BBRT
Benchmarking Project

"Beyond budgeting" research

Report on an exploratory survey

The purpose of this exploratory survey was to test whether companies that have moved towards the BBRT model gain competitive advantage by doing so. The data for the survey was collected in 2000 at 'beyond budgeting' courses and conferences held in Australia, Denmark, United Kingdom and United States of America.

Analysis of the data shows that there is a statistically significant positive correlation between the adoption of the "BBRT" management model and superior competitive performance.

The "BBRT Benchmarking Project" has been developed both to support research into 'beyond budgeting', and to assist companies that are interested in implementing the BBRT model. Anyone who wants to use this tool should go to www.project.**bbrt**.org where they can learn more about it, complete or edit the questionnaire, and request reports that show how their company's current management model compares with the BBRT model.

Robin Fraser and André de Waal

17 December 2001

CAM-I Beyond Budgeting Round Table

Preface

About the BBRT - The Beyond Budgeting Round Table (BBRT) was established in 1998 to investigate organisations that had replaced their traditional centralised "budgeting" management model with an alternative model. Our work is based on case studies. What we learned from them and other research is far more radical a change than we had imagined at the outset. The result of our work is the "BBRT Model" - a model based on *radical* devolution and an *adaptive* way of managing. The purpose of this exploratory survey was to test whether companies that have moved towards the BBRT model gain competitive advantage by doing so.

The BBRT is both a research project and an active network of companies who are sponsoring the continuing research and sharing experience as they move through various stages towards implementing the BBRT model. The members of the BBRT since 1998 include the following organisations: -

ABB, ABC Technologies, Accenture, ACCO Europe, AC Nielsen, Alstom Energy, Anheuser Busch, Armstrong-Laing, Andersen, Ascom, Barclays Bank, Bass Brewers, BG Transco, Boots, BP/Burmah Castrol, BT Network Build, Cadbury Schweppes, Chartered Institute of Management Accountants, De Beers, DHL, Diageo – UDV, eNiklas, Ernst & Young, European Bank (EBRD), Halifax, Hammond Suddards, Housing Associations, Interbrew, Kingfisher, KPMG Consulting, HP Bulmer, Mars, National Power, Navigant Consulting, Novartis, Parker Hannifin, Pentland Group, Port of Tyne Authority, PricewaterhouseCoopers, ProDaCapo, Royal Mail, Rugby Group, Sainsburys, Schneider Electric, Siemens, Sight Savers International, SKF, Southco, Standard Life, TNT, Texas Instruments, Thames Water, UBS, United Engineering Forgings, Valmet Corporation, Unilever/Van den Bergh Foods, West Bromwich Building Soc, Whitbread.

The BBRT's academic advisers are Professor Michael Bromwich, London School of Economics, Professor Michel Lebas, Groupe HEC, Paris, and Professor David Otley, Lancaster Business School. The research leaders are Jeremy Hope and Robin Fraser.

How to contact us - The BBRT is a program under CAM-I, the Consortium for Advanced Manufacturing - International, which is an international not-for-profit collaborative research organisation. You can learn more about us at www.bbrt.org and www.cam-i.org, or contact us through Bob Tibor, President, at CAM-I Inc., 3301 Airport Freeway, Suite 324, Bedford, Texas 76021, USA, Tel: +1 817 860 1654, email: rjtibor@worldnet.att.net, or Dr Peter Bunce, BBRT Program Director in Europe on Tel: +44 1202 670 717, or email: peter@cam-i.demon.co.uk, or John Bragg, BBRT Program Director in Australia on Tel: +61 2 9241 3516, or email: triserv@bigpond.com, or Steve Player, BBRT Program Director in North America, on Tel: +1 214 306 2883, or email: RSPlayer1@aol.com.

The survey - This "Beyond Budgeting" survey was conducted by the BBRT research leaders. The survey data was processed and analysed by people who were at that time employed by Andersen in The Netherlands: André de Waal (partner), Henk van den Wallen (manager), and Igor Küttschreutter (trainee). André de Waal, who is now a partner in the Holland Consulting Group and represents the BBRT in The Netherlands, can be contacted on Tel: +31 20 57 33 410 or via the websites: http://home01.wxs.nl/~anwaal or www.hcg.net.

BBRT Benchmarking Project

Report on an exploratory "beyond budgeting" survey

CONTENTS

1.   Executive summary

This report explains briefly what the "BBRT" management model is, and gives the results of an exploratory survey to test whether the model helps organisations achieve superior performance.

1.1.   The case for change

The BBRT model is the construction of the CAM-I Beyond Budgeting Round Table, and is based on case studies and other research into companies working without budgets. Most of the cases had adopted a *devolved* organisation, and *adaptive* management processes. Such changes should give companies competitive advantage, and in the most prominent BBRT cases (e.g. Handelsbanken, AES, Ahlsell and Leyland) this is demonstrably true. Handelsbanken, for example, is the most cost-effective large universal bank in Europe, if not the world, and has demonstrated the sustainability of its devolved, adaptive, "budgetless" model for over 30 years.

In the information economy speed and adaptability are critical success factors, as are keeping talented managers, continuous innovation, operational excellence, customer intimacy and sustaining value creation. Yet most companies use a management model inherited from the industrial age with structures and processes that act as barriers to these critical success factors. While "operational excellence" is a strategy that many have adopted with success, it will no longer be a sufficient strategic position in the information age. Only organisations, including public sector and not-for-profits, that pursue continuous innovation or customer intimacy strategies will prosper, and these clearly need to devolve authority and adopt adaptive processes.

1.2.   The survey

We conducted the survey to explore whether companies that had adopted the features of the BBRT model to any degree were indeed gaining competitive advantage. The survey data was submitted by some 250 delegates at "beyond budgeting" courses and conferences presented by one of the BBRT research leaders in Australia, Denmark, UK and USA between March and September 2000, and the data was analysed by Andersen. The survey results show a statistically significant positive correlation between companies that have moved their management models towards the BBRT model and superior competitive performance. This effect was most marked in service organisations and large companies. We do not claim that the survey was conducted with full academic rigour. It was based on an evolving version of the BBRT model, and a population of companies whose managers had self-selected to attend the courses or conferences. Also, except in Denmark, the proportion of companies with management models close to the BBRT model was quite low. Nevertheless, the indicative results do confirm what we had already observed in our case studies. The BBRT will be considering what research it should conduct now to further evaluate the relationship between competitive performance and the BBRT model.

1.3.   The BBRT benchmarking project

Since completing this survey, we have developed the "BBRT Benchmarking Project" principally to help individual companies determine if they have a case for changing their models, and understand what changes are needed in some detail. It uses a web-based questionnaire and can produce a range of diagnostic and survey reports. We encourage you to participate in it by going to www.project.bbrt.org where you can learn more about it, and complete the questionnaire.

2.   The case for change

2.1   The traditional management model

The traditional performance management model was first developed in the 1920's to help financial managers control costs in such large organizations as DuPont, General Motors, ICI and Siemens. For the next 30-40 years it did the job reasonably well, because it was designed with a 'producer-led' approach to business in mind. The multidivisional organisation (or "M-form") coped with increasing complexity by placing the activities of each distinct product line, region, or technology into separately managed compartments (e.g. a business unit or division) and subjecting all these compartments to the financial discipline of a strong corporate staff. The underlying thread was *control*. The mission statement agreed by senior executives was translated into the strategic plan by the planners and handed down the hierarchy to operational managers who prepared their plans and budgets. Once these were agreed, all that was demanded was adherence to the plan. Head office did not like surprises. Control reports were constantly fed back up the line and, should they show that performance was veering off-track, new directives would be issued.

2.2   The changing business environment

The traditional model worked well when market conditions were stable, competitors were known and their actions predictable, relatively few people took decisions, prices reflected internal costs, strategy and product lifecycles were lengthy, customers had limited choice, and the priority of shareholders was good stewardship. But these conditions no longer apply. Today's competitive climate is far more uncertain, many people (particularly those close to customers) must take decisions, the pace of innovation is increasing, costs reflect market pressures, customers are fickle, and shareholders more demanding. To compete more effectively in the information economy, firms need to: -

- respond more quickly to threats and opportunities and to changing customer needs
- attract and retain the best people capable of taking responsibility for decisions and accepting accountability for results within their competitive domain
- continuously provide innovative solutions and generate new business concepts
- operate with lower costs, higher quality, and greater efficiency
- improve their knowledge of customer needs and focus on improving customer profitability
- provide sustainable competitive performance for their shareholders.

To achieve these aims means that firms must become more adaptive and responsive, which means devolving authority and accountability to people closer to the customer. Firms must break free from the incremental planning and budgeting mentality and involve all their people in building a new platform for sustainable improvement.

2.3   The barriers to change

While most senior executives want their organisations to be more adaptable (and thus more devolved), few know how to turn management rhetoric into operating reality. While they talk

about fast response, empowerment, innovation, operational excellence, customer focus, and shareholder value, their management processes (e.g. agreeing targets, making plans, defining measures, and setting rewards) all too often remain stuck in a time-warp of command and control, supporting centralised, rather than devolved management. Fixed strategies prevent fast response; rigid organisation structures switch-off managers who seek challenge and development; bureaucracies stifle innovation; entrenched functions undermine cross-functional processes; an emphasis on product targets works against customer loyalty programs; and short-term performance contracts fail to support long-term value creation. Nor do the millions spent every year on reengineering, team-building, enterprise-wide systems, customer relationship management, value-based management and balanced scorecards seem to overcome these problems. In fact, the vast majority of these initiatives fail for exactly the same reason – they support the rhetoric but get slaughtered by the reality as they invariably collide with the immovable forces of the short-term planning and budgeting system.

