

Benchmarking Your Firm's Performance With Best Practice.

Benchmarking is an improvement technique that considers how others perform a similar activity, task, process or function. This article details the application of benchmarking as an improvement technique. It provides a background of what to benchmark and the selection of benchmarking partners. A methodology for defining supply chain management best practice is explained as well as the marriage between benchmarking and networking to provide an ongoing improvement focus.

By comparing your firm's operations to those of other organisations, there is potential to learn and improve performance.

Benchmarking is not only a comparison of key performance indicators (KPIs) although benchmarking uses KPIs to compare operations. The use of KPIs as a management tool has wider application. But many organisations see KPIs and benchmarking as synonymous. The focus of the benchmarking process should be on improvement and the use of KPI's to facilitate this process.

Benchmarking should be more about qualitative or process discussion where the benchmarking partners learn about a particular activity of another operation. The networking and discussion that occurs ensures that the quantitative comparison of KPI's is valid and similar things are being compared. Without the networking and process discussion, the benchmarking partner is never sure that the quantitative comparisons are valid. It is dangerous to form conclusions and develop improvement strategies on quantitative comparisons without understanding the processes and the definitions behind these performance comparisons.

Benchmarking does not have to include performance measure comparison. For example benchmarking could be used to develop a performance measurement system. This process would involve analysing your current performance measurement system and then comparing that to other organisations.

The benchmarking process, should include the following steps:
Defining where you are in the activity to be benchmarked. This often includes understanding the relevant policy that

exists in the area to be benchmarked. To assess if the policy is achieved, the established procedure must be understood. The procedure will only be followed if disciplines exist to ensure the procedure is followed. To test if the policy is adhered to an outcome should be monitored. The policy, procedure, disciplines and outcomes are all part of understanding current performance.

- Determine the level of performance that is wanted in the given activity; and
- Determine how and what type of improvement is implemented to achieve stated targets, and in what timeframe.

Often management is not aware of what could be achieved until they benchmark. One example is a transport company where management believed that current performance of 9 cents per kilometre travelled for tyres cost was very good. They believed this because the supplier confirmed their perception. Through the benchmarking process, management identified that other comparable transport companies were performing at 5 cents.

The Benchmarking Process

Rather than explain the benchmarking process in theoretical terms, it may be instructive to understand it from a practical sense. Following on from the tyre costs example above, the tyre management process was benchmarked within a non-competitive benchmarking peer group (described later in article). The steps in benchmarking this activity occurred over a 6 to 12 month period. Initially, tyre costs and tyre management was highlighted as a critical factor in the successful management of a transport fleet. The eight senior managers who were members of the peer group defined the performance measure of tyre costs, as the

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total tyre costs divided by kilometers travelled.

To ensure the performance comparison across the eight companies was valid and relevant, face to face discussions over a 6 to 12 month period occurred. This ensured that all benchmarking partners were measuring the same process and that similar costs were included in the analysis.

The first round of this iterative performance comparison process identified a significant spread between tyre costs of 4.6 cents per km travelled and 11 cents. The members saw this as a surprising outcome given that the fleets of trucks being compared were all similar. The initial reaction was disbelief and questions were asked about how members were measuring the cost. After all, how could a professional well-managed transport company have tyre costs of 11 cents while another organisation have costs of 4.6 cents.

The benchmarking process is very personal when it involves face-to-face peer group meetings. After a 6-month period where data was normalised, a similar performance gap existed. Discussion about the tyre management process highlighted significant improvement opportunities by better managing the tyre process. The organisation with 4.6 cents per kilometre travelled detailed the tyre management process to other benchmarking partners who absorbed this relatively sophisticated process, and then embraced process improvement within their own organisation.

After introducing policy and process changes, the partners saw a significant improvement in tyre costs. When spread over a fleet of 100 vehicles, all travelling 150,000 kilometres per annum, the cost savings of a 2 cent cost reduction amounts to hundreds of thousands of dollars. In another internal transport benchmarking group, the site with the highest tyre cost was declared best practice, highlighting that best practice is not necessarily tied to the lowest cost.

The higher costs were explained by different operating characteristics. Benchmarking must focus on improvement opportunity and not solely on performance measures as an end in themselves.

Best Practice

Through benchmarking management can identify best practice. They can consider the gap between current and best practice performance and develop a timeframe for improvement. The best practice benchmark is simply the best KPI in the relevant area. This is a moving target because organisational improvement is a dynamic process.

There is no one company who is best practice in all activities. Best practice must be considered across a range of operational and functional areas. The challenge for any management team is to achieve best practice in the areas critical to the success of the organisation.

As a way of explanation, consider whether an organisation exists where:

- More than 85% of customer orders are delivered in full and on time, based on the customer's first request.
- Management has an awareness of total supply chain costs and understands costs from a per customer order perspective.
- Logistics and supply chain management strategies are based on customer requirements that are provided by actual customers.
- A formal sales and operations planning process exists which is focused on managing contingencies that arise on a day-to-day basis.
- Strong cross-functional links exist across the organisation and all processes are best practice.

It would be rare to find an organisation that could honestly answer yes to all the above operational criteria. These criteria could also be extended by other best practice characteristics including:

- An integrated aligned performance measurement system.

To ensure the performance comparison across the eight companies was valid and relevant, face-to-face discussions over a 6 to 12 month period occurred.

The benchmarking process is very personal when it involves face-to-face peer group meetings.

The survey results should be prioritised by the attributes that provide the best opportunities for building a competitive advantage or eliminating a competitive disadvantage.

- Benchmarking to pursue best practice with a focus on continuous improvement.
- Championship and information to ensure the best decision is always made.
- An empowered workforce committed to continuous improvement.
- Appropriate levels of technology and more importantly, people who can make them work for the business.
- Supply chain planning and co-operative formal relationships with customers and suppliers.

Our benchmarking research across Australia, New Zealand and South East Asia and other international research highlights that no one organisation achieves all this.

Figure 1 illustrates that benchmarking is one of many improvement techniques and shows the role benchmarking can play in organisational improvement.

