

LeanBenchmark™

This Lean benchmark report has been prepared:

for: **Stephen Clark**

by **Chilstone**

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SAMPLE REPORT

And relates to the following industry sector:

Manufacturing

Introduction

This Report is unique to your organisation; the content is driven by the answers you have provided and benchmarks your organisation's performance across the 8 Lean competencies:

1. Lean Leadership
2. Customer Focus
3. Empowerment
4. Communication
5. Core Processes
6. Plant and Equipment
7. Support Processes
8. Supply chain

The main purpose of this Lean benchmarking tool is to compare your organisations processes and Lean competencies with others in a similar industry or business sector.

Essentially, this is a "snap shot" of your Current Performance, compared with others. This resulting gap analysis clearly highlights the future Potential Performance and the most appropriate focus for improvement.

This report includes comparative data and provides a structured framework of recommendations to help you stay ahead of the competition and move your organisation to the next level.

Once you have reviewed this report you may wish to discuss this further with a Lean specialist, to arrange this please email advice@leanbenchmark.org.

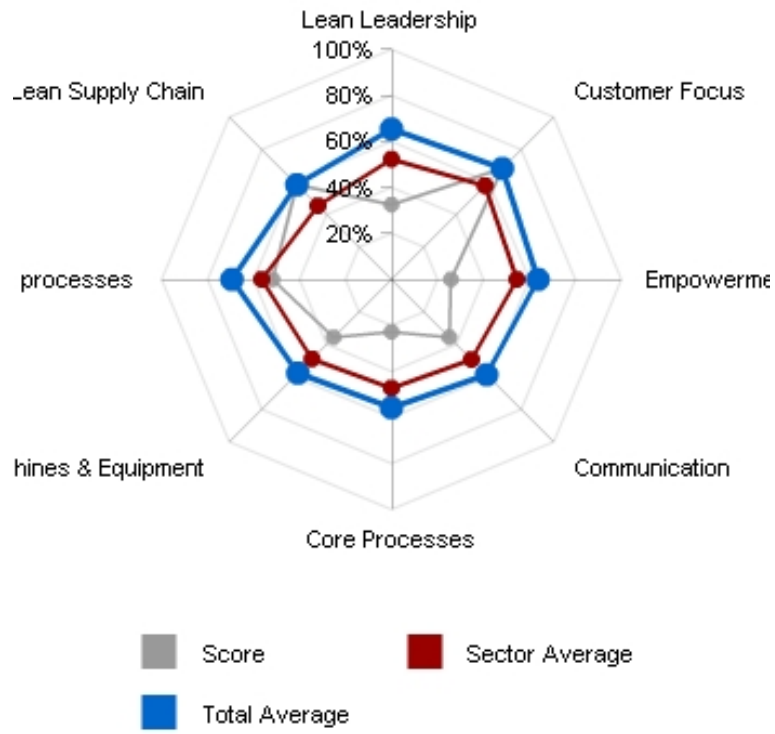
Key for your answers:

- 1** Not Found anywhere in this company
- 2** Found in some areas
- 3** Commonly found, but not in the majority
- 4** Very typical, some exceptions
- 5** Found everywhere, no exceptions

Overview

Categories	Score		Sector		Total	
All Categories	45.5%	FAIR	51.5%	GOOD	45.6%	FAIR
Lean Leadership	35.7%	FAIR	52.2%	GOOD	48%	FAIR
Customer Focus	75%	GOOD	57.5%	GOOD	50.1%	GOOD
Empowerment	28.6%	FAIR	54.7%	GOOD	46.8%	FAIR
Communication	39.3%	FAIR	49.2%	FAIR	43%	FAIR
Core Processes	25%	POOR	47.3%	FAIR	41%	FAIR
Machines & Equipment	39.3%	FAIR	49.1%	FAIR	42.3%	FAIR
Support processes	57.1%	GOOD	56.5%	GOOD	51%	GOOD
Lean Supply Chain	64.3%	GOOD	45.2%	FAIR	42.7%	FAIR

Overview (cont)



Overview (cont)

Summary

The results show that your organisation has mastered some of the key elements of Lean. However, there is no room for complacency; many of your competitors are continually seeking ways to take performance to the next level.