2.4   The barrier breakers

Not content with trying to improve an outdated model, a number of companies have now broken through the barriers in the traditional model of centralised decision-making and fixed performance contracts, though some are further down the path than others. Of the barrier breakers we have identified, fifteen or more have so far been the subject of visits and case studies by BBRT. Six stand out. These are: -

- **Svenska Handelsbanken** - A leading Swedish bank with a full range of services, since abandoning its centralised model in the 1970s, has outperformed its Nordic rivals on just about every measure you can think of including return-on-equity, total shareholder return, earnings-per-share, cost-to-income ratio, and customer satisfaction. And it is has done this consistently, year-in, year-out, for the past 30 years – a testament to the smooth performance sustainability of its radically devolved model. It is the most cost efficient bank in Europe and has recently been voted one of Europe's best Internet banks.

- **Borealis A/S** – A Danish company that is at the leading edge of polymer research and development and is one of Europe's largest producers (sales of $2.5bn). The petrochemicals industry is notoriously cyclical with financial success largely dependent on oil prices. Since it implemented its devolved model and abandoned budgeting in 1995, Borealis has met its ambitious return-on-capital targets and reduced costs by 30% in 5 years.

- **Ahlsell** - A Swedish wholesaler distributing a complete range of heating and plumbing, electrical, tools, DIY and refrigeration products for installation contractors, municipalities and retailers. Since implementing its devolved management model in 1995, it is now the sector's most profitable company in heating and plumbing, and the second most profitable in electrical – a major turnaround from its position in the early 1990s.

- **Bulmers** - A British company with a clear leadership position (60% share) in the UK cider market. Following the adoption of a more devolved management approach in 1998, the company introduced adaptive management processes in late 1999 in preparation for fiscal year 2000/1. Early results have been impressive. The firm is growing revenue and profitability at a much higher rate than the industry average and

there have been significant cost savings. In 2001 the company was ranked as one of the best firms to work for in Britain.

- **Carnaud** - An French packaging company that became one of Europe's most spectacular turnarounds of the 1980s. By abandoning its centralized model, adopting ambitious competitive targets and a supporting rewards system, they created a federation of entrepreneurs who strived to multiply sales, profits and productivity as fast as they could. During the period from 1982 to 1989 Carnaud achieved compound return on equity of 26% p.a. combined with outstanding revenue growth, until its ownership changed

- **The AES Corporation** - A USA based global power company that places its values and principles above anything else, and has adopted a highly devolved management model became one of America's "wonder" stocks of the 1990s (total shareholder return was top of the Fortune rankings in the Utility sector for 1999 and its price-to-book ratio is the second highest).

Other cases that have adopted some or all of the elements of what we call the "BBRT model" include Swedish roller bearings company, **SKF**; UK retailer, **Boots**; Swedish car maker, **Volvo**; US telecommunications company, **Sprint**; U.S. eye care company, **Ciba Vision**; and UK charity, **Sight Savers International**. A number of other firms have made real progress towards the model. **Toyota** and **Scania**, for example, have de-emphasised financial targets for decades and empowered people to focus on improving the design of work to build organisations that improve continuously. Both companies have uninterrupted profit records going back forty years. **General Electric** and **BP-Amoco** have adopted most of the BBRT philosophy and empowered front line managers to make strategic decisions within clear values and boundaries.

2.5   The BBRT model

The BBRT model was constructed, based on these and other cases. It is designed to overcome the barriers of centralised management and create a flexible and adaptable organisation that gives local managers the self-confidence and freedom to think differently, to take fast decisions, and to feel comfortable about engaging in innovative projects with colleagues in multi-functional teams both across the company and outside the firm. Implementing the BBRT model, however, is not a simple matter of introducing new performance management processes. It also involves radical devolution of decision-making power. In this survey, we based our questions around ten principles. Principles 1 to 4 are concerned with *devolution* and principles 5 to 10 are concerned with *adaptive* management processes. These are the ten principles: -

Devolutionary framework

1. **Organisation** – Organise around a network of interdependent customer-oriented units, *not a hierarchy of functions and departments*

2. **Freedom to act –** Give people the freedom to act within strategic goals and boundaries, *don't control and constrain them with fixed plans and budgets*

3. **Capability to act** – Equip people to act as autonomous decision makers, *not just as implementers of approved plans*

4. **Coordination -** Coordinate cross-company interactions through "market-like" forces, *not through central planning, budgeting and control*

<u>Management processes</u>

5. **Goal setting –** Beat external competitive performance benchmarks, *not just internal negotiated targets and budgets*

6. **Strategy process -** Make strategy a continuous and inclusive process, *not a top-down annual event*

7. **Anticipatory systems -** Use anticipatory systems to inform strategic decision making, *not just to make short-term corrections to 'keep on track'*

8. **Resource utilisation –** Make resources available when required, *don't allocate them on the basis of annual budgets*

9. **Measurement and control –** Provide fast, open information for multi-level control, *not detail for micro-management*

10. **Motivation and rewards -** Base rewards on company and unit-level relative competitive performance, *not fixed targets negotiated in advance.*

These principles are explained more fully in the tables in Appendix B, and an example of the questionnaires used in the survey is given at Appendix C. A key element in the BBRT model is that goals, plans, resources, measures, and rewards are "disconnected", that is, not tied together in a fixed 'performance contract'.

2.6   Applicability of the BBRT model

Does the BBRT model apply only to certain types of organisation? The BBRT believes not. Defenders of the traditional management model point to organisations that pursue 'operational excellence' strategies (they perform the same activities as their rivals, only better), which typically have a preponderance of low skilled workers engaged in repeatable, high-volume activities. These 'make-and-sell' organisations, they claim, still exist. But this position can be challenged. Strategy authority and Harvard professor Michael Porter has stated recently that operational excellence is no longer a sufficient strategic position in the information age. It is an essential element of every company's operating capabilities, just like total quality. This means that only companies that pursue continuous innovation or customer intimacy strategies will prosper in the twenty-first century and these are the organisations that urgently need to devolve authority and adopt adaptive management processes. Even public sector and not-for-profit organisations should be able to derive significant benefits from the BBRT approach.

2.7   Devolution and competitive advantage

"We have known for nearly half a century that self-managed teams are far more productive than any other form of organizing ... in fact, productivity gains in truly self-managed work environments are at minimum 35 percent higher than in traditionally managed organizations. And in all forms of institutions, Americans are asking for more local autonomy ... With so much evidence supporting participation, why isn't everyone working in a self-managed environment right now?" writes Margaret Wheatley, author of "Leadership and The New Sciences" and "Goodbye Command and Control".

In the BBRT we have seen much evidence that the best opportunity for improving company performance is through creating a more devolved organisation. Abandoning performance contracts (e.g. budgets), and introducing more adaptive management processes are requirements for companies that wish to devolve responsibility, but they are not an end in themselves. In several of the cases that we cite above this is demonstrably true. Leyland Trucks, a recent BBRT case, has shown over the past 8-10 years that the whole justification for their "Team Enterprise" approach is that *"it's the safest, quickest and most cost-effective means of improving your bottom line, long-term and permanently"*.

Returning to the Handelsbanken case, how else can we explain their extraordinary performance (see Chart 1 below) relative to the 30 largest listed universal banks in Europe? We know that uniquely among them Handelsbanken manages with a devolved and adaptive management model. The bank abandoned central planning and budgeting in 1970 because they saw them as being incompatible with devolution. The chart, which was prepared in March 2001, compares the banks on two key ratios: Expenses to total assets, and costs to income. Handelsbanken's performance is markedly better than the other banks on both ratios.

Chart 1: Comparison of Handelsbanken's performance with other European banks
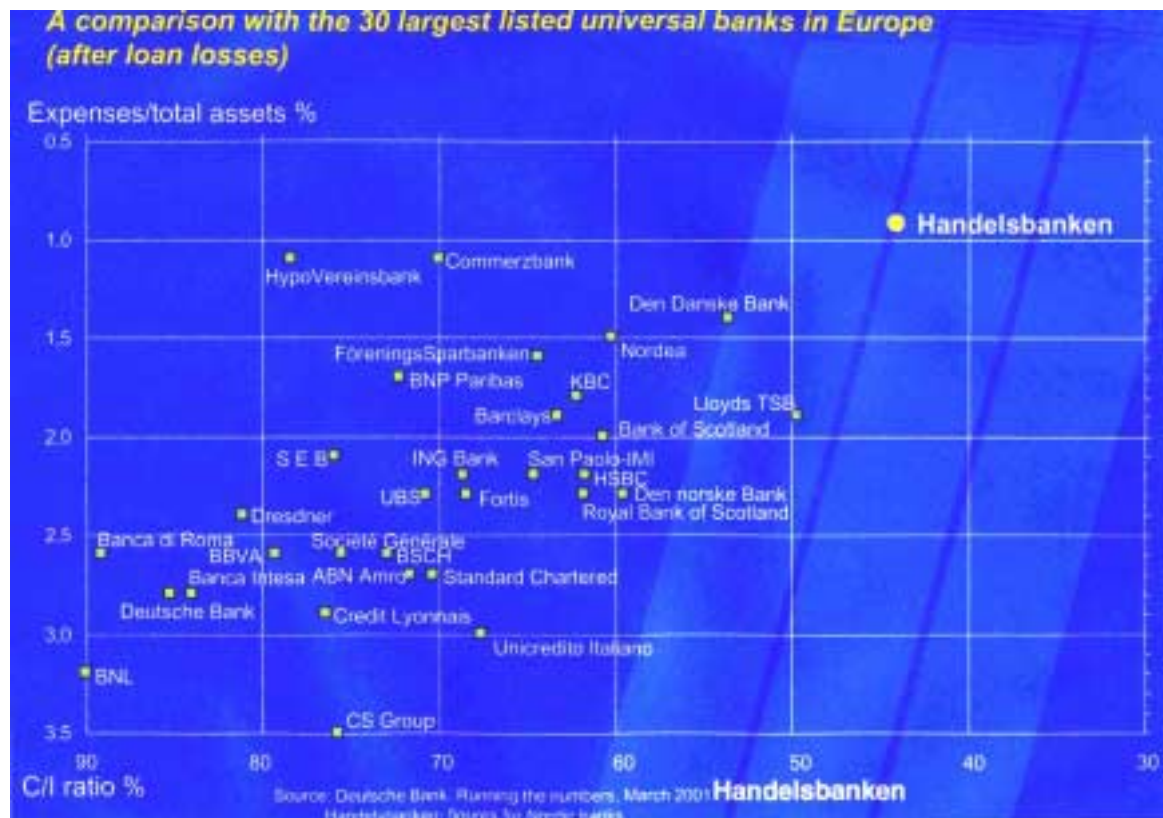
3.   The survey

3.1   Aims and methodology

The aim of this exploratory survey was to find out whether the competitive performance of companies is a function of (a) their business environment, (b) their progress towards adopting the BBRT management model, and (c) their size (measured as the number of employees in their parent group). Our key question was whether or not the adoption of the BBRT model has a positive effect on the (financial) performance of organisations.