Beginning A Benchmarking Project

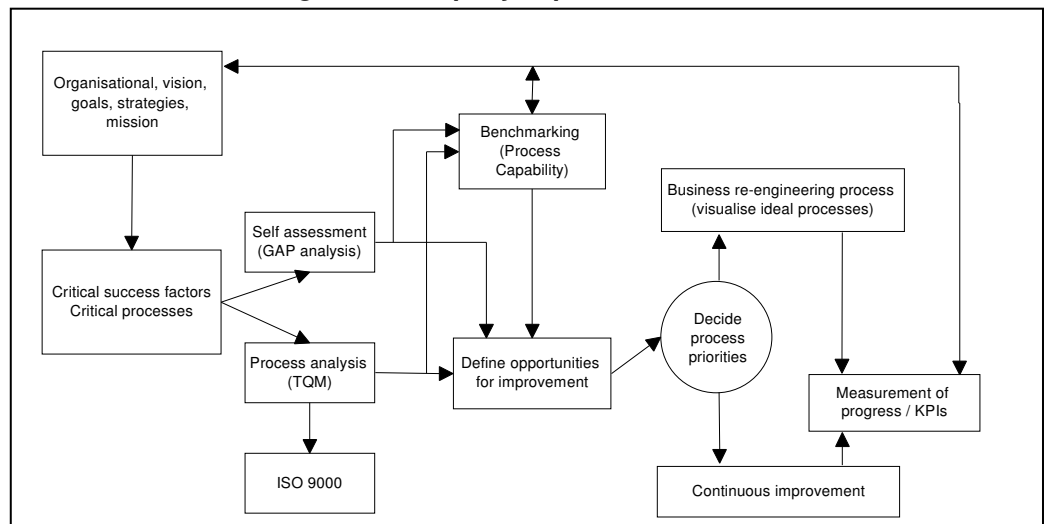
Any benchmarking project should form part of an overall strategic objective. This objective will assist in determining relevant benchmarking projects. The planning of a benchmarking project should consider, what and who to benchmark. Figure 2 highlights the options of who to benchmark. Both internal and external benchmarking can involve customers, competitors, non-competitors and suppliers. For example, in the case of a vertically integrated firm, where suppliers and / or customers are owned, this would

be internal benchmarking. Some organisations own competitive companies that may benchmark with each other.

If the focus is on improving customer service, an appropriate starting place is a customer survey, which includes customer and competitive benchmarking analysis. An appropriate method is detailed by Lambert & Stock. [1]. This type of customer benchmarking survey identifies how you compare against your competitors and how all suppliers compare against customer expectations. These customer surveys often provide a menu of improvement opportunities. The survey results should be prioritised by the attributes that provide the best opportunities for building a competitive advantage or eliminating a competitive disadvantage.

It is rare that you are able to ask competitors how to improve your own processes. A process improvement focus necessitates that you benchmark organisations other than competitors. This could include customers, non-competitive organisations (either within your industry or outside your industry), suppliers, and other internal operations. If you are a single site operation, the capacity to conduct internal benchmarking is limited. If you are a multi sited and multi – national organisation, the potential for internal benchmarking is extensive. The concept of the benchmarking process should be to transfer the current internal best across the organisation.

Figure 1: Company Improvement Process



The question of where to start the benchmarking project is affected by the results of the customer survey and the type and availability of benchmarking partners. Table 1 details the options. The first column in the table details the type of activity that occurs in a process benchmarking project. This includes a focus on KPIs, and process discussions that can also include site visits of benchmarking partners. The issue of confidentiality within the benchmarking project will be determined by the partners with whom you benchmark. If you benchmark with a competitor then confidentiality will most probably be an issue.

Across the top of the table details the options for benchmarking partners. The first choice is internal or external benchmarking. The next choice is with one other company, a peer group environment or a database of information. Within each of these external benchmarking options you can choose to benchmark with competitors, competitors in the same industry and organisations in other industries. The same three options exist for a networking environment of five to eight companies.

The three activity inputs of the benchmarking process and the type and number of benchmarking partners will impact what you achieve in the project. Is the improvement best practice within your industry or across industries?

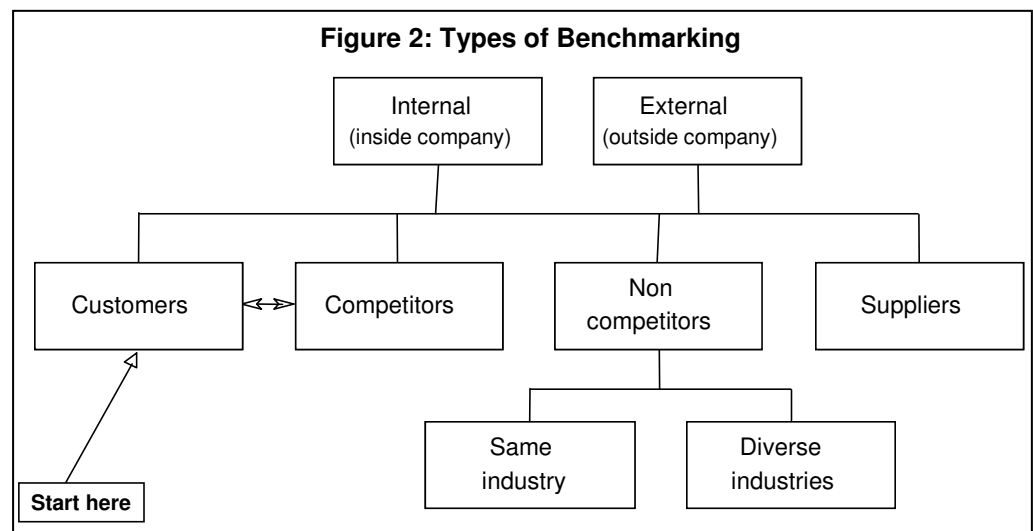
Another issue relevant to western economies is the secrecy across functional areas. Benchmarking can provide visibility

of one process through an organisation. The advantage here is to identify improvement opportunities relevant in functional areas. Many organisations develop a set of performance measures and distribute this to partners to compare performance. This is the first step in attempting to quantify current performance. If no face to face discussions occur between the relevant parties, then no one is sure that the comparisons are valid. KPI comparisons should be used as a facilitator of the benchmarking process to improve performance.

Survey Methodology

Best practice logistics management is defined as delivering customer requirements at the lowest possible cost [2]. This is a complex cross functional equation. Since 1993, Benchmarking Success has undertaken exhaustive research with more than 100 organisations to identify and investigate the various components that determine best practice logistics. This subsequently led to the development of a survey and a model to define best practice logistics. The objective in developing the survey was to gain information on how organisations:

- Defined current performance levels
- Quantified the gap between current levels and best practice.
- Managed the logistics process from the perspectives of inputs into the system and logistics outputs.



The methodology to define best practice logistics is called the Champions - Challengers Analysis.

The survey includes about 90 multiple-choice questions where respondents are requested to identify the appropriate range that satisfies their firm's current performance. The survey consists of eight parts including: Company profile, logistics and supply chain management within organisation, purchasing / procurement / supplier management, inventory management, warehouse / distribution centre management, transportation, customer service, and analysis of functional and logistics costs.

The survey format facilitates checking of company results to ensure they are sensible and correct. This enables management to test if the quoted customer service level is achievable. For example, if a spare parts organisation that imports all products is not overstocked and quotes supplier performance at 75 percent in full and on time, it is unlikely to be able to achieve customer service levels of 99 percent in full and on time.

When the survey is completed the results are reviewed with management. This ensures that the interpretation of questions is consistent within an organisation, and across all organisations from a range of industries. It also provides an opportunity to test if the responses provided are actual or simply best guesses. Once the results are reviewed and finalised, the survey results are entered into the database.

Champions - Challengers Analysis

The methodology to define best practice logistics is called the Champions - Challengers Analysis. The outcome of the analysis plots the organisation's logistics performance compared to other organisations in the database, separated by logistics inputs and outputs. The methodology was based on discussions with a number of logistics and supply chain consultants, Lambert & Stock [3], the Michigan State University (MSU) World Class Logistics (WCL) research [4] and research with over 200 Australasian companies.