Recommendations

1. Review the detailed recommendations made in the Lean benchmark report. Share this report with key people within your organisation; agree how best to take this forward. Use the benchmark data to compare performance with others in a similar sector; identify the focus for improvement and critical next steps which make best use of your time and resources.
2. See how others have successfully implemented Lean. Best Practice visits provide an excellent source for ideas, motivate improvement teams and can help maintain the momentum of your Lean journey.
3. An independent, impartial assessment of current Lean performance can help to refocus existing continuous improvement activities or can be used as a way to kick start a new change programme. An external Lean specialist could carry out a Lean benchmark audit across your organisation and provide valuable feedback and advice. Even the most experienced Lean practitioners can always learn from others. Best Practice visits to Lean exemplars in other sectors may also generate new ideas for your team.

Lean Leadership

The organisation's vision, mission and goals are written down; the objectives are measurable and are understood at all levels	2	POOR
Staff can accurately describe the organisation's objectives and how their job contributes to the achievements of those objectives	2	POOR
There is a Lean strategy and the organisation's goals are linked to the implementation of Lean principles	2	POOR
Senior Managers are regularly seen on the shop floor discussing current issues and improvement programmes with production teams	4	GOOD
A non-blaming culture, fact-based, process driven atmosphere exists throughout the organisation	3	FAIR
The roles, responsibilities and accountabilities of team leaders, supervisors and managers are clearly set out and published	2	POOR
Promotions, pay and rewards are decided in a fair and structured way. All staff understand how their Team Leader or Manager rates their performance	2	POOR
Total	35.7%	FAIR

Lean Leadership - summary

Effective leadership is absolutely vital for any organisation seeking to implement Lean principles in a sustainable way. From the scores you have given it is clear that there is still much for you to do in this area before embarking on a Lean journey.

Recommendations

Get the Lean knowledge

Run a Lean awareness workshop for your Management team and team leaders, it's important to draw from someone who has had practical experience implementing Lean. Lean leaders must master Lean thinking to the point where it becomes second nature.

Create a future Lean vision

The Managing Director and senior leadership team can work together to develop a clear future vision and measurable objectives for the business.

When this is communicated effectively, employees understand the direction of the business and are more motivated to see how they can contribute in a positive way.

It is vital to get the whole leadership team on board when developing an organisation's vision, strategy and objectives. Asking an impartial specialist to facilitate this work enables organisation's to tap into the entire knowledge and capabilities of a team.

Capitalise on your Resources and Capabilities

Identify the tangible, intangible and human resources that exist within your business today. Consider different ways these resources can be used along side the capabilities that you have within the organisation to create an advantage over your competitors.

Develop a Balanced Score Card for your business

A new approach to strategic management was developed in the early 1990's by Drs. Robert Kaplan (Harvard Business School) and David Norton. They named this system the Balanced Scorecard, this is a Management system (not only a measurement system) that enables organisations to clarify their vision and strategy and translate this into action.

It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results. When fully deployed, the balanced scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise. The balanced scorecard views the organisation from four perspectives. To develop metrics, collect data and analyse performance relative to each of these perspectives:

1. The Learning and Growth Perspective
2. The Business Process Perspective (Use Lean principles)
3. The Customer Perspective
4. The Financial Perspective

Deploy your Lean strategy

Strategy Deployment is a process that ties senior leadership into enterprise-wide business-improvement practices. Strategy Deployment originated with 'Hoshin Kanri' which was a core part of the leadership tools or practices of TQM (Total Quality Management). Use this annual planning process to develop enterprise wide improvement plans, and then include this within a monthly review process.

Begin your Lean journey - the 6 step process

STEP 1

Identify a change agent

This must be a leader who will take personal responsibility for the Lean transformation.

STEP 2

Get the Lean knowledge

As previously mentioned, it is important to draw from someone who has had practical experience implementing Lean. The internal change agents must master Lean thinking to the point where it becomes second nature.

STEP 3

Identify and communicate a crisis

Few if any businesses will take the necessary steps to adopt Lean thinking across the board unless they are facing a crisis.

STEP 4

Map the value streams

Begin with the current state map to show how material and information flows now, then draw a leaner future state of how they should flow - then create an timed implementation plan.

STEP 5

Practice Kaizen

Begin as soon as possible with an important and visible activity such as a rapid improvement workshop or Kaizen Blitz.

STEP 6

Develop a Lean enterprise

Implement Lean techniques as part of a system, not as isolated programs. As soon as Lean momentum is established, expand the scope. Link improvements in the value streams and move beyond the shop floor to office processes.