The survey was conducted between March and September 2000. The total survey population was 217 different companies (after averaging responses from people in the same company). The respondents worked in companies in Australia, Denmark, United Kingdom, and United States of America. However, we could not use the full number of responses in all the analyses because a number of companies had not answered all the questions, particularly the question relating to their competitive performance. The data was collected during "beyond budgeting" courses and conferences, at which the survey was conducted. Finance managers representing their companies completed the questionnaires after first hearing a presentation by a research leader from the CAM-I BBRT. Taking the past 2 years as a point of reference, these managers were asked to score their company on:

- A.   The business environment in which their companies were operating;
- B.   The extent to which their companies had adopted the 10 Beyond Budgeting principles;
- C.   The size of their company and parent group against ranges of numbers of employees;
- D.   Their performance, measured as return on equity, compared with major competitors.

Table 1: The variables scored and analysed in the survey

Variables	The scales against which the variables were scored		
	1	Scale	10
A. Business environment	Supplier-led, predictable, slow	1 - 10	Market-led, turbulent, fast
B. Management model	Overall model = Average of the scores of B1 to B10 on a scale of 1-10		
B1. Organisation	Centralised functional hierarchy	1 - 10	Devolved market-like network
B2. Freedom to act	Within budgetary controls	1 - 10	Within strategic boundaries
B3. Capability to act	Implement approved plans	1 - 10	Make autonomous decisions
B4. Co-ordination	Through plans and budgets	1 - 10	Through market forces
B5. Goal setting	Negotiated and incremental	1 - 10	Relative to competitors
B6. Strategic process	Annual and top-down	1 - 10	Continuous and inclusive
B7. Forecasting	Used to "keep on track"	1 - 10	Used to inform strategy
B8. Resource utilisation	Allocated annually	1 - 10	Available when required
B9. Measurement & control	Compliance with plan	1 - 10	Self-regulation
B10. Motivation & rewards	Individual, fixed incentives	1 - 10	Group-wide, relative rewards
C. Firm size	Log of number of employees at group level		
D. Competitive performance	A company's ROE compared with major competitors over the past 2 years		

The managers scored their company on a scale of 1 to 10 for each of the variables shown in Table 1 above. A score of 1 meant that their model was exactly similar to the traditional model, a score of 10 meant it was exactly similar to the BBRT model, and a score in the range 2 to 9 meant it was somewhere between the two models. To help the managers assess their models, the course papers, which they used, included tables like those given at Appendix B.

The distribution of the scores was measured using seven "positional" measures to show the range of results. To determine these, the data was (in effect) ranked in a list in order of magnitude. The maximum and minimum results are the extreme values. The upper and lower deciles are 10% from the top and bottom of the list, and the quartiles are 25% from the top and bottom of the list, while the median is the middle value. The overall distribution of the scores in the total survey population is depicted in a "spider" or "radar" chart, which together with detailed results for each of the ten BBRT principles is shown in Appendix B.

The data was then further analysed in two successive steps: (1) Pair-wise relationships were analysed with correlation coefficients, and (2) A multivariate analysis was used to test one or more hypotheses simultaneously. These statistical techniques are explained at Appendix A. The total sample was divided into subsets by country, industry and firm size. The data analysis was then carried out on the total sample and on the subsets.

In order to generate a single score on the character of a company's management model, we averaged the scores on the 10 BBRT principles for each responding company. In statistical terms we call this variable, representing the overall management model, a 'vector variable'. It gave us an overall measure of the character of a company's management model.

For firm size we used the number of employees at the parent group (rather than company) level because we assumed that the companies' management models would be influenced at least as much by group policy as by local considerations.

For the question on competitive performance we generated a score on a company's Return-on-Equity performance relative to its competitors. We used an answer format resulting in scores from 1 to 5:

> *Please, indicate your company's performance on return on equity compared with your major competitors, taking the past 2 years as a point of reference:*

1. *At the <u>bottom</u> of the league*
2. *Somewhat <u>less than average</u>*
3. *Close to <u>average</u>*
4. *Somewhat <u>better than average</u>*
5. *At the <u>top</u> of the league*

There were a number of minor variations in the ways we conducted the surveys on the different courses and conferences, because we were developing the methodology, but we brought all the data in the survey onto a mutually comparable basis for the analysis.

3.2   Results

The central hypothesis of our research is that companies, which move their management models in the direction of the BBRT model, will achieve better competitive performance. Such companies *radically devolve* decision-making (i.e. they are "decentralised") and tend to manage performance using *adaptive processes* (reflecting market changes, rather than working to a fixed plan). With the BBRT model, responding to market opportunities and threats becomes easier and quicker, which ultimately results in better financial results.

Next to testing this central hypothesis, we were interested in whether:

- Firm size was related to competitive performance;
- A company's business environment was related to competitive performance;
- A company's business environment influenced its overall management model;
- Firm size, industry and country influenced the overall management model.

We expected the analysis to show that the larger companies perform better, because they are likely to have a more dominant market position and the advantages of economies of scale. We did not expect business environment to be related to competitive performance, but we thought it would be related with the management model, because a company's strategy should reflect its business environment, and in turn its management model should be designed to support its strategy. Finally, we were interested to learn how size, industry and country might influence the management model.

Competitive performance is defined as a variable that is influenced by a company's business environment, management model and size. In this definition, a company's management model was measured by taking the average of its scores against the ten BBRT principles.

*Competitive Performance = **A FUNCTION OF:** (Business environment, Management model, and Firm size) **IN WHICH** Management model = **AVERAGE OF:** (Organisation, Freedom to act, Capability to act, Co-ordination, Goal setting, Strategic process, Resource utilisation, Forecasting, Measurement & control, and Motivation & rewards.)*

Correlations for the total sample

In this section we give the results for the total sample. Table 2 gives the correlations between the four major research variables: business environment, management model, firm size and competitive performance. The number of responses analysed were in the range from 168 to 217, because some delegates had been unable to respond to all of the questions. Significant correlations are shown in **bold**.

Table 2: Correlations between research variables, total sample

Research variables	Business environment	Management model	Firm size	Competitive performance
Business environment	1 (n=217)			
Management model	0.03	1 (n=217)		
Firm size	0.10	-0.24**	1 (n=201)	
Competitive performance	0.00	0.19*	0.20*	1 (n=168)

** Correlation is significant with 95% reliability

* Correlation is significant with 90% reliability

Three significant pair-wise correlations were found. These are management model to firm size, management model to competitive performance, and firm size to competitive performance. We interpret the results as follows:

- **Management model –** The management model shows two statistically significant correlations. The first correlation is a significant *negative* correlation between **firm size** and management model (-0.24**). This result suggests that larger firms operate in a more traditional way than smaller firms: they have more hierarchical organisational and management structures and less adaptive management processes. In the literature smaller firms are often credited with being more flexible and adaptive and having flatter structures, which improves the speed of decision-making and agility in the market. The results of this survey seem to support this. The second significant correlation is a positive one with **competitive performance** (0.19*). This result means that companies that have management models, which conform with some or all of the BBRT principles, perform better relative to their competitors than companies with more traditional management models. This supports our hypothesis.

- **Business environment** - The business environment does not show statistically significant correlations with any of the other variables measured in the overall sample. This indicates that the business environment in which an organisation operates makes no difference in its ability to either gain competitive advantage or to change its management model. This result in itself was to be expected: the business environment constitutes a 'level playfield' for all organisations in that environment. One would expect, however, that it might make a difference for growing the size of the firm. Some business environments are probably better suited than others for firms to grow to larger organisations.

- **Firm size –** The firm size and competitive performance show a positive statistically significant correlation (0.20*). This result suggests that larger firms achieve better financial performance relative to their competitors than smaller organisations. This result was not unexpected because larger firms will generally have greater market domination and better economies of scale, thereby being able to become more profitable than smaller firms in the same industry. It is interesting to compare this positive correlation with the negative correlation between firm size and management model. These results seem to indicate that despite an unfavourable management model with less flexible management processes larger firms are still able to gain competitive advantage. This would suggest two things: (1) a company should strive to

become big; and (2) if a large company adopts the BBRT principles it could become even more competitive (and profitable).

There is one further general result that we think is an important pointer to understanding why the BBRT model leads to superior competitive performance. This concerns the different principles within the model. We had noted (see Table 3 below) that the correlation of competitive performance with the management model was strongest in the sample of Danish companies. We therefore analysed this sample further to test correlation with the BBRT principles. We found that the correlation of competitive performance with the set of four devolution principles was greater (0.36**) than with the set of adaptive process principles (0.27*). This supports the indicative evidence outlined in Section 2.7 above, and our hypothesis that *devolution* is the major source of competitive advantage in the BBRT model, more so than from merely abandoning 'performance contracts' (e.g. budgets) and adopting more adaptive processes. In practice, of course, devolution and adaptive processes are closely related and have to be implemented together because devolution cannot be achieved without abandoning 'performance contracts'.