First, the survey results are sorted into strategic information and tactical information. Then, the strategic information is segregated into supply chain inputs and outputs. The outputs are then further segregated into logistics costs and customer service levels. Logistics inputs include supply chain and functional (eg purchasing, warehousing) strategic planning; procedures (eg. ISO accreditation) and organisational programs developed to deliver the stated policies as defined in strategic plans; disciplines to ensure that procedures developed are followed (eg the use of performance measures to manage the business); the use of technology, (eg. radio frequency, electronic commerce); cultural issues, (including management style, organisational culture, performance measurement); and, information systems (level of integration and connectivity).

**Table 1
Where to Start the Benchmarking Project**

Who participates / Activity		External Benchmarking				
		Two companies			Five –eight Companies	Many Companies
		Same industry		Different industries		
Internal Benchmarking	Competitors	Non competitors	Different industries		Different industries	Databases of a range of industries
Quantitative focus (KPIs)	YES	POSSIBLE	YES	YES	YES	YES
Process discussions and site visits possible	YES	UNUSUAL	YES	YES	YES	No
Confidentiality concerns	NO	YES	NO	NO	NO	YES
Achieve understanding of best practice	NO	NO	UNLIKELY	UNLIKELY	LIKELY	POSSIBLE

While many organisations that have invested heavily in logistics inputs may be perceived as leading edge, they may simultaneously be delivering an outcome that is below expected customer service levels, or at a high cost. These organisations should not be best practice examples.

Logistics outputs are an outcome of the supplier performance, inventory stockturns, the number of times product is handled in a warehouse, functional service levels, the overall customer in full on time delivery service level, invoice accuracy, functional logistics costs (such as purchasing, warehousing, etc) and overall logistics costs.

The WCL research conducted by MSU developed a best practice model, which tended to focus on logistics inputs rather than outputs [5]. Some survey question results depended on the performance level the day the survey was completed. Therefore, leading companies who had already achieved improvement in the respective area did not fair as well as companies who had achieved improvement in the previous 12 months.

Comparing logistics inputs only between organisations to determine best practice performance has limited application. While many organisations that have invested heavily in logistics inputs may be perceived as leading edge, they may simultaneously be delivering an outcome that is below expected customer service levels, or at a high cost. These organisations should not be best practice examples. Organisational success is determined by outcomes, not inputs. Management want outputs consistent with strategic objectives, and develop inputs to deliver these outputs.

Champions & Challengers Charts

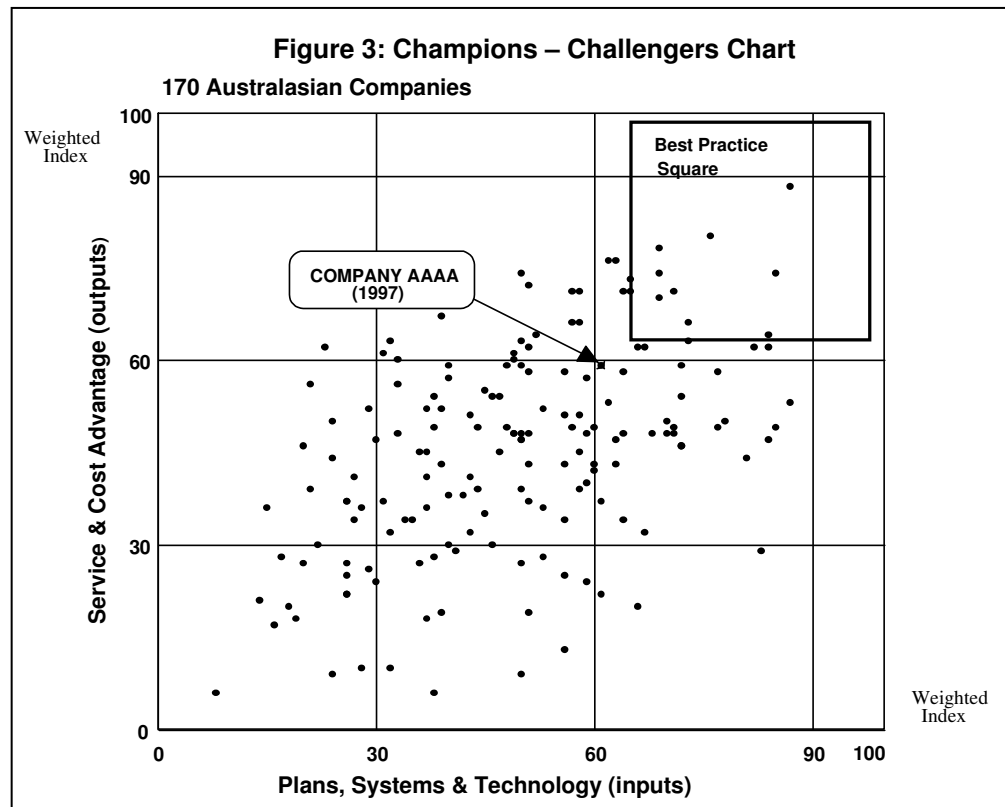
Figure 3 illustrates one output of the Champions & Challengers Analysis. It is a scatter diagram comparing all organisations that have completed the survey. The survey results are attributed a weighting score depending on their importance in determining logistics best practice. Best practice is defined as meeting customer required service levels, delivered at minimal cost to the logistics provider. Each survey result automatically receives a point's score out of 100 for logistics inputs and outputs. The scatter diagram comparing logistics inputs and logistics outputs can include specific groupings of companies according to relevant benchmarking partners. Figure 3 includes companies across all industries and supply chain activities. Specific Champions & Challengers charts provide guidance for one company's or industry's logistics input system. Examples include current logistics performance compared to best practice. The Champions &

Challengers charts with a benchmarking report and summary of results provides management with intelligence about the current performance and future logistics strategies that will satisfy the strategic objective. The benchmarking report is in a tabular format detailing the results from each section of the survey. Champions & Challengers charts can be prepared for a range of company groupings including:

- Suppliers to a common customer base such as retail suppliers, industrial suppliers, or a dealer network;
- Supply operations that service internal customers with maintenance spares or consumables;
- Cross Industry and industry groupings such as food and beverage, building, chemical, pharmaceutical;
- Companies that deliver product direct to stores.

The analysis enables management to place a stake in the ground to establish current performance. It also provides them with a view to potential improvements by comparing their firm with logistics best practice organisations. The Champions & Challengers Analysis considers the complexity of the organisation, such as the number of stock keeping units managed, the number of customer delivery points, the distribution channel and how much of the supply chain is managed by the organisation. That is, the analysis considers and compares the order fill for an organisation that performs direct to store delivery in contrast to an organisation that delivers to a distributor for on forwarding to the customer.

Depending on the complexity of an organisation and the competitiveness and level of maturity in the market place, management may strategically choose the firm's position on the Champions & Challengers chart, for example high on the logistics outputs score (high customer service at low costs) and low on the logistics inputs score. The level of complexity in some organisations will not require the use of leading edge technology; and, therefore their score on the inputs scale should be lower than a more complex logistics organisation.