Encourage Managers to be more visible on the shop floor (Gemba walks)

In Lean manufacturing, the idea of a Gemba walk (Gemba = workplace) is that the problems are visible and the best improvement ideas will come from going to the Gemba. The Gemba walk, much like MBWA (Management by Walking About) is an activity that takes Management to the front lines to look for waste and opportunities to practice Kaizen or practical shopfloor improvement.

Customer Focus

The proportion of business with each customer (or demand rate for each pathway) is known at all levels in the organisation	4	GOOD
Daily quality and delivery performance to the end customers is known at all levels in the organisation	3	FAIR
Clients regularly visit the operational work areas within our organisation and can speak directly with any member of staff	5	WORLD CLASS
The key actions being taken to improve quality performance are documented and understood at all levels in the organisation	4	GOOD
There is an expectation and focus at all levels to achieve 100% delivery performance and meet customer demands	4	GOOD
Supplier performance is measured in terms of quality and delivery and is acceptable	4	GOOD
Suppliers are made aware of the end customer's specifications and delivery requirements. Where appropriate, contracts reflect a joint commitment to meet targets	4	GOOD
Total	75%	GOOD

Customer Focus - summary

From the answers you have given it is clear that focusing on your customers is a priority within your organisation. There is no room for complacency however as there are still opportunities to improve in this area.

Recommendations

Invite customers and partners

Encourage your Sales and Marketing teams to bring customers to visit your operation. This can be very motivational for shop floor and operational employees. Engage with the local community, invite others to experience the progress you are making on your Lean journey. Be proud of what you have achieved, but humble enough to seek feedback and suggestions from those you invite.

Customer facing secondment roles

Operational employees rarely have the opportunity to engage with customers. Look at ways in which operators can get a better understanding of customers needs and expectations. If you provide an installation service or off site warranty work you could consider seconding operational employees to these customer facing positions. Exposing your people to the reality of demanding customers will raise their awareness of the true challenges beyond the four walls of the site.

Mystery shoppers

Are your customers really satisfied? Mystery shopping is a wonderful Management tool which enables you to more fully understand how customers feel about their last experience with your organisation. It involves a 'mystery' shopper contacting your organisation, behaving and acting like a normal customer. Once this is completed a feedback report is produced which allows you to review your team's performance.

Empowerment

The Standard Operating Procedures and Visual Works Instructions have been developed by the team leaders with input from other staff as necessary	2	POOR
A Skills Matrix is in place, this is used to encourage flexible working. Staff are trained, and can if needed work in different a role related to their main job function.	3	FAIR
Team authority and accountability is clearly defined, boundaries are set but team decisions are not superseded by senior management	2	POOR
Training is offered to all employees including coaching in the use of Lean techniques. Training records are kept up to date and training effectiveness is reviewed	2	POOR
Everyone in the organisation is encouraged to be actively involved in continuous improvement teams to identify and eliminate waste	3	FAIR
There are regular formal gatherings (Continuous Improvement meetings) where improvements are proposed, discussed and progressed	2	POOR
There is a budget for Lean. Authority for expenditure on process improvements is delegated to teams	1	POOR
	Total	28.6%
		FAIR

Empowerment - summary

The empowerment score suggests that your organisation has some way to go before it can capitalise on the benefits of a fully empowered workforce.

Employee involvement and team empowerment enable people to make decisions about their work. This increases loyalty, fosters ownership and enables employees to make decisions about their jobs. It also encourages employees to take more ownership for their work and accept responsibility for their results.

Recommendations

Develop a strong team ethos

Effective teams are created with a mission or purpose in mind. This purpose or mission should be expressed in the form of a written team charter. The idea of using teams to solve problems and achieve results is based, in part, on a concept that the collective brainpower of a team far exceeds the ability of any Manager.

Team building

Running a team building workshop is an excellent way to break down any barriers that exist within a team. It develops mutual respect and understanding and encourages each team member to value contributions of their colleagues.

Top five tips for effective team building

1. Communicate goals clearly; employees look to Management for basic company goals. When those goals are not clear, disappointments will erupt as employees try to define goals themselves. By clearly laying out goals, everyone begins in the same place and understands where the business is going.
2. Define responsibilities; workplaces run best when everyone clearly understands their responsibilities. Provide each employee with a distinct definition of his or her own responsibilities, both individually and as it relates to group projects. This eliminates confusion over who is accountable for what, and allows employees to relate without struggling over responsibilities.
3. Provide training; make sure that each member of your staff is trained and equipped to complete the tasks at hand; divisions surface when one member is unable to perform necessary duties. Provide ongoing training, pair two employees to learn from each other. Try to ensure it is an equal teaching relationship, where both

employees are gaining new skills.