Correlations by country

In this section we give the results for the countries in the sample. Table 3 gives the correlations between each of the three research variables (business environment, management model, firm size) and competitive performance in the countries Australia, Denmark, and the UK. Significant correlations are shown in **bold**. The USA subset was too small to give meaningful results.

Table 3: Correlations between research variables, by country

Research variables	Competitive performance			
	Australia n = 40	Denmark n = 45	UK n = 27	USA Note 1
Business environment	-0.09	-0.01	0.07	
Management model	**0.48***	**0.51****	0.19	
Firm size	**0.55***	0.35	0.47	

** Correlation is significant with 95% reliability

* Correlation is significant with 90% reliability

Note 1: Sample too small.

We interpret the results as follows:

- **Business environment -** This variable shows no statistically significant correlation with competitive performance in any countries, as expected.

- **Management model -** This variable has positive statistically significant correlations in the two countries with the larger sample sizes. The strongest correlation was in Denmark (0.51**). This did not surprise us because we had found from the BBRT case studies that companies in the Scandinavian countries have generally made greater progress towards devolution and adaptive processes than in other countries. However, the results in Australia, where management models generally follow the Anglo-American model, also showed a significant correlation (0.48*), which suggests that it is likely that the BBRT model will also have positive effects in countries other than

Scandinavian ones.

- **Firm size -** This variable shows a statistically significant correlation for Australia (0.55*), but not for Denmark. An explanation could be that there were only a few *large* Danish companies in the total research sample, so there might not have been enough data to find a correlation.

Correlations by industry

In this section we give the results for the industries in the sample. Table 4 gives the correlations between each of the three research variables (business environment, management model, firm size) and competitive performance for the services and products industries. "Services" includes telecommunications, consultancy, banks, distribution and law firms. "Manufacturing" includes consumer products and electronics, and "Non-profit" includes government and education. The subset for non-profit organisations was too small to give meaningful results. Significant correlations are shown in **bold**.

Table 4: Correlations between research variables, by industry

Research variables	Competitive performance		
	Services n = 57	Manufacturing n = 62	Non-profit Note 1
Business environment	0.10	-0.19	
Management model	**0.43****	0.11	
Firm size	**0.50****	0.42	

** Correlation is significant with 95% reliability

* Correlation is significant with 90% reliability

Note 1: Sample too small.

We interpret the results as follows:

- **Business environment –** This variable shows no significant correlation with competitive performance in any industry, as expected.

- **Management model -** This variable has a positive statistically significant correlation for the services organisations (0.43**). It seems that moving towards the BBRT model is especially beneficial in the services industry. An explanation could be that the nature of services organisations already calls for a devolved structure, because these organisations employ professionals who require more 'freedom' and leeway, and that services organisations which have organised themselves according to these requirements indeed are performing better relative to their competitors. In contrast, the result for the manufacturing industry is that there is no significant correlation (0.11). This might suggest that, because the nature of the manufacturing process makes it more difficult, companies in this industry have made less progress towards the BBRT model, and those that have made progress may not yet have gained much benefit from it. However, readers should not draw the conclusion that the BBRT model is not applicable in manufacturing, because most manufacturing companies have sizeable service elements,

and some of the cases studied by the BBRT (e.g. AES and Leyland) show that devolution can give major benefits in "blue collar" areas, as well as in "white collar" areas.

- **Firm size –** This variable also has a positive statistically significant correlation for the services industry (0.50*). The services organisations represented in the research sample included larger companies, hence this result was to be expected.

Correlations by firm size

In this section we give the results for firm sizes in the sample. Table 5 gives the correlations between each of the three research variables (business environment, management model, firm size) and competitive performance for the size groupings chosen. The subset for organisations with fewer than 100 employees was too small to give meaningful results. Significant correlations are shown in **bold**.

Table 5: Correlations between research variables, by firm size

Research variables	Competitive performance				
	<100 Note 1	100-500 n = 27	500-1000 n = 18	1000-5000 n = 35	>5000 n = 33
Business environment		-0.20	0.06	**0.51***	**-0.50***
Management model		0.11	0.09	**0.44****	-0.02
Firm size		-0.63	-0.79	**0.52****	0.66

** Correlation is significant with 95% reliability

* Correlation is significant with 90% reliability

Note 1: Sample too small.

The results here are somewhat contradictory. This may in part be because we based firm size on the parent group size, rather than the local unit size. We interpret the results as follows:

- **Business environment –** This variable shows statistically significant correlations with competitive performance in the two largest size groups. The values have contradictory signs (0.51* and -0.50*), which is not a logical result. Further research is needed here.

- **Management model -** This variable has a positive statistically significant correlation for the second largest firm size group (0.44**). This means that the organisations in this size group that have moved towards the BBRT model are gaining competitive advantage from it. The results suggest that the very largest organisations have yet to do so.

- **Firm size –** This variable also has statistically significant correlation for the second largest firm size group (0.52**). This means that the larger the company gets in this size group, the better it will perform. Reasonably it could be expected that the next size group (> 5000) would also show a statistically significant correlation but it does not. Further research is needed here to find out why this is the case.

3.3 Conclusions

There are several limitations to this survey, which have to be taken into account when considering the results. Firstly, the research sample is not random. The respondents were all from companies which were interested in the "beyond budgeting" concept. Companies, which were not interested (including some who may already have adopted some of the BBRT principles), would not have signed up to attend the courses. Also, the companies were for the majority represented by financial managers, not operational managers, who in general can understand the mechanics of the beyond budgeting concept more easily. Whether these factors had any impact on the results is hard to assess. Secondly, the research sample was not very large. The number of organisations in the sample was too small to make significant analyses within more than a few subsets. Thirdly, the questionnaire was based on an immature and evolving BBRT model, and making judgements of progress between the traditional and BBRT models was rather subjective. Fourthly, we had based our hypothesis on case studies made by the BBRT in companies that were much further advanced towards the BBRT model than most of the companies in this survey. And finally, the sample sizes from different countries were proportionately too high in two countries (Denmark and Australia), too low in the other two (UK and USA), and would have benefited from the inclusion of other countries (e.g. Sweden, France, Germany, The Netherlands and Japan).

However, the indicative results of this exploratory survey do confirm our hypothesis that moving towards the BBRT model has a positive impact on competitive advantage. We expect that a more comprehensive survey would add further confirmation of this hypothesis and provide valuable further insights. The BBRT will be considering what research it should now conduct to take these issues forward and how it might best further evaluate the relationship between relative competitive performance and management models in the light of the experience gained in this study.

In the meantime, we have developed the "BBRT Benchmarking Project" principally to help individual companies determine if they have a case for changing their models, and understand what changes are needed in some detail. But the tool could also be used, perhaps with modification, for further research. It uses a web-based questionnaire and can produce a range of diagnostic and survey reports. We encourage you to participate by going to www.project.bbrt.org where you can learn more about it, and complete the questionnaire. We explain this more fully in Section 4 below.

If you were one of the companies that participated in the survey, we thank you for doing so, and apologise for the delay in sending you this report. We look forward to you and many other companies joining us in the BBRT Benchmarking Project.

4.   The BBRT benchmarking project

4.1.   Aims of the project

The primary aims of the BBRT benchmarking project are:

- **Fitness** – To test whether your company's management model has the characteristics needed for success in the information age.

- **Diagnostic** - To help you identify the changes needed to implement the model in your company, and any barriers to it.

- **Survey -** To provide further data that might be used for research purposes by the BBRT.

4.2.   Project architecture, stages and methodology

The logic of the BBRT benchmarking project (as illustrated in Chart 2 below) is to link: (1) the changing environment, (2) the factors required to succeed in that environment, (3) the devolutionary framework required to implement those success factors, (4) the management processes needed to execute them, (5) the barriers that need to be eradicated, and the tools that are needed to support a successful transition, and (6) the resultant competitive performance.

Chart 2: Project architecture chart
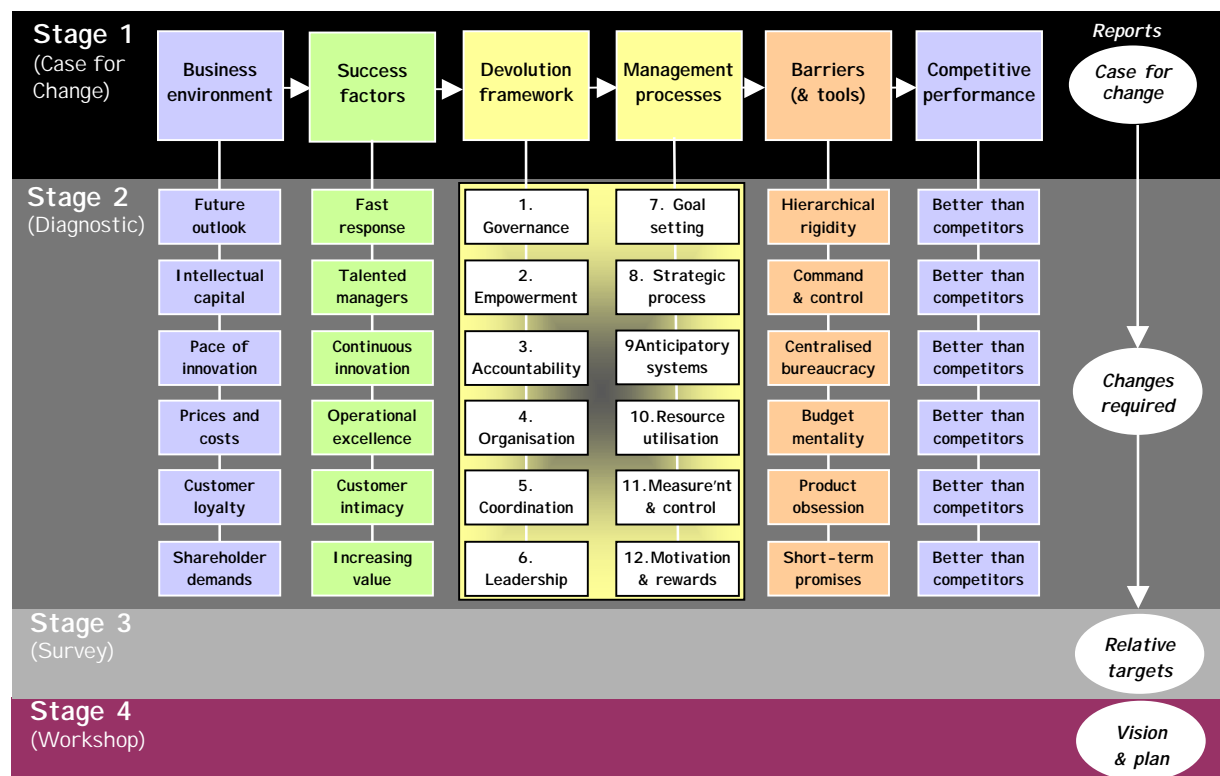
The project has four main stages, each of which should benefit your organisation: -