The Champions-Challengers Analysis can be used to conduct internal benchmarking, comparing sites within a company.

Industry Analysis

Champions & Challengers charts by industry can be compared by trend lines, which plot a line of best fit through groups of relevant companies. These results indicate that different industries and groups of organisations with common customers are focussed on different areas for logistics performance. For example, the food and beverage trend line in comparison to other industries or groupings is the most vertical line, and biased towards outputs indicating that these organisations are very much focussed on logistics outcomes rather than inputs.

This is in stark contrast to supply organisations where the Champions & Challengers trend line is very flat in comparison to the food and beverage industry. The operating environment can explain this. Supply operations provide maintenance spares and consumables to maintenance groups and other employees. In this environment the cost of machinery down time on the production line is exorbitant, so there is less focus on the inventory cost to provide this service. In most instances they carry duplicate items as insurance against the cost of production downtime. As a result, the supply organisations have developed more sophisticated logistics input systems to

facilitate performance. The logistics costs tend to be higher and service levels lower because of more line item complexity than the other logistics operations.

Champions - Challengers Analysis and Internal Benchmarking

The Champions & Challengers Analysis can be used to conduct internal benchmarking, comparing sites within a company. Figure 4 details one corporation with five operating companies and highlights that divisions A2, A3, A4 and A5 have much to learn from A1.

Service Versus Cost Comparison

The Champions & Challengers analysis can segregate logistics outputs only, or logistics inputs only. The components of logistics outputs include functional service levels for purchasing, inventory, warehousing, transport and customer service and the costs incurred in achieving these service levels. Figure 5 highlights Company AAAA where management is focused on cost minimisation rather than high service levels. This Champions & Challengers Analysis shows that the challenge was to increase service without increasing costs dramatically. The ultimate objective is to be high service at low cost.

The Champions - Challengers Analysis has been used to provide a comparison of logistics performance over a period of time.

Champions & Challengers and Continuous Improvement

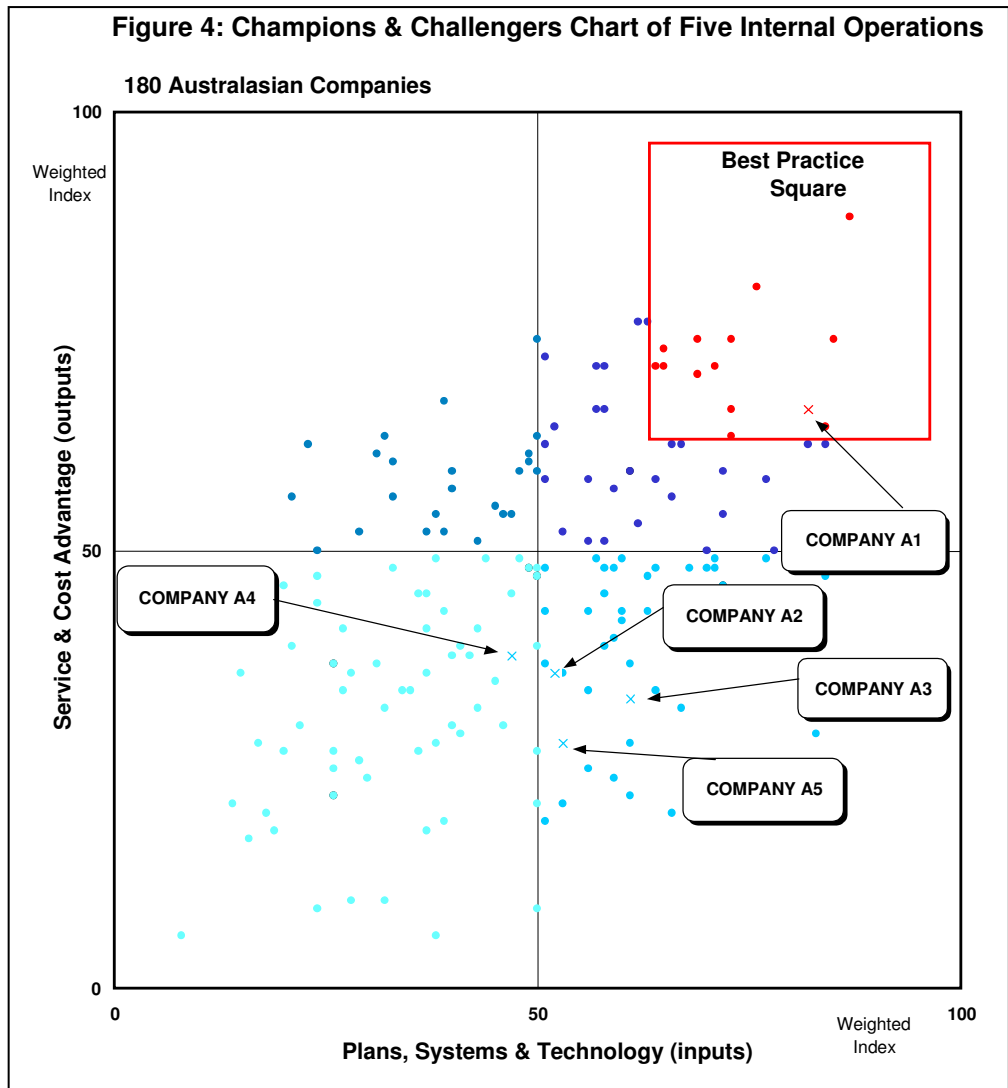
The Champions & Challengers Analysis has been used to provide a comparison of logistics performance over a period of time. Figure 6 highlights a company who has moved up and across the Champions & Challengers Chart from 1993 to 1997. In discussion with management it was discovered that this move was supported by an investment in a range of logistics inputs that are now delivering an improved logistics outputs. This analysis can be used in the strategic planning phase to measure whether the strategic plan has been achieved. It can measure an organisation's rate of improvement compared to other organisations.