4. Empower; give decision making power to the people working on the project. Give them the authority necessary to get their jobs done, but observe the process to make sure they're rising to the challenge. Trusted employees can make decisions without fearing consequences, and good employees will value that trust and seek to make the best decisions.

5. Reward the team; provide rewards to the team. Whether it's an award, a pizza lunch, or some other treat, providing the whole team with an encouraging reward for hard work will build team spirit and bring your employees back in with renewed enthusiasm for their jobs.

Develop flexible multi skilled team members

Over specialisation of job duties is the enemy of productivity. In some situations, specialisation may be necessary, but it also can hamper what people can do.

A skill matrix is a simple visual tool, when correctly introduced it can be an effective way to get teams on board with a multi-skilling program.

Step 1

Identify and log all key skills required

Step 2

Establish skills level of each team member

Step 3

Establish the mix of skills needed from a business perspective

Step 4

Analyse Gap between Step 2 and Step 3

Step 5

Discuss the skills gap issues openly with the team; explain the business case for change and benefits of training.

Step 6

Conduct one to one meetings and develop individual training and development plans

Step 7

Track progress on the skills matrix using an LLI format

Communication

External and internal business performance data is readily available to all employees and updated regularly	2	POOR
Team performance data is collected and displayed close to each process by those responsible for the activity	2	POOR
Information Display Boards are visible throughout. Information includes; Training, Safety, SOP's, Quality, Cost and Delivery measures	3	FAIR
All staff understand the displayed information in their area and are comfortable explaining it to visitors	2	POOR
There are periodic (two way) communication sessions carried out by senior management cascaded through the organisation	3	FAIR
Senior Managers receive regular feedback from individuals and teams regarding lean activities and improvements implemented	3	FAIR
A 360 degree feedback process is used by senior managers as part of their personal development and to improve inter-personal relationships	3	FAIR
Total	39.3%	FAIR

Communication - summary

The score for communication shows that some of the key foundations for effective communication are not yet in place across your organisation.

Recommendations

Recognise the importance of effective communication

Poor communication is one of the most common criticisms employees have about the businesses they work for. Employees complain that they are given poor instructions; they feel uninformed about what is happening within the company and often feel that their views are unheard, unacknowledged, or even ignored.

Be consistent

Develop a structured communications plan

When introducing a change program such as Lean, it is vital that there are two way 'open' communication channels.

Regular team briefings should take place to encourage discussion; Managers must not dictate the changes. These team briefings should be used to air feelings, concerns and ideas and will need to be supported by some ground rules.

Team briefings should take place throughout the organisation allowing focus on different levels of issues. 'Top level' briefings should provide information on how the company is doing and the major challenges and changes in the business.

Weekly briefings held between Middle Managers and Supervisors will allow communication of issues affecting specific areas of the business. This should provide information upwards of key concerns or successes, and downwards of challenges and targets.

Daily meetings between supervisors and shop floor should focus on local issues affecting the performance measures for the area.

This cascade of communication will ensure that everyone is informed and, most importantly, that everyone has an opportunity to be involved in the issues and changes in the business.

Team display boards

Positioned in each team area, these communication boards bring together the most important information, relevant to each team in one designated area. Team Performance measures, updated daily or weekly along with an area to capture and progress improvement ideas are two vital elements to be displayed. Over time, a comprehensive set of information can be displayed including:

- Top Level Business objectives
- Skills matrix
- Quality measures
- Productivity measures
- Customer delivery performance
- Trained first aiders photos
- Team photos
- Continuous Improvement plan
- Improvement suggestions
- Team information

Further communication tips

Meetings are one of the most common, and useful forms of communication in any team. This is because a meeting can address almost any like / situation, and will fit both formal and informal occasions.

Some useful meeting formats:

- One to Ones; normally held weekly, these informal meetings between the Team Leader and each individual team member are ideal for motivating people, catching up on progress, and ensuring that any problems are identified and dealt with promptly.
- Full team meetings; these are held regularly (perhaps monthly, or alternatively, every 1 or 2 weeks) so that all team members are updated on each area or task. Team meetings are useful for identifying and addressing gaps or slippage in schedules, and for ensuring that all parts of the 'big picture' come together.
- Presentations; more formal affairs, presentations are often held to impart messages to key stakeholders such as the users, project sponsors, or shareholders to keep them informed and to maintain buy in.