- **Stage 1: "Case for change" -** This stage will tell you if there is a case for changing your management model to support your strategy better. To participate go to www.project.bbrt.org to complete questionnaire Q1. This is a free service and will take you around 30-40 minutes, but you can stop at any time and return later without losing your data. After completing Q1, we will immediately email you a 20-page *case for change* report. While this report is only intended to provide an overview, it will show you the main problem areas and the extent of the changes required to improve your management model. After reviewing the results you can edit your data and receive a revised report, and you can do this as many times as you want.

- **Stage 2: "Diagnostic" -** This stage will help you understand in some detail the changes you need to make if you want to adopt the BBRT management model. To participate you go again to the questionnaires on the project website. To gain access to Q2 you have to pay a fee, which entitles you to receive both the *diagnostic* (Stage 2) and *survey* (Stage 3) reports. Q2 will take around 45-60 minutes to complete, but again you can stop at any time and return later without losing your data. Q2 expands on the 12 principles of the model (to 48 sub-principles) and includes more questions about barriers, and many questions on how, if you do, you use six recognised systems, tools and techniques to see whether they support or conflict with your model. The six recognised tools covered in the diagnostic and survey are (1) Management Information Systems, (2) Balanced Scorecard, (3) Economic Value Added (EVA), (4) Activity Based Management (ABM), (5) Rolling Forecasts, and (6) Benchmarking.

- **Stage 3: "Survey" -** This stage will show you how your current management practices and aspirations compare with those of other companies in the survey, and subsets of them (e.g. your industry, region and size groups). After editing and validating the data in Q2, you receive a comprehensive 100-page *survey* report, which presents all the results of the benchmarking project together.

- **Stage 4: "Workshop" –** We can support an in-house survey (from a few key managers to a hundred or more people). A fee may be charged depending on scope and tailoring requirements. This stage will help you "sell-in" and develop the ideas in your company. At any time after completing Q1, you can run a workshop with a mix of your people and a qualified facilitator to help you interpret the results, build a vision for your management model, consider alternatives, decide priorities, and plan the next steps. Contact Dr. Peter Bunce in CAM-I at peter@cam-I.demon.co.uk if you want to receive a special *workshop* report that compares the views of different people in your company or group. It helps trigger discussion in a workshop and to bring views together and build a consensus on the way forward.

Preparing questionnaires that attempt to measure the strengths and weaknesses of a company's management model is, to say the least, fraught with problems. The issue of leading the respondent to agree with the researchers view is perhaps the major one. Rather than just ask a list of questions that give you little clue about the 'model answer', we have opted for a design that sets out two extreme positions broadly reflecting 'best practice' between 'industrial age' (we call this Statement "A") and 'information age' (Statement "B") management models. While the 'industrial age' model is well understood, the 'information age' model is our construction and is the result of several years' research by the BBRT into companies that have adopted new management practices and have subsequently made significant and sustained performance

improvements. The 'information age' management model is what we call the 'BBRT model'. Most of the questions ask you to position your business along a continuum between the two statements of practice. We accept that few companies conform exactly to these polarised positions. Most are somewhere between the two.

What we ask you to do is to accept the "spirit" of the contrasts and honestly position where your company stands between them. If you don't accept that statement "B" is where you think your company should be in the future, then you have the opportunity to make this clear in your scoring for "future position".

4.3.   Reports you can receive

The results in the reports build up cumulatively. The *Survey* report (Stage 3) is the most comprehensive. It includes all the results from Stages 1, 2 and 3, while the *Diagnostic* report (Stage 2) includes all the results from Stages 1 and 2. All the reports have a similar structure. The executive summary gives the main results, and the more detailed results are given in appendices. The numbers of the questions and their order in the report correspond to those in the actual questionnaire.

- **R1: "Case for change" report -** This 20-page report sets out your *case for change.* The report shows your company's practices TODAY and those that you want to adopt in the FUTURE. The gaps between these two positions are highlighted on spider diagrams. The wider the gap the stronger the case for change.

- **R2: "Diagnostic" report -** This 60-page report sets out in some detail the changes you need to make. A unique feature in this report is that you can see how your management practices relate to your success factors (e.g. fast response, innovation), as well as to each of the principles of the management model (e.g. governance, rewards). This will help you to reshape your model to support your strategy better.

- **R3: "Survey" report -** This comprehensive, 100-page, final report shows how your company compares with the other companies in the survey, and subsets of them (e.g. your industry, region and size groups). It also draws conclusions from correlations among the various results, and gives valuable insights about the use of systems, tools and techniques (e.g. Balanced Scorecard), and identifies barriers to the model.

- **R4: "Workshop" report -** This 35-page report is based on the same information as R1, but it also compares your views with those of different managers within your company, or different companies or business units within your group, to help you review your management models. The reports can also be produced for a public course or conference to compare the views of delegates from different companies.

As mentioned in Section 3 of the report, the data was analysed in two successive steps: (1) pairwise relationships were analysed with correlation coefficients, and (2) a multivariate analysis was used to test one or more hypotheses. These statistical techniques are briefly explained in this appendix.

Pairwise relations measured by correlation-coefficients

We searched for significant correlations by generating Pearson correlation coefficients. A correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient range from –1 to +1. The sign of the coefficient indicates the direction of the relationship. Its absolute value indicates the strength, with larger absolute values indicating stronger relationships. A statistically significant correlation between two variables means that in case we would do another random check of the same size, we expect to find correlation between these two variables again, with a probability for disturbance of less than 10%. This means that we are satisfied with a reliability of 90% and that we allow a chance of 10% for being wrong about the existence of a significant correlation. Significant correlations with a reliability of at least 90% are printed in bold font style. It is important to realise that correlations that are not printed bold, are not as statistically significant and can therefore not be relied on to draw conclusions.

Multivariate analysis

A multivariate data analysis technique is used for testing one or more hypotheses. More than two variables from the questionnaire are simultaneously run in one model. Multivariate analysis constitutes an analysis of multiple variables in a single relationship or in a set of relationships. This method makes it possible to ask specific and precise questions of considerable complexity. This in turn makes it possible to evaluate the effects of naturally occurring parametric variations in the context in which they normally occur. In this way, the natural correlations among multiple influences on behaviour can be preserved, and separate effects of these influences can be studied statistically without causing a typical isolation of either individuals or variables.

As just one example, businesspeople in most markets today must develop strategies to appeal to numerous segments of customers with varied demographic and psychographic characteristics, in a marketplace with multiple constraints (legal, economic, competitive, technological, etc.) It is only through multivariate techniques that multiple relationships of this type can be adequately examined to obtain a more complete and realistic understanding for decision-making.

Survey data on 10 BBRT principles

The data collected on the 10 BBRT principles used in this survey are set out in this appendix. They are based on the questionnaires that were completed by the respondents, an example of one of which is given at Appendix C. Under each principle, Statement A corresponds to the "Industrial Age" management model and Statement B to the "Information Age" (or "BBRT") model. The respondents assessed their company's model as between Statements A and B, on a score of 1 to 10, where 1 corresponded to Statement A and 10 to Statement B. In our analysis the data collected was ranked in order of magnitude of the scores. In the tables we show the ranges of the scores in the data using seven positional measures: The minimum score, lower decile (10%), lower quartile (25%), median (50%), upper quartile (75%), upper decile (90%), and the maximum score. Appendix B is set out in three sections: In the table at the top of the page we give the descriptions of Statements A and B. In the middle of the page we show the distribution of scores using a bar chart. And, in the table at the bottom of the page we show the distribution of scores in the total population and subsets of it by country, industry and size.

Overall distribution of results

The distribution of the scores on each of the ten BBRT principles for the total survey population is shown in Chart 1 below. There was a rather wide range of scores, but it can be seen that the majority of companies were closer to the "industrial age", rather than the "BBRT" model. The medians (i.e. half the data) were scores of 4 or less. The extreme values are not shown in this chart.

