 per week on the room let excluding food and beverages. Typically this would drive an additional £5,000 per week giving £18,500 gross for each week of early trading.

Beefeater have taken a week off the 22 week programme for a combined Beefeater and Travel Inn.

Brewers Fayre are targeting 15 weeks - down from 19.

MANAGEMENT & QUALITY

Snagging is being reduced. Defects and snagging on handover is a major problem in the UK construction industry - zero snagging is the target for this year.

The partners are working with our sixteen regional MTC/reactive repairs contractors to identify the major maintenance problems and cure them at design stage.

Partners are subcontracting the defects element of new buildings to MTC contractors. This means that the house manager has only one number to ring and doesn't have to think about the route for obtaining his support. It also focuses minds on the cost of remedying defects.

We have been told that our projects are now FUN TO WORK ON by our contractors and subcontractors alike.

All contractors and a number of major subcontractors (eg timber frame, plumbing and electrical) are involved in the initial budgeting and they sign up with the Whitbread management to delivering on budget and on time.

The time and effort which would have been wasted on competitive tendering is being put into post-completion reviews and planning for the next jobs.

All contractors are aware of the site finding programme (including target areas) and assist in bringing sites to Whitbread.

Consultants are now aware of the real problems faced by contractors and are working AS A TEAM to solve problems. In one project the contractor inserted a price of £2,000 instead of £20,000 against one item. Historically this would have led to lots of finger-pointing and bad feeling with the contractor spending the remainder of the project concentrating on mitigating his loss. After a two-hour project team review meeting it was agreed by the operator to omit the item. After post-completion review this item has now been omitted from the design of subsequent projects!

Team members are being seconded across disciplines. A contractor's buyer has just completed a year in Whitbread's procurement department.

All Whitbread businesses have hot desks for contractors and consultants - and this is being reciprocated.

NEXT STEPS

We are developing the Supply Chain Management side of the process. We're taking a leaf from our Food Procurement department who know for every joint of meat sold (because they have a due diligence requirement to do so) the life cycle of the animal and its grazing pasture AND the chemicals used on that grass.

We are working, for example, with Plumb Center to develop a proper standardised M&E materials logistics operation for bathrooms and toilets and with Stewart Milne Timber Systems to develop more standardisation in woodwork detailing. We have held VE workshops both on the process and on the standard units and sections.

All these initiatives will be aimed at driving increasing value for Whitbread (capital costs, repair, maintenance, refurbishment, reuse and energy consumption aspects). They will also help to eliminate duplication of work across consultants and contractors making the whole process SIGNIFICANTLY more efficient and effective.

Because of our involvement in introducing VE and Partnering I was fortunate to be selected for the Latham Working Group 12 which drafted the best practice guide for partnering "Partnering in the Team" last year and the Construction Industry Board's Value Management Group. These groups are looking to take Partnering and Value Engineering/Value Management further into the UK Construction Industry.

HOW MUCH REAL COST REDUCTION?

Finally, on the last slide, a measured example of success. When I started this analysis I was looking for 30% to reflect the Latham target. However, by looking at the total VALUE of the project to the customer the five-year benefit is getting close to 50% on comparable Beefeater and Travel Inn projects twelve months apart with the same construction team.

References:

Latham, Sir Michael, (1994),
"Constructing The Team", HMSO

Bennett, J and Jayes, S, (1995),
"Trusting The Team", CSSC, Reading, UK

Construction Industry Board, (1997),
"Partnering In The Team", Thomas Telford