Core Processes

The Value Stream is fully mapped, products and services are segregated into family streams	2	POOR
The Value Stream is regularly reviewed to identify improvements. Action plans are in place to reduce lead times and improve performance	1	POOR
Standard Operating Procedures exist for all core production / business process	2	POOR
Workplace organisation is clearly evident. Essential items are close to hand. All equipment, work stations and material holding areas are organised, clearly marked and free from debris. (5s approach)	2	POOR
Defective items are immediately detected. Remedial action is taken and the root cause is established using problem solving techniques. Poor quality never move to a downstream process.	3	FAIR
5S workplace organisation is sustained through regular audits. The 5S condition is evident across the organisation.	2	POOR
It is easy for a stranger to identify work content, material flow and current performance for any work area	2	POOR
	Total	25% POOR

Core Processes - summary

The score for core process suggests that, in Lean terms the organisation is fairly weak in this respect. 5S is often the best place to start.

Recommendations

Apply 5S principles rigorously across the organisation

5S is the process used to create a workplace suitable for visual control and is the basic housekeeping discipline for Lean, quality and safety.

To achieve and sustain a well organised workplace these 5 principles need to be fully implemented (many organisations fail with 5S as they stop after the second S)

Sort - Throw away what is not used

Set In Order - Locate what is used in the best place

Shine - Physical cleaning of the workplace

Standardise - simplify and standardise the above

Sustain - everyone participates, carry out regular audits

Create visual works instructions and SOPs

These are best created by the employees who are carrying out the operational tasks. By giving the teams the power to document their standard operating procedures it ensure that all steps in the process are identified and taps in to the tacit knowledge that they have built up over many years.

Visual works instructions are high on picture content and low on words and text so act as an excellent training tool where English is not a first language. An excellent tool also, to train new employees or temporary staff. Symbols highlight the standard work content, important quality checks and relevant safety / PPE instructions.

Standard visual works instruction templates are available and training for this is normally very practical and can be based on specific live projects.

Machines & Equipment

Work area layouts have been implemented to support a team-working environment and enable continuous (ideally one-piece) flow	2	POOR
Travel distances have been analysed and reduced by moving equipment and workstations closer together. Workstations are adapted to improve Safety and Ergonomics	3	FAIR
Error-proofing devices and methods have been developed to eliminate reoccurring quality defects within each process	3	FAIR
Key processes are equipped with audible or visual signals. These are either machine or manually activated and assistance arrives promptly when a problem is encountered	2	POOR
There is a process for monitoring changeover / set up times with a view to identifying improvement opportunities using set up time reduction methodology	2	POOR
When new equipment is purchased or existing equipment replaced, operator training is carried out and SOP's are updated	3	FAIR
Preventative maintenance activity is clearly defined and communicated for both maintenance and production employees. Compliance to this is tracked and recorded over time	3	FAIR
Total	39.3%	FAIR

Machines and Equipment - summary

The answers you have provided for Machinery and Equipment indicate a significant shortfall with this particular Lean competence.

Recommendations

Reduce breakdowns and machine down time

Introduce a Total Productive Maintenance programme (TPM)

TPM is an integral part of any Lean implementation programme where the process relies on machines to satisfy customer demand.

The aim of TPM is to strive for zero machine breakdowns, zero quality defects and improve productivity through preventive machine maintenance.

Create SOP's for Maintenance of equipment

Depending on the skill levels available, these can be created by the employees who are carrying out the operational tasks with the support of the local maintenance specialists or engineers.

Standard Operating Procedures (SOP's) for maintenance of machines and equipment need to include pictures to clearly showing the steps required to carry out the maintenance tasks. Again, it can be beneficial to use symbols on these instructions to highlight the most critical checks and specific quality/safety issues relating to the maintenance activity.

The most important point is to clearly identify the two separate areas of maintenance required:

- The regular (daily or weekly) checks carried out by the operators
- The planned maintenance tasks where specialist maintenance engineers are required.

Prevent defects through mistake proofing (Pokayoke)

Repairing damaged equipment and machine downtime can prove to be very costly. As part of the TPM programme it's worth spending time considering opportunities for implementing mistake proofing devices.

Examples of the of types of devices that are worth considering are as follows:

1. Guide pins, to ensure the parts can only be assembled in the correct way.
2. Light switches, that sense the presence or absence of a part.
3. Mistake proofing Jigs that detect defects immediately upstream.
4. Counters that verify that the correct number of parts or steps have been taken.
5. Checklists, that remind operators to do certain actions.