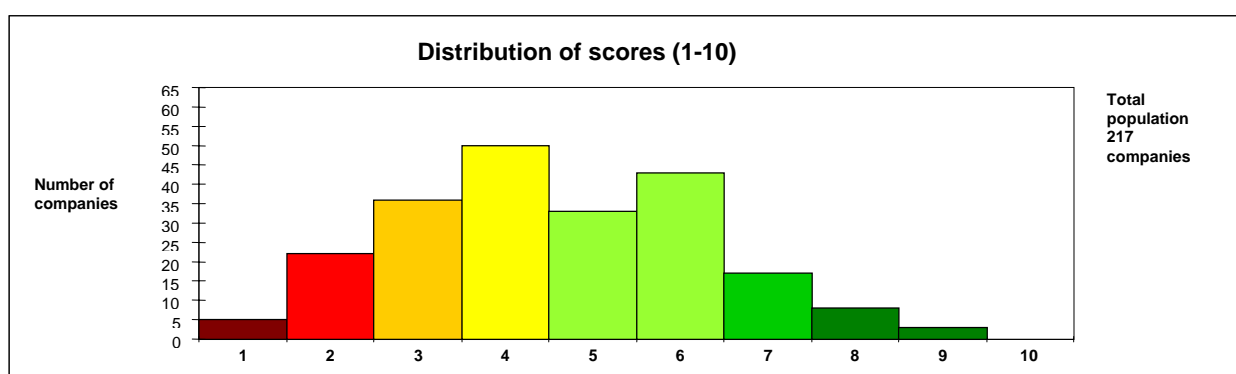**Chart 1: Distribution of scores for 10 BBRT principles**
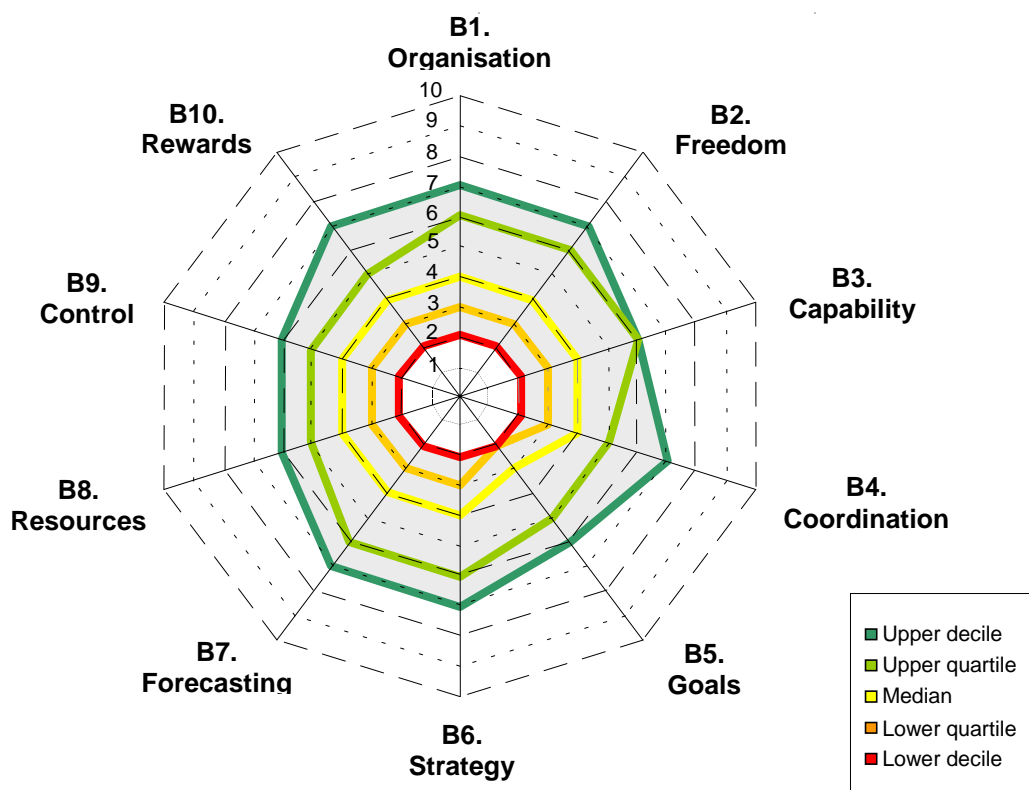
Principle 1 – Organisation

This principle contrasts the organisational form and extent of devolution in the 'industrial age' management model with those in the 'information age' model.

Statement A	Statement B
Centralised functional hierarchy (1)	**Devolved market-like network** (10)
Predominant form – *Hierarchy.* Designed from inside out. Few units. Facing the hierarchy. Boundaries are functional and geared to financial targets.	**Predominant form** – *Network.* Designed from outside in. Many units. Market (or internal customer) facing. Boundaries are strategic and geared to delivering value to customers.
Delegation – Limited. Centralised decision-making. Authority only delegated to lower levels within strict rules of control. Many management layers.	**Delegation – Extensive.** Authority is devolved to managers who have autonomy to "run their own business". Few management layers. Hierarchy used for cross border decisions.
Unit size – Large. Larger units lead to greater scale and lower unit costs.	**Unit size – Small.** Smaller units lead to greater flexibility, simplicity & lower total costs.
Performance focus – Product. Profit and cost centres define production-oriented performance responsibilities.	**Performance focus – Customer.** Value creation centres define customer-oriented performance responsibilities.
Control – Centralised. Variance analysis aims to keep Corporate Centre and senior line managers in control.	**Control – Distributed.** Rolling forecasts and strategic indicators aim to facilitate learning at local level.

Distribution of scores (1-10)

Total population 217 companies

	No.	Min	L.D.	L.Q.	Median	U.Q.	UD	Max
		Scores on scale (1-10)						
Total population *(see chart)*	217	1	2	3	4	6	7	9
Subgroups by country								
Australia	77	2	3	3	4	5	6	8
Denmark	64	2	3	4	5	6	7	9
UK	57	2	3	4	4	5	5	6
USA	19	2	2	3	4	5	6	7
Subgroups by industry								
Services	104	1	2	4	5	6	7	9
Production	93	2	2	4	5	5	6	7
Non-profit	20	2	2	3	4	5	6	7
Subgroups by size								
Less than 100 employees	25	2	2	3	5	8	8	8
100 - 500 employees	36	2	2	4	5	6	7	8
500-1000 employees	33	2	2	3	4	5	6	7
1000-5000 employees	67	1	3	3	4	5	6	9
Over 5000 employees	56	2	2	3	4	5	6	7

Principle 2 – Freedom to act

This principle contrasts the degree of freedom to act of managers in the 'industrial age' management model with that in the 'information age' model.

Statement A	Statement B
Within Budgetary controls (1)	**Within strategic boundaries** (10)
Compliance – *With rules & procedures.* Local managers must comply with operating rules and procedures.	**Compliance-*With shared values.*** Local managers operate within agreed values and strategic boundaries.
Strategy formation – *At the top.* Strategies are developed periodically and handed down like tablets of stone. Plans are approved before implementation.	**Strategy formation – *Locally.*** Strategies are the responsibility of the local team and may be developed continuously as opportunities arise or conditions change.
Scope of action – *Limited.* Local managers are accountable for implementing approved plans and meeting short-term financial targets (often under contract).	**Scope of action – *Extensive.*** Local managers are accountable for meeting high level medium-term goals but are free to decide for themselves how best to achieve them.
Follow-up – *Prescribed reporting.* Managers must report any variations to plan and gain approval for changes. Bad news is often suppressed as it reflects adversely on manager performance.	**Follow-up – *By exception.*** Managers are trusted and operate under a "no blame" culture. They take risks (and make mistakes). Bad news is immediately shared with seniors who may give coaching and support.

Distribution of scores (1-10)

Total population 217 companies
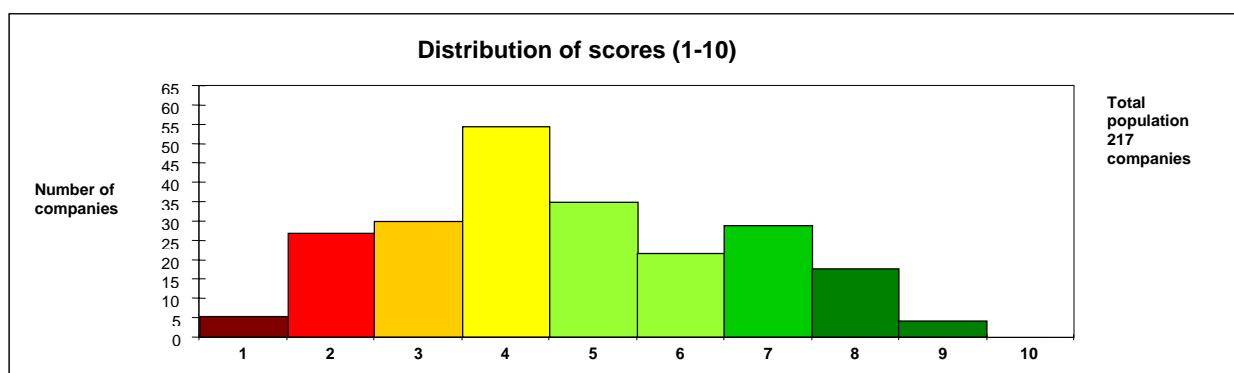
		Scores on scale (1-10)						
		Min	L.D.	L.Q.	Median	U.Q.	UD	Max
	No.							
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500-1000 employees	33	2	2	3	4	4	7	8
1000-5000 employees	67	1	2	3	4	7	7	9
Over 5000 employees	56	1	2	3	4	6	7	8

Principle 3 – Capability to act

This principle contrasts the capabilities of managers to act in the 'industrial age' management model with those in the 'information age' model.

Statement A	Statement B
Implement approved plans (1)	**Make autonomous decisions** (10)
Senior management roles – *Commanders and controllers.* Senior managers are the decision makers and control local actions.	**Senior management roles** – *Coaches and co-ordinators.* Senior managers act as coaches and mentors and as cross-border integrators.
Local management roles – *Doers.* Local managers are implementers of the plan.	**Local management roles** – *Thinkers and doers.* Local managers are planners *and* implementers of the plan.
Management competencies – *Job or task oriented.* Managers are trained to perform their jobs.	**Management competencies** - *Decision makers.* Managers are trained to think and act on their feet, making fast decisions in response to changing markets.
Information – *Slow, restricted, and financial.* Information is geared to central control. Local managers only see what they 'need to know'.	**Information** – *Fast, open, financial and strategic.* Information is geared to local control and learning but piped to all parts of organisation at same time.
Access to resources – *Through budget negotiation.* Resources are agreed through annual budget process for a given set of assumptions. Changes require approval.	**Access to resources** – *when required.* Managers are free to 'buy in' resources as needed through internal or external market provided they meet their goals (e.g. cost/income ratio).