Benchmarking and Networking

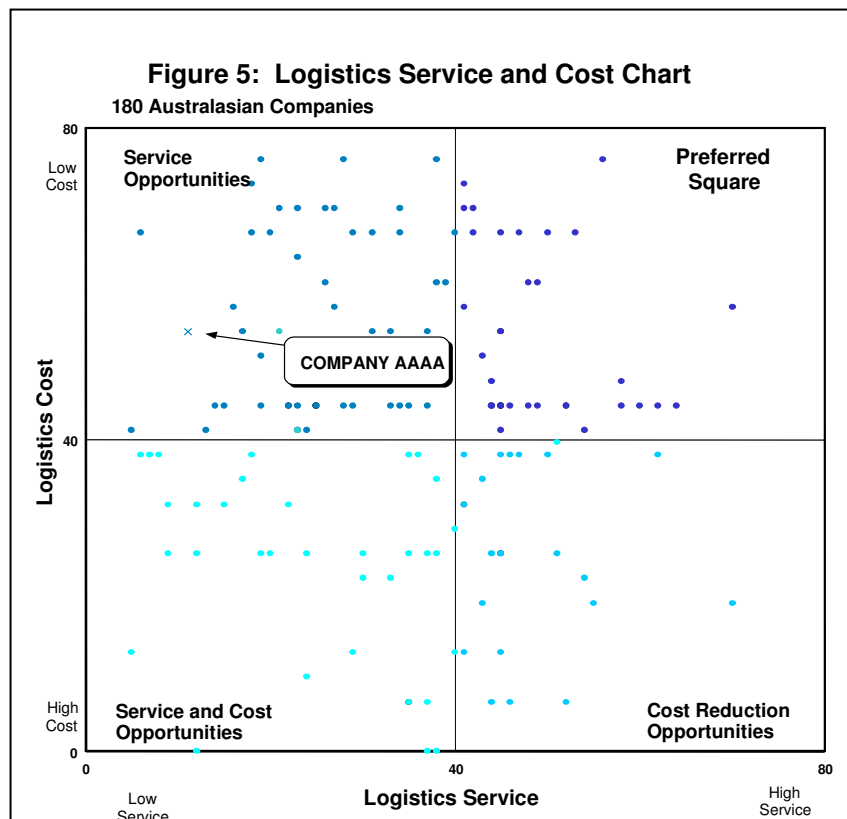
The Champions & Challengers Analysis was designed to facilitate an understanding of current logistics performance compared to best practice. It provided answers to the first two questions of the benchmarking process: what is my current performance level and secondly how does it compare to best practice? The third and most important question in benchmarking is a real challenge; how do I get to where I want to be within a stated timeframe.

Linking benchmarking with networking provides huge opportunities for cultural change and implementing change programs. Many managers believe that much of what they do is secret and cannot be shared with the outside world. The reality is that most of the information, which people regard as confidential, is available within the public domain.

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Companies operating at a similar level of performance as detailed in the Champions & Challengers Analysis form a peer group where the focus is mutual gain.



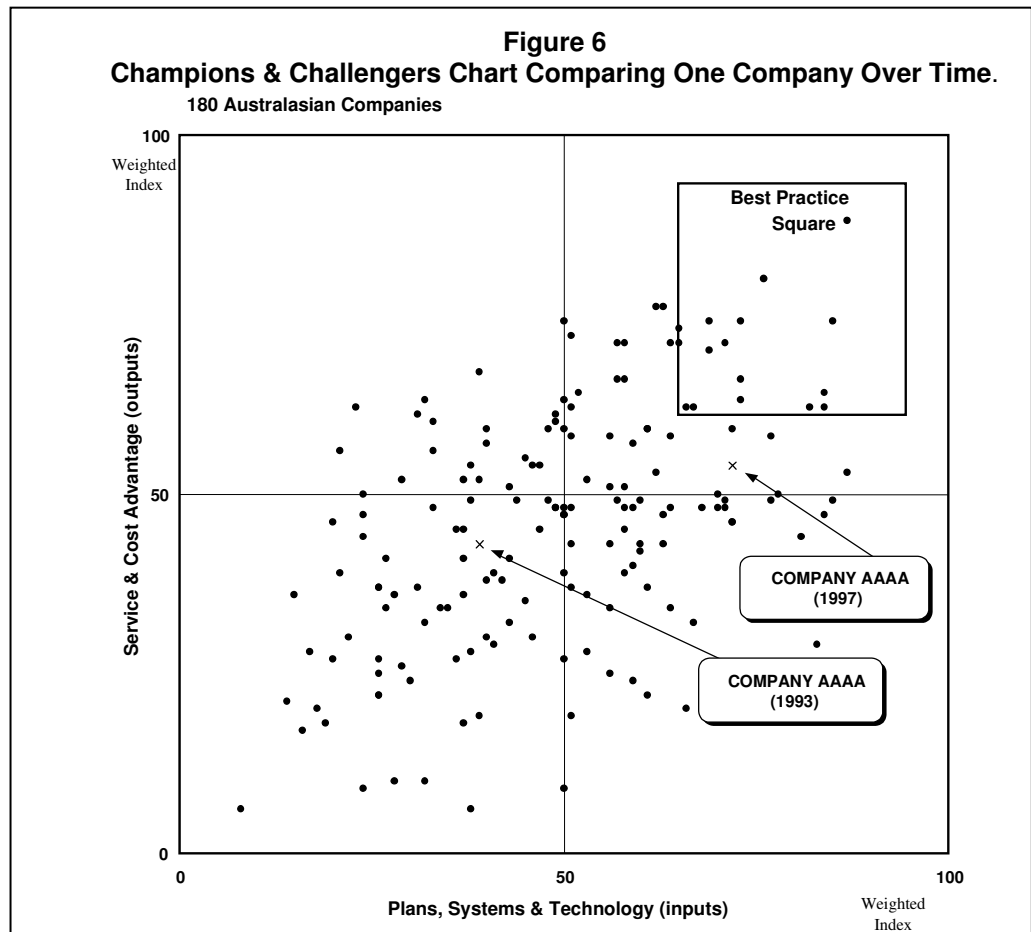
The benchmarking process linked with networking and face to face discussions moves an organisation from secrecy to openness. The application of benchmarking as an improvement tool must consider management motivation. Why would a senior manager or for that matter any process manager wish to benchmark with an organisation that delivers an outcome better than the outcome currently delivered? This process is affected when individual people are paid bonuses based on targeted performance measures. For example, if the logistics manager is paid a bonus based on a customer service case or unit fill measure, what motivation is there to record service from a line or order fill perspective, which will present results in a less favourable light? Line or order fill will highlight more improvement opportunities, but because the manager is paid on case fill then this is what is published and becomes the perceived service level.

The logistics benchmarking peer group program develops groups of up to eight non-competitor organisations who have common business processes. Companies operating at a similar level of performance as detailed in the Champions & Challengers Analysis form a peer group where the focus is mutual gain. For example, benchmarking groups consist of:

- Companies who service the retail trade (manufacturers and distributors).
- Distributors with a product range of over 2,000 and up to 60,000 SKUs with a dealer network. Commonality is complexity of line items, and
- The delivery of product to about 100 delivery points.
- Supply managers from a heavy engineering environment servicing internal customers with maintenance spares and consumables.

As at 1997 the networking program has consisted of over 100 organisations in more than 14 peer groups. Peer groups operate for a minimum of 12 months, and some are now five years old. Senior managers from member organisations meet two monthly or quarterly to discuss, learn and understand best practice logistics processes. The networking is a formal process with a structured agenda.

The benchmarking peer groups predominantly focus on organisations that have a common customer base. This commonality ensures that the benchmarking group has the capability of benchmarking on a long term basis by comparing a range of relevant performance measures.



One such group is a retail supplier peer group whose members include Carlton & United Breweries (CUB), The Smith's Snackfood Company, Nestlé Confectionery, Streets Ice Cream (Unilever), Shell Lubricants, Sunicrust Bakeries (Bunge), Queensland Independent Wholesalers, Hilton Hosiery (Sarah Lee), Arnott's Biscuits (Campbells) and The Boots Healthcare Company. This peer group is focused on benchmarking the supply chain.