Reduce set up times **Set up and Changeover Reduction (SMED)**

This is one of the core lean tools. Set up reduction is generally considered as non value adding (from the point of view of the customer, furthermore it is the primary reason (or excuse) used to avoid reducing batch sizes. With long set up times the age old argument of 'Economical Batch Quantities' is used to avoid the move towards single piece flow.

The classical set up reduction methodology established by Shigeo Shingo is a proven way to reduce set up time. Again, it is absolutely essential this is done with the full involvement of the operators to ensure the most appropriate improvements are considered and changes are successfully introduced.

Note:

Internal activities = tasks that are done when the machine is stopped

External activities = tasks that are done when the machine is running

Step 1

Identify and classify internal and external activities.

Step 2

Cut and reduce wasteful activities such as movement, fetching tools, searching for paperwork waiting for instructions.

Step 3

Seek ways to maximise external activities (converting internal to external)

Step 4

Use smart engineering solutions to reduce time on the remaining internal activities such as toggle clamps, quick release nuts etc.

Step 5

Seek ways to minimise external activity time.

Support processes

Management and /or partners and key stakeholders present staff with clear unambiguous product /service specifications	4	GOOD
Up stream teams deliver clear unambiguous requirements in order for the right quality to be delivered	4	GOOD
Management commit the organisation to achievable quality and performance targets based on a full understanding of available resources and capabilities	3	FAIR
Support services (IT, Engineering, Facilities Management, Estates) provide the necessary information to allow work to be started and completed to the scheduled plan	3	FAIR
HR provides a performance management framework and offer support with both individual and team development & training. Roles and responsibilities are defined for all staff	2	POOR
New (or amendments to existing) products or services are introduced on time and to budget, specifications are clear and fixed	4	GOOD
Lean Accounting practices are in place. Finance provides unambiguous, useful information. All products/services are fully costed and where appropriate have a bill of materials	3	FAIR
Total	57.1%	GOOD

Support Processes - summary

The score suggests that you have made some progress to enhance your supporting processes, but more work is needed in certain key functions.

Recommendations

Pursue Lean HR practices

Use Visual Management to support staff with specific learning difficulties such as Dyslexia.

A little known fact is that around 10% of any workforce has some form of learning difficulties such as Dyslexia. Furthermore it is likely that only 2 or 3% of these people are aware.

Lean, 5S, Visual management and Visual works instructions are all excellent tools for communicating operational information and instructions. Presenting information in this way will also help you meet your obligations under the DDA (Disability Discrimination Act)

Performance management

Be clear about how good performance is calculated, communicated and linked to incentives. Very often employees go home not knowing (or caring) whether or not they accomplished their goals.

Team development

Any organisation that is based on individual performance alone will struggle to get the team behaviours needed for lean success. Develop 'High Performance teams' invest time by running facilitated team building workshops focused around the Lean activities and objectives.

Roles and responsibilities

These must be absolutely clear, start with the Managers then continue with Team Leaders and operational personnel.

Communicate

A Lean communication plan must go beyond posters, emails and regular newsletters. Walking the shop floor, talking with the team and showing visible support and encouragement is absolutely vital. If you feel you are over

communicating then you probably have it about right.

Celebrate success

Lean requires a tremendous amount of hard work. Recognise key milestones in your Lean journey and keep teams motivated by simple 'coffee and cake' type celebrations.

Gemba Walks

Encourage management to be more visible on the shop floor (Gemba walks).

In Lean manufacturing, the idea of Gemba is that the problems are visible and the best improvement ideas will come from going to the 'Gemba'. The gemba walk, much like MBWA or Management by Walking Around, is an activity that takes management to the frontlines to look for waste and opportunities to practice gemba kaizen, or practical shop floor improvement.

Lean Accounting

Lean Manufacturing and traditional accounting conflict in several ways. These conflicts can often produce considerable difficulties. The roots of this problem lie, largely, in the application of accounting and metrics.

Allocate overhead costs based on support activity for each product

The primary culprit in distorted product costs is overhead allocation and the primary effect is to undervalue many products and overvalue others.

Consider Activity Based Costing (ABC) for each Lean flow line

Activity Based Costing attempts to identify the factors that truly drive overhead cost. It then allocates overhead costs with formulae that reflect these "cost drivers". For example, in Purchasing, the true activity cost probably relates to the number of line items on the BOM for each product. In Engineering it might relate to the level of engineering resources required to support the product process.