Distribution of scores (1-10)

Total population 217 companies

		Scores on scale (1-10)						
	No.	**Min**	**L.D.**	**L.Q.**	**Median**	**U.Q.**	**UD**	**Max**
Total population *(see chart)*	217	1	2	3	4	5	7	9
Subgroups by country								
Australia	77	2	2	3	4	5	6	8
Denmark	64	2	3	4	5	6	7	9
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1000-5000 employees	67	1	2	3	5	5	7	8
Over 5000 employees	56	2	2	3	4	6	6	8

Principle 4 – Coordination

This principle contrasts the mechanisms used to co-ordinate activities in the 'industrial age' management model with those used in the 'information age' model.

Statement A	Statement B
Through plans and budgets (1)	**Through market-like forces** (10)
Co-ordination – *Recognised techniques.* Normal channels of communication are restricted to within hierarchical groups, but processes like VBM, BSC, ABM and budgeting are used to make the hierarchy work better. They enforce alignment and co-ordination across the business and are used for cause-and–effect management.	**Co-ordination – *Market-like forces.*** Channels of communication are open and based on the network of work units. Co-ordination happens naturally in a market-like network through alliances between internal suppliers and customers (not through central planning) especially when units are value (not cost) centres.
Knowledge sharing – *No inclination.* Performance measures and incentives are departmental or individual and tend to encourage parochial attitudes. Improvement initiatives are based on departments.	**Knowledge sharing – *Mutual benefit.*** Sharing of knowledge and best practices is encouraged through values, performance visibility and group-wide rewards. Cross business initiatives are based on processes and projects.
External alliances – *Uncoordinated.* Alliances with suppliers, customers and partners are often uncoordinated.	**External alliances – *Co-ordinated.*** Alliances with suppliers, customers and partners are co-ordinated (e.g. through e-business networks).

Distribution of scores (1-10)

Number of companies

Total population 217 companies

	No.	Scores on scale (1-10)						
		Min	**L.D.**	**L.Q.**	**Median**	**U.Q.**	**UD**	**Max**
Total population *(see chart)*	217	1	2	3	4	6	6	9
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Over 5000 employees	56	2	2	3	4	5	6	7

Principle 5 – Goal setting B5

This principle contrasts the processes used in setting goals for managers in the 'industrial age' management model with those used in the 'information age' model.

Statement A	Statement B
Negotiated & incremental (1)	**Relative to competitors** (10)
Process – *Internal.* A lengthy exercise in negotiating and co-ordinating numbers.	**Process** – *External.* A brief process of setting goals relative to external measures.
Value added – *Low.* Budgeting can take months and many man-years of time, but produces little more than numbers	**Value added** – *High.* Value-adding process as strategy is understood and improved, and action plans are created and aligned with goals.
Goals – *Incremental & fixed.* Goals are the result of negotiation about improving current financial numbers.	**Goals** – *Stretched & relative.* Goals are "impossible dreams" that drive continuous planning and improvement.
Link to value creation – *Financial.* ROCE is proxy for shareholder value.	**Link to value creation** – *Strategic.* KPI's provide clear links to increasing shareholder and customer value.
Frequency – *Annual.* Budgeting cycle based on financial year.	**Frequency** – *Continuous.* Self-regulating relative measures used, making cycle irrelevant.
Degree of ownership – *Weak.* Top-down targets and a numbers oriented process.	**Degree of ownership** – *Strong.* Compelling logic - If competitors and benchmarks can do, why can't we?
Link to rewards – *Connected with goal setting.* Goals are performance contract agreed in advance.	**Link to rewards** – *Disconnected from goal setting.* Rewards based on actual performance with benefit of hindsight.

Distribution of scores (1-10)

Total population 217 companies
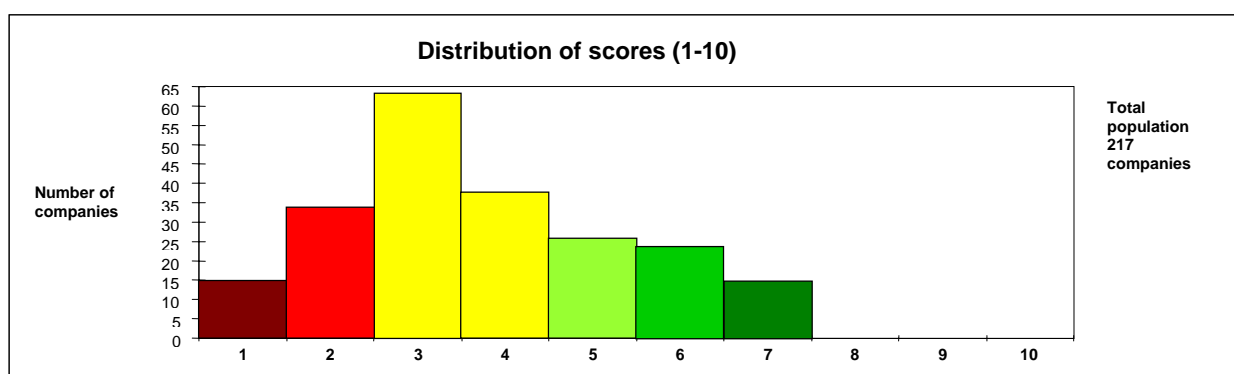
	No.	Scores on scale (1-10)						
		Min	**L.D.**	**L.Q.**	**Median**	**U.Q.**	**UD**	**Max**
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UK	57	2	3	3	3	4	4	4
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1000-5000 employees	67	1	2	3	3	5	5	7
Over 5000 employees	56	1	2	2	3	5	5	7

Principle 6 – Strategy process

This principle contrasts the processes used to formulate, communicate and evolve strategy in the 'industrial age' management model with those used in the 'information age' model.

Statement A	Statement B
Annual and top-down (1)	**Continuous and inclusive** (10)
Direction – *Tightly defined.* Top-down process with middle managers given the strategy that should drive their budgets.	**Direction** – *Within boundaries.* A clear statement of business purpose gives managers the freedom to act.
Communication – *Restricted.* Strategic thinking is restricted to authorised people.	**Communication** – *Inclusive.* Channels open to all those who can make a valid contribution to strategy.
Frequency – *Annual.* Planning and budgeting process typically take 6-12 months to complete.	**Frequency** – *Continuous.* Managers redefine local strategy as they anticipate or react to competitive actions and internal events.
Responsiveness – *Fixed.* Strategy is fixed for the year ahead.	**Responsiveness** – *Flexible-* Strategy remains flexible and responds to changing conditions.
Ambition – *Incremental.* Limited by income ceiling and cost floor mentality.	**Ambition** – *Stretch.* Planning is driven by external benchmarks and competitive performance.
Improvement scope – *Departmental.* Focuses on cost cuts *not* customer benefits.	**Improvement scope** – *Process.* Concerned with customer benefits & cross functional improvement.
Learning – *"Not invented here"* mentality erects barriers to improvement.	**Learning** – *Relentless search* for best practices wherever they occur.

Distribution of scores (1-10)

Number of companies

Total population 217 companies

		Scores on scale (1-10)						
	No.	**Min**	**L.D.**	**L.Q.**	**Median**	**U.Q.**	**UD**	**Max**
Total population *(see chart)*	217	1	2	3	4	6	7	8
Subgroups by country								
Australia	77	2	3	3	5	5	7	8
Denmark	64	2	3	4	5	7	7	8
UK	57	3	3	4	4	5	5	6
USA	19	1	2	3	4	5	6	7
Subgroups by industry								
Services	104	1	3	3	5	6	7	8
Production	93	2	3	4	5	6	6	8
Non-profit	20	3	3	4	5	6	7	7
Subgroups by size								
Less than 100 employees	25	2	2	4	5	7	8	8
100 - 500 employees	36	3	3	4	5	6	7	8
500-1000 employees	33	3	3	3	4	5	7	7
1000-5000 employees	67	1	3	4	4	6	7	8
Over 5000 employees	56	2	2	4	4	6	7	8

Principle 7 – Forecasting

This principle contrasts the purpose and processes used in anticipatory management in the 'industrial age' management model with those used in the 'information age' model.

Statement A	Statement B
Used to keep on track (1)	**Used to inform strategy** (10)
Purpose - *Control.* Another weapon for senior management in controlling units.	**Purpose - *Anticipation.*** Assists local and senior managers to identify actions needed.
Performance management – *Linked.* Forecasts linked to budgeting process with implications for measures & rewards.	**Performance management – *Disconnected.*** Forecasts are separate from performance targets, measures & rewards, and are impartial best estimates.
Time horizon - *Year-end.* Forecasts usually prepared quarterly but only up to financial year-end.	**Time horizon - *Rolling.*** Forecasts always look one or more years (usually 5 quarters) ahead. Updated frequently.
Effort & involvement – *Heavy.* Based on full recompilation of budget. Takes weeks of effort and significant management time. Involves all budget holders and finance people.	**Effort & involvement – *Light.*** Build a broad-brush picture of key financial numbers that are quick to prepare (hours rather than weeks), and only involve senior business unit or divisional managers and finance people.
Links to strategy – *Weak*. Forecasts financial indicators only. No KPIs.	**Links to strategy – *Strong.*** Forecasts KPIs (e.g. customer retention), as well as financial numbers.
Support tools – *Budgets.* These are invariably the basis of re-forecasts.	**Support tools – *Forecasting models.*** These may be used to collate and present information.

Distribution of scores (1-10)

Total population 217 companies

	No.	Min	L.D.	L.Q.	Median	U.Q.	UD	Max
		Scores on scale (1-10)						
Total population *(see chart)*	217	1	2	3	4	6	7	9
Subgroups by country								
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Denmark	64	1	2	3	4	5	6	7
UK	57	3	3	3	4	5	5	5
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Principle 8 – Resource utilisation

This principle contrasts the processes used to manage resource utilisation in the 'industrial age' management model with those used in the 'information age' model.