In contrast there is another benchmarking group focused on transport management whose members include BP, the Cootes Transport Group, Bunge, Elgas, CSR Readymix, Murphy's Transport, Kalari, Associated Dairies, Australia Post, Pioneer, LS Booth, and FBT Operations.

A further group is focused on supply chain management from a distributors perspective. Members include: IBM, QDL (Queensland Distributors Limited), Australia Post, Moore Business Systems (Moore Paragon), Mayne Nickless Logistics, Honda Cars, Mercury Marine, Siemens and Hardy Spicer.

Yet another group is focused on supply operations where the focus is on providing material support to both maintenance groups and the general workforce in terms of spare parts and consumable products. Companies in this peer group included: Pacific Power, Tomago Aluminium, BHP Steel, Energy Australia, Mt Isa Mines, Queensland Alumina, Western Mining Company, and Prospect Electricity (Integral Energy).

Because the focus is on a peer group of companies then the range of commonalities, which link the organisations together can be broader than if there was a specific focus in the benchmarking project. The networking allows the drawing together of benchmarking partners from a range of industries with a range of complexities, customers and organisational cultures. Table 2 provides one example of how commonalities can be used to select benchmarking partners.

The peer groups are all non-competitive and the objective is mutual gain, whereby organisations' representatives can be involved in frank discussion about current business processes outcomes.

When a peer group operates for over a four or five year period this facilitates the opportunity to continually review the components of best practice, update current rankings and explain to benchmarking partners how improvement has been achieved.

The Champions & Challengers Analysis and the benchmarking peer groups provide organisations with an opportunity to develop a strategic vision about supply chain management and then assist them in achieving that vision.

The first meeting of a benchmarking peer group details the activities that benchmarking partner organisations would like to benchmark. To identify current levels of performance across the membership base, the factors critical to supply chain success are listed. These factors as detailed in Table 3 are considered the components of best practice supply chain performance.

The critical success factors may incorporate up to 20 points. Each organisation ranks their performance on a scale 1 to 10; 10 being the best and 1 the lowest. This table becomes the reference point for the peer group over time.

Each of the components of best practice is explained and defined. Then key performance measures are developed for each component which becomes the objective comparison between benchmarking partners. This enables the subjective process of ranking each component to be clarified and reviewed through the use of the table of performance measures within the peer group.

When a peer group operates for over a four or five year period this facilitates the opportunity to continually review the components of best practice, update current rankings and explain to benchmarking partners how improvement has been achieved. The components of

best practice and the table of performance measures provide an ongoing monitoring device for all benchmarking partners.

One of the formal outcomes of the benchmarking peer group is to produce a best practice report. This is a very focussed document which includes each critical success factor. The information contained within this report for each critical success factor is the relevant policy the organisation wishes to pursue, the procedure relevant to achieve the stated policy, the disciplines in place to ensure the procedure is followed, the best practice outcome that is possible. The last item for each factor are improvement ideas to achieve the key performance measure target or best practice performance. In some instances this succinct report is linked with an organisation's quality system. The marriage is appropriate because the Quality System documents current practice within the organisation while the Best Practice Report identifies the best practice performance that should be pursued for each of the relevant processes.

The Champions & Challengers Analysis and the benchmarking peer groups provide organisations with an opportunity to develop a strategic vision about supply chain management and then assist them in achieving that vision.

Table 2: Commonality Chart

Company	Customer base	No. of items	Management style	Stage of logistics excellence	Distribution Network	Rank
A	Retail	1,000	Traditional	1	National	2
B	Industrial	10,000	Teams based	3	State	6
C	Mixed	5,000	Participative	2-3	International	5
D	Commercial	100	Traditional	2	National	4
E	Retail / Industrial	200	Participative	2	State	1
F	Mixed	50	Teams based	2-3	Mixed	3

Benchmarking Peer Group Methodology

An internal or external benchmarking peer group follows the steps detailed in Figure 7 Benchmarking Peer Group Methodology Chart. The benefits that flow to an organisation when adopting a methodology is included in Figure 8.

Key Supply Chain Process

One of the key areas to determine supply chain best practice is in customer service levels such as the delivery of ordered products in full and on time. Table 5 identifies each transaction in the order management process as well as the impact on overall probability of a perfect order.

Internal Benchmarking Peer Groups

The Champions & Challengers analysis across a number of internal sites can be a starting point for an internal peer group. Face-to-face peer group meetings can then develop a table of performance measures and a best practice logistics report. Both these are very powerful tools to identify and transfer best practice across internal sites. The internal benchmarking peer group methodology provides the opportunity for members to work on the business rather than in the business.

At some stage questions are raised about whether the internal best practice is equivalent to external best practice. The best internal site can benchmark with

external partners to answer this question. This provides the necessary feedback loop to confirm whether the internal focus was equivalent to external best practice. The external benchmarking focus provided an opportunity to set stretch targets for a range of the key performance measures.

Benefits Of Benchmarking Peer groups

The benchmarking peer group program delivers significant benefits to partners, including:

- Quantifying best practice logistics
- Understanding, and believing in the strategic direction of logistics
- Improvement of logistics processes such as order management, sales and operations planning, employment selection, etc
- Management and cultural change.
- Reduction in costs.

The potential benefits of an internal benchmarking group are varied. A transport group consisting of five transport managers have meet for over twelve months and have stated benefits including asset utilisation improvements to cost reduction and cultural change. One fleet utilisation improvement flowed simply from another internal manager detailing one approach to moving trucks to another location. The asset utilisation saving was quoted at \$360,000 per annum.

Table 3: Ranking of Critical Success Factors

Components of Best Practice	COMPANY RANKING				
	AAA	BBB	CCC	DDD	EEE
Appropriate use of technology (RF, EDI)	6	8	5-6	7	5
Efficient use of HR resources	7	6	6-7	6	7-8
- training	9	7	6-7	6.5	5
- communication (cross functional)	9	9	4-5	6	8
Service level to customer	7.5	8	7-8	7-8	7
Standard operating procedures	10	5	6-7	7	6
- best practice procedures	8	5	7	6-7	5
Low cost	6	6	6	6	7
Unit cost appreciation	8	2	2	2	3

Legend → 1 = poor, 10 = excellent

Table 4: Table of PEER GROUP Performance Measures

Performance measures		AAA	BBB	CCC	DDD	EEE
1. Customer service						
1a. Delivery in full and on time						
(i) By order	1995-6	45%	45%	83%	91%	58%
(ii) By case/unit	1995-6	97%	93%	94%	94%	92%
2. Logistics Costs						
2a. Total logistics costs / total no. of orders (\$/order)	1995-6	\$220	\$408	\$79	\$109	\$463
2b. Total logistics costs / no of cartons (\$/unit)	1995-6	\$2.39	\$3.68	\$0.71	\$1.03	\$7.67
2c. Total logistics costs as a % of sales	1995-6	9.0%	4.1%	7.0%	5.1%	4.0%

The benefits, which benchmarking peer group members have identified, can be segregated into three areas: quick fixes, tactical improvements and strategic opportunities.