Challenge the financial paradigm within your organisation:

- People other than accountants need to understand the reports that emanate from accounting systems. Challenge them to bring clarity to their reports.
- Often Finance is responsible for large, complex, wasteful accounting processes requiring huge amounts of non-value work. Involve the Finance team in the Lean improvement activity and encourage the Finance team to begin a 'Lean Office' improvement project map their processes and begin to eliminate non value added

activity.

- Building inventory as an 'asset' is generally accepted accounting principles, but in Lean it is a wasteful profit killer. Involve the finance team in the Lean activity, ensure they understand and appreciate the lean benefits of a 'make to order' rather than 'make to stock'.

Create a lean 'War room' for Lean teams

This can act as a focal point for the Lean teams. It is best located centrally to the operational activity so that it is visible to the whole workforce.

It is a living display of the current situation. Everyone can understand what problems exist and the plans to improve things.

Lean Supply Chain

The procurement strategy has been established considering business risk and relative spend	3	FAIR
A structured supplier selection process exists which supports the organisations drive towards reducing its carbon foot print	4	GOOD
Supplier performance is measured objectively in terms of quality, delivery, price and service	4	GOOD
Materials and stock items are managed effectively, shortages are rare and the stock reduction program results in an increase in stock turns each year	4	GOOD
All stock items have been ABC classified and are appropriately managed using Kanban, Water spiders , consignment stock, Vendor managed Inventory, JIT principles	3	FAIR
We regularly benchmark our internal capabilities and where appropriate reassess our make versus buy policy for non-core activities	3	FAIR
Outsourcing decisions are taken considering the Total Cost of Acquisition	4	GOOD
	Total	64.3%
		GOOD

Lean Supply chain - summary

You are making progress and you demonstrate some of the better supply chain practices

Recommendations

Procurement Strategy and Supplier selection

When selecting suppliers, pricing and commercial criteria are often the primary focus. For strategically important suppliers, it is necessary to assess potential business risks and benchmark their capabilities in a more structured way. This assessment should consider the following:

Potential risks

- Financially stability in the long term
- Level of dependence/alternative supply options
- Ability to meet current and future capacity demands
- Reliability of logistics and delivery capability
- Geographic location

Commercial aspects

- Price competitiveness
- Quotation behaviours
- Co operation and flexibility
- Green credentials and carbon footprint impact
- Policies including CSR, Quality, Safety, Environmental

Business Resources and Capabilities

- Management capabilities
- Design and technological capabilities
- Annual investment in R&D
- Annual investment in training

Supplier performance

Cost, Quality and Delivery are recognised as primary performance measures.

Monitoring the progress of the important supplier development activity is often forgotten.

Product Quality measure

Absence of quality defects. Conformance to technical specifications and damage during shipping.

Delivery measure

On time, in full and complying with quality specifications

Supplier development measure

As well as driving day to day performance effective supplier development strategies include a programme of continuous improvement where the rate or degree of improvement can be measured for example:

- Order cycle time reduction from order placement to receipt of goods
- Reduction in parts per million defects
- Improved on time delivery
- Price reduction
- Reduction in new product development time from concept to volume production

Supplier management costs

The cost of managing suppliers is often not that visible and can be lost. Taking a snap shot of time spent dealing with pricing or quality issues, rebates, inventory management and Invoice accuracy will highlight the true cost to your business.

ABC classification

This ensures suppliers are given the right focus based on pre determined quantitative parameters. Commonly used ABC parameters include Sales Value, Stock Value, Number of stock lines and Stock holding costs. An analysis of stock based on selected criteria

By carrying out a Pareto analysis based on annual quantities it is possible to assign stock items to a given class and establish the most appropriate materials control and replenishment approach.

For example:

- A = 75 to 85% (Just in time line side deliveries)
- B = 85 to 98% (MFP/ERP system)
- C = 98 to 100% (Kanban or twin bin system)

JIT

The closer a business can get to operating in a true just in time (JIT) situation, the more responsive it can be for it's customers. This also reduces the amount of capital tied up in excess stock. The basic premise of JIT is to have just the right amount of inventory available at your production line to meet customer demand, no more, no less.

Before working with suppliers to establish JIT 'line' side deliveries a number of other key factors must be addressed.