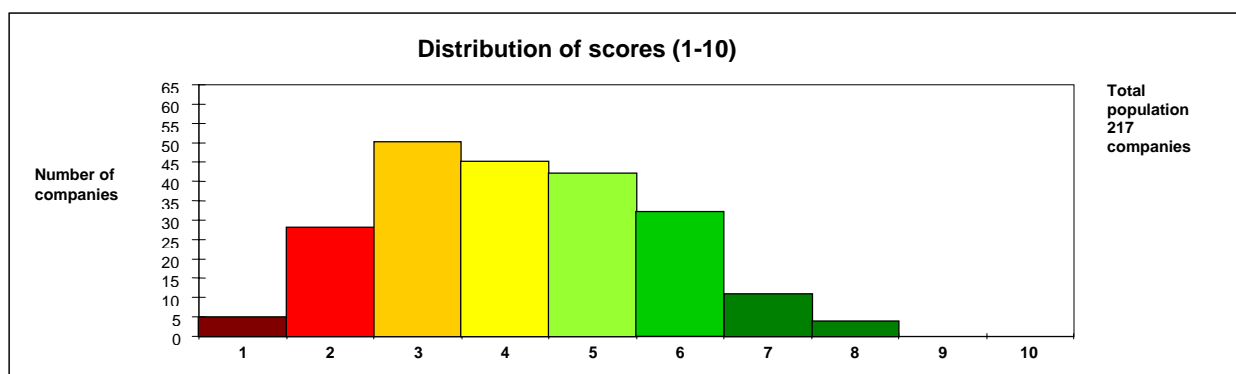| Statement A	Statement B
Allocated annually (1)	**Available when required** (10)
Approval criteria – *All expenditure.* Annual budget submissions are the basis for approval by the Centre of all capital and revenue expenditure.	**Approval criteria –** *Discretionary only.* Project plans are the basis for approval of *major* capital and *discretionary* revenue expenditure in a continuous process.
Resource allocation – *Predetermined.* Capacity levels are set when budgets are agreed and used as the basis for allocating resources.	**Resource allocation -** *Continuous matching.* Units are managed against goals (e.g. Cost/income ratio) and themselves regulate resource levels in accordance with changing demand.
Central services - *Arbitrary allocation.* Costs of central services & other resources are allocated indirectly. Internal customers have little say over prices and service levels.	**Central services -** *Internal market.* Central services and operational resources (e.g. people skills) are acquired through an internal or the external market. Units are charged directly and have a strong say.
Accounting focus – *Departments.* Costs managed through budget variances, and whether they go up or down. Decision-making is difficult as focus is department.	**Accounting focus –** *Value chain.* Costs are managed using moving averages and league tables. Decision-making is made easier through designing units as stages in the value chain.

Distribution of scores (1-10)

Number of companies

Total population 217 companies

		Scores on scale (1-10)						
	No.	**Min**	**L.D.**	**L.Q.**	**Median**	**U.Q.**	**UD**	**Max**
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1000-5000 employees	67	1	3	3	4	5	7	8
Over 5000 employees	56	1	2	3	3	5	6	8

Principle 9 – Control

This principle contrasts the purpose and processes used to control performance in the 'industrial age' management model with those used in the 'information age' model.

Statement A	Statement B
Compliance with plan (1)	**Self-regulation** (10)
Purpose – *Senior managers.* To check that local managers are "on track" in implementing their plans, and complying with rules and procedures.	**Purpose – *Local units.*** To use controls (dispersed across the network) to have a good knowledge of what's going on for self-regulation.
Measures – *Financial & fixed.* Capital & earnings measures provide detail by department. Adverse variances vs budget are highlighted for explanation.	**Measures – *Strategic & relative.*** - A range of KPI's is used as the basis for performance comparisons with targets, competitors, peers and last year.
Analysis – *Hierarchical.* Budget reports by department with expense category details.	**Analysis – *Customer profitability.*** Fast and open information based on activity accounting.
Clarity – *Numbers.* Very detailed sets of numbers enable micro management.	**Clarity – *Visual.*** Graphs & charts clearly show trends and moving averages.
Feedback & learning – *Limited.* Financial variances don't explain root causes.	**Feedback & learning – *Extensive.*** KPIs linked to action plans enable managers to examine root causes.
Early warning – *Unlikely.* Reports usually contain only lagging indicators.	**Early warning – *Likely.*** Reports give leading and lagging indicators thus giving early warning.

Distribution of scores (1-10)

Total population 217 companies

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Subgroups by country									
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UK		57	3	3	3	3	5	5	5
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Production		93	2	3	3	4	5	6	8
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Subgroups by size									
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Over 5000 employees		56	1	2	3	3	5	6	8

Principle 10 – Rewards

This principle contrasts the approach used to motivate and reward employees in the 'industrial age' management model with that used in the 'information age' model.

Statement A	Statement B
Individual, fixed incentives (1)	**Group-wide, relative rewards (10)**
Linkage – _Internal_. Usually linked to budget, or other internal measures (e.g. past unit or company performance).	**Linkage – _External_**. Rewards based on relative competitive performance (e.g. ROCE or total shareholder returns).
Focus – _Individual_. Based on budget holder and/or the business unit.	**Focus – _Teamwork_.** Profit sharing based on unit, company or group-wide performance.
Motivation – _Money_. Belief that financial incentives drive performance.	**Motivation – _Success_.** Beating the competition or one's peers is the motivational force.
Visibility – _Low_. Financial rewards may have evolved into a labyrinth of incentives.	**Visibility – _High_.** League tables motivate through peer pressure and pride in achievement.
Related to future results – _Unlikely_. Rewards based on outcome measures.	**Related to future results – _Likely_.** Related to leading indicators (e.g. quality or customer satisfaction).
Basis - _Contract_. Incentives based on targets negotiated in advance.	**Basis - _Hindsight_.** Rewards based on actual results, knowing how things turned out.
Recipients – _Few_. Incentives are for senior people (e.g. Stock options).	**Recipients – _All_.** Everyone receives reward, helping to create a culture of teamwork.

Distribution of scores (1-10)

Total population 217 companies

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		Scores on scale (1-10)						
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Over 5000 employees	56	2	2	3	4	5	6	8

Questionnaires used in the survey

Delegates completed questionnaires similar to those given here. Descriptions of the principles were given to the delegates in their course papers. They were similar to those given at Appendix B above. The survey results were based on four 'organisational context' principles, although in this questionnaire (used in Australia, UK, and USA) responses were obtained for six principles.

CAM-I (1)

Please enter your results here and give this copy to CAM-I. The results will only be used __anonymously__ to prepare survey reports. We will send you a copy.

In this section, the information will be used to categorise your results (e.g. By size, industry, location & ownership)

Your name	Today's date · Day/Mo/Yr
E-mail address *(For survey report)*	
Your position *(Job title)*	**Dissatisfaction with budgeting** *(On scale 1=Low 5=High)*
Name of "Your Company"	
Industry of Company	
Name of ultimate group	**Size:** Employees · Sales revenue p.a.
Country: Company	**Company** · No. · US$m
(Head Office location) Group	**Group** · No. · US$m

In this section, please enter the scores from the individual sheets (e.g. A1, A2 …)

	1. Leader	2. People	3. Infra.	4. Process	5. Custom.	6. S'holder	Averages
A1. Business environment	A1.1	A1.2	A1.3	A1.4	A1.5	A1.6	All A1s
A2. Required responses	A2.1	A2.2	A2.3	A2.4	A2.5	A2.6	All A2s
A3. Benefits & risks	A3.1	A3.2	A3.3	A3.4	A3.5	A3.6	All A3s
Strategic context Averages	All An.1s	All An.2s	All An.3s	All An.4s	All An.5s	All An.6s	A's

Please write any comments or further information overleaf

CAM-I (2)

Please enter your results here and give this copy to CAM-I. The results will only be used __anonymously__ to prepare survey reports. We will send you a copy.

In this section, please enter the scores from the individual sheets (e.g. B1, B2 …)

	1. Leader	2. People	3. Infra.	4. Process	5. Custom.	6. S'holder	Averages
B1. Organisational purpose	B1.1	B1.2	B1.3	B1.4	B1.5	B1.6	All B1s
B2. Organisation design	B2.1	B2.2	B2.3	B2.4	B2.5	B2.6	All B2s
B3. Co-ordination & coherence	B3.1	B3.2	B3.3	B3.4	B3.5	B3.6	All B3s
B4. Information systems	B4.1	B4.2	B4.3	B4.4	B4.5	B4.6	All B4s
B5. Freedom to act	B5.1	B5.2	B5.3	B5.4	B5.5	B5.6	All B5s
B6. Capability to act	B6.1	B6.2	B6.3	B6.4	B6.5	B6.6	All B6s
Organisational context Averages	All Bn.1s	All Bn.2s	All Bn.3s	All Bn.4s	All Bn.5s	All Bn.6s	B's
C1. Goal setting	C1.1	C1.2	C1.3	C1.4	C1.5	C1.6	All C1s
C2. Anticipatory management	C2.1	C2.2	C2.3	C2.4	C2.5	C2.6	All C2s
C3. Strategic management	C3.1	C3.2	C3.3	C3.4	C3.5	C3.6	All C3s
C4. Resource management	C4.1	C4.2	C4.3	C4.4	C4.5	C4.6	All C4s
C5. Measurement & control	C5.1	C5.2	C5.3	C5.4	C5.5	C5.6	All C5s
C6. Motivation & rewards	C6.1	C6.2	C6.3	C6.4	C6.5	C6.6	All C6s
Performance management Averages	All Cn.1s	All Cn.2s	All Cn.3s	All Cn.4s	All Cn.5s	All Cn.6s	C's
D. Competitive performance: *Average Return on Equity in past 2 yrs:*				%	Ranking (1-5):		D

Please write any comments or further information overleaf