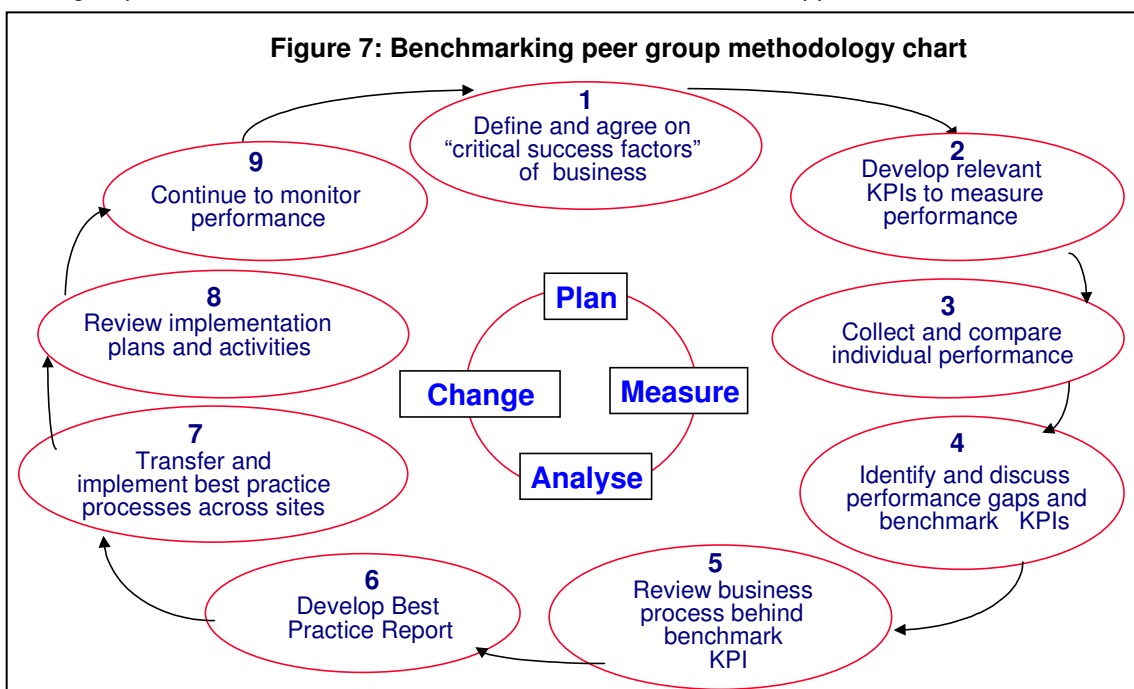
Another improvement has been the removal of spare tyres from trailers. This has been discussed over the years, but has never been tested. One peer group member piloted this approach. The financial benefits of increased payload significantly outweighed the costs when a flat tyre occurred. The annual savings were estimated at \$60,000 per annum.

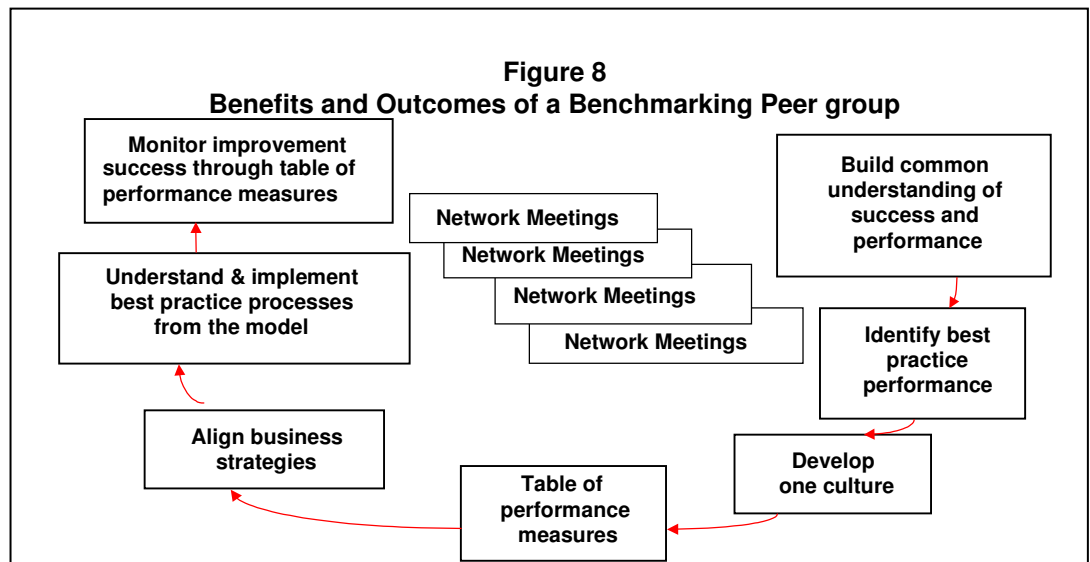
The internal peer group also provides the opportunity to set a national approach and deploy a consistent strategy. One example was a national contract for tyres where the supplier was charging individual areas different prices for the same tyre. Another national initiative from the peer group was the expensing rather than capitalising of all tyres when a new piece of equipment was purchased delivering a tax saving. The benefits which benchmarking peer group

Members have quoted through the meeting evaluation process can be segregated into three areas of quick fixes, tactical improvements and strategic opportunities.

The following are areas quoted by peer group members in the quick fix category include.

1. A changed management style by learning from other peer group members who are your peers. Through face-to-face discussions and the comparison of KPIs, peer group members learn that different management styles deliver different outcomes. Members cannot help but review their own personal style and consider what is being achieved in their organisation. For example one peer group member decided to physically move location, following a review of his command and control approach.





A focus on empowering people who were capable of much more has delivered an improved financial position and a happier, more content workforce. The manager changed from an operational focus to a strategic one, where now working on the business is seen as more important than working in it. The other management style change comes from opening up an organisation through the benchmarking process. As the cooperative culture of the peer group evolves members realise that the more they divulge the more likely other

peer group members can improve their operation. Peer group members provide solutions that they have developed.

2. Site visits link the face to face desktop discussions and the key performance measure comparisons. For example one organisation introduced work performance teams after they learnt about their development and management from another peer group partner. Another example is using customer order entry people to collate customer perceptions.

Table 5
The Probability of a Perfect Order

Steps	Order Management Transaction	Example	
		Error Free Transaction	Probability of Perfect Order
1	Customer correctly identifies requirements	99%	NA
2	Customer correctly communicates to supplier	99%	98%
3	Supplier accurately understands requirements and enters information correctly	99%	97%
4	Supplier has whole order available	95%	92%
5	Supplier picks order and prepares documents correctly	99%	91%
6	Supplier despatches order on time	99%	90%
7	Carrier delivers whole order on time	98%	89%
8	Customer receives undamaged goods	99%	88%
9	Customer accurately records and stores goods	99%	87%
10	Customer receives accurate invoice and pays it correctly	98%	85%
PROBABILITY OF PERFECT TRANSACTION (a)			85%(b)

(a) Delivery of order in full, on time and accurate paper work.