- A Lean, flow based production process needs to be in place
- JIT production planning must consider the production process capability, changeover times, changeover patterns, and the true lead time for each product. Having a clear understanding of the demand patterns is essential.
- Flexible process
- Demand based material's pull system.

Kanban

A Kanban is the classic signaling device for demand based pull systems and materials control.

The Kanban is calculated based on Daily demand, Lead time, Safety stock and Kanban size.

There are a number of reasons why Kanban's fail:

- There are inadequate visual controls in place to show how the Kanban is performing.
- There is no process to ensure that Kanban cards and containers are being circulated correctly.
- There is no process in place to regularly review the Kanban system, so it falls down due to lost cards or inappropriate stock levels.
- Lack of effective training.

Vendor Managed Inventory (Consignment Stock)

VMI is a service whereby the supplier assumes responsibility for stocking and maintaining inventory levels of the supplied goods.

The vendor then issues a monthly consolidated invoice for all items used.

The stock is therefore in the possession of the customer, but is still owned by the supplier.

VMI can be an effective way to reduce stock outs in the supply chain.

There are three common issues with VMI that need to be addressed at the planning and development stages:

- Unexpected demand changes by the customer are not discussed earlier enough with the supplier.
- The supplier has a spike in its overall demand and is unable to replenish stock.
- Poor day to day communication at an operational level between customer and supplier.

Integrate ERP systems with Lean

ERP is a set of business processes, enabled by computer technology, designed to integrate all functional areas within an enterprise to optimise the use of resources used to accomplish tasks. Whereas Lean is a strategy that focuses on the elimination of all waste to minimise the amount of resources used to accomplish tasks.

Synchronise Kanban and ERP

Not all suppliers have the foresight to plan ahead; furthermore they cannot easily predict significant fluctuations in demand.

As Kanban's assume 'we can get what we need when demand, it is important to schedule long lead time items in order to be able to have or get them through the supply chain on demand as needed.

Find more ways to merge the benefits of ERP and Lean to service customers effectively and efficiently.

Apply the 7 wastes and Lean principles to ERP and MRP systems

Over production - only schedule what is needed based on customer demand and MRP needs.

Waiting - reduce the scheduling cycle, plan and schedule daily or by shift.

Inventory - eliminate safety stock and make-to-order.

Transport - Use lean techniques.

Motion - minimise the scheduling effort, minimise or eliminate labour and production reporting.

Over processing - eliminate the use of sales forecasts by adopting JIT and Kanban.

Defects - maintain an accurate database through regular cleansing of BOMs and Roots

Outsourcing

The need for out sourcing can be triggered for one of a number of reasons. Cost, Capacity constraints, Technology or skills needs are often key drivers.

Whatever the driver the right decision can only be made if the Total Cost of Acquisition (TCA) is considered.

TCA can be calculated considering the following:

- Unit Cost
- Purchase currency and exchange rates
- Minimum order quantity
- Delivery costs and freight handling charges
- Storage costs
- Packaging costs
- Tooling and maintenance cost and depreciation
- Supplier management, travel cost, communication
- Potential supply disruption costs

In addition there are a number of other considerations.

- Range of products/service offered
- Company reputation/image
- Financial stability
- Geographic location/time difference
- Language compatibility
- Management and team capability and culture
- Willingness and ability to use IT systems
- Environmental credentials such as ISO14001
- Quality credentials such as ISO9001

About Leanbenchmark.org and KPS

Leanbenchmark is a service provided by KPS Ltd. Maintaining the quality and integrity of the Leanbenchmark database is fundamentally important to both us and our customers. Users can be confident that the comparative data can to the best of our knowledge relied upon. The data base is maintained and managed by highly experienced Lean specialists at KPS and is regularly checked ensuring the contact information provided is accurate.

Through our ongoing commitment to constantly improve and deliver exceptional quality and service, we have developed trusted partnerships with a number of long standing clients.

We work closely with a number of organisations in both the private and public sector including the Government sponsored Manufacturing Advisory Service and the NHS.

As a member of the British Quality Foundation established in 1993, KPS Ltd uphold the principles of the Foundation whose mission is to be a leader in helping organisations of all kinds to improve their performance and achieve sustainable excellence. The British Quality Foundation (BQF) is Europes largest corporate membership organisation promoting performance improvement and excellence.

We are constantly looking for ways to improve the quality of service to our customers. Should you have any feedback or suggestions as to how KPS can improve we would welcome your comments by email feedback@leanbenchmark.org or by telephone +44 (0) 1843 292681

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