(b) This is calculated by multiplying the transaction probabilities down the page (eg. $0.87 \times 0.98 = 0.85$).

(c) To calculate your company's probability to a perfect order, multiply performance by transaction.

Source: Adapted from Figure 10-11, *Improving Quality and Productivity in the Logistics Process – Achieving Customer Satisfaction Breakthroughs*, AT Kearney, Inc., Oak Brook, Illinois: Council of Logistics Management, 1991.

An organization with a sophisticated customer service measurement technique used an annual survey approach and also weekly surveys of various customer segments. When a customer would call to place an order a window would drop down in front of the order entry person based on a sampling technique that would ask 3 or 4 questions to the customer about a previous order. Questions like whether that order arrived in full, on time, with an accurate invoice and whether the customer was happy overall with the supplier's performance. The key was that the customer did not perceive this as a customer survey but as a personalised service issue. After this particular site visit a number of the benchmarking partners developed a similar technique of collating customer perceptions about service.

3. Improved scheduling of vehicles and improved cost control. One company quoted savings of \$100,000 through the reduction of tyre costs.

4. Peer group discussions and comparisons provided the opportunity to introduce key performance indicators. This was achieved by benchmarking the key performance measurement systems of the peer group members. Each peer group member exchanged their current performance measurement system with other peer group members and from this exchange; some peer group members developed an improved performance measurement system.

5. A heightened awareness of appropriate benchmarks relevant to negotiations with suppliers. One example was a tyre supplier who was supplying an organisation that had a current tyre cost of 9 cents. The supplier was offering the customer an improvement down to 8 cents. Because of involvement in a transport benchmarking group this customer was aware of organisations achieving as low as 4 cents. The benchmarking peer group allowed each organisation to negotiate a much better deal with suppliers.

The tactical benefits of the benchmarking groups included:

1. Enabling the definition and understanding of best practice across and within the industry. This process assisted with the setting of realistic targets and also removal of complacency in some organisations that perceived themselves as best.

2. Define and fine-tune the enterprise agreement process.

3. Developed strong relationships with long term benchmarking partners. This very significant development allowed various peer group partners to pick up the phone and speak to relevant partners who could provide an instant solution. This enabled them to find a quick fix solution on a day to day basis.

4. Understanding functional and process management.

5. Breakdown cultural, state and regional barriers within an organisation.

6. Experiencing a shorter time frame for the implementation of radio frequency technology. In one benchmarking group five of the benchmarking partners intended to implement radio frequency technology within the warehouse over the next three years. One benchmarking partner who used this technology offered other benchmarking partners the opportunity to send groups of the warehouse workforce to work at the benchmarking partners warehouse for a day. This provided an enormous impetus for the implementation phase because it overcame many of the cultural issues, which the existing workforce had concerning the use of radio frequency technology.

The long-term strategic benefits of the benchmarking peer group quoted by benchmarking partners include:

1. A changed culture of the business

2. Identification of the need for a different organisational structure. One organisation identified the need for a logistics function to manage inventory across the organisation. They identified a need for a cross functional focus of the sales and operations planning process.

3. The benchmarking peer group is a unique forum that allows each partner to understand intimately the dynamics operating in other companies. Membership assists you in improving your own management performance in all decision making areas.

4. Involvement in a benchmarking group also led to a higher profile within the company of the need for supply chain

Leading organisations consider benchmarking to be an investment in long-term profitability.

management. It also provided a level of comfort for the senior logistics managers in relation to their direction detailed in their strategic logistics plan.

5. In some instances the benchmarking process identified the need to re-engineer.

Benchmarking As An Investment

Benchmarking can be resource hungry improvement technique if applied inappropriately. A senior manager or process manager would need to allocate about one day per month if involved in a benchmarking peer group.

Alternatively some organisations opt for the quick fix option, which may involve simply one other benchmarking partner and a simple site visit and an exchange of information available within the organisation. This type of benchmarking process may only require a couple of days from start to finish.

In contrast some organisations start the benchmarking process by an international study tour. These may be up to 4 to 8 weeks in duration and can cost anything up to \$50,000. To be successful they require significant planning prior to the study tour to ensure that there is focus and understanding of what will be benchmarked.

Benchmarking partners should be contacted prior to any visit to focus their attention on the area to be benchmarked, preferably with some exchange of key performance comparisons. In fact this performance comparison can be used to select organisations to visit while on the study tour.

Benchmarking the customer order management process for a small organisation could involve up to 13 person days in training, planning and mapping the current process, 8 person days to select and benchmark with partners, 7 days to analyse performance gaps and build an implementation strategy. This would equate to about 28 person days with implementation occurring over the short to medium term.

In many organisations the benefit of the benchmarking are questioned. However in an environment where global competition exists, the pursuit of best practice through

the use of the benchmarking process will become a day to day requirement for most organisations. Leading organisations consider benchmarking as an investment in long term profitability.

Setting Targets

The objective of any benchmarking process is to set realistic targets that can be achieved through improved process performance. Understanding the current performance of a process by comparing it with other organisations that have common processes is one method to understand the process and the constraints that will impact on process improvement. Constraints could involve systems, culture or other areas in the business. For example if leadtime is benchmarked but is currently constrained by a batching system within the order management package then this must be highlighted as something that will change in the medium rather than short term. If as an organisation this system may be replaced within a two or three year period then alternative improvement opportunities should be pursued.

One of the many management challenges is to ensure that the setting of targets provides motivation to perform. If these targets are set too low then it may equate to a lost opportunity. However, set too high, the target may become de-motivational. Target setting should become a dynamic process within the organisation as the understanding of the process evolves. Benchmarking has a significant role to play in this.

The establishment of relevant targets is essential for organisational improvement.

Tips About Benchmarking

Avoid information overload in your benchmarking project by staying focussed. In a networking environment there is a need for a structured formal process because there is the potential to be side tracked. Another challenge is to understand your current process constraints and work within these. If the information system will not be replaced for two years then work around this constraint in the benchmarking project.

Another consideration is the comparisons of key performance indicators. Will they be used by senior management as a

Benchmarking process when applied appropriately allows management to determine why something is better by using a comparison of key performance indicators as a facilitator of the improvement focus.

disciplinary tool, or will they be used to simply understand the business better?

This is a management decision. How these performance measures are used within the business will impact on the success of the benchmarking project and the development of a set of performance measures which are comparable and valid among benchmarking partners. The same performance measures could also be used as part of a bonus scheme or to create competitiveness within one organisation across a number of sites. Finally, the key performance measures could be deployed to build cooperation across the site, to focus attention on the pursuit of a best practice operation.

Conclusion

In this paper the benchmarking process was described including information about what and how to benchmark. The development and application of a logistics best practice self-assessment tool was reviewed. The Champions - Challengers Analysis was used to compare a firm's performance to best practice. The benchmarking peer group program was explained as a way of assisting companies to implement improvements.

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Benchmarking process when applied appropriately allows management to determine why something is better by using a comparison of key performance indicators as a facilitator of the improvement focus.

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