

Lean and the Balanced Scorecard

Dr. John Blakemore.
Blakemore Consulting International,
L57 MLC Centre, Martin Place Sydney 2000,
L9 Avaya House, 123 Epping Road, North Ryde NSW 2113
The Mansions, Causeway Bay, Hong Kong China

Introduction

The principles of Lean manufacture developed from Total Quality management (TQM), Just in Time (JIT) and Statistical Process Control (SPC) and customer focussed initiatives, based on the balanced scoreboard, can be applied to all functions of all businesses. These principles can be used to produce a ***Lean and Balanced Scoreboard***, which can enable the business to focus and prioritise its activities to the maximum benefit of the customers, employees, suppliers and shareholders. This is a way of linking strategy with capability and minimising waste and maximising the use of capital and labour. These measurements should be regarded as top priority in determining the capability and performance and future strategies to determine the directions for continuous improvement and improved competitiveness.

General

The future doesn't just happen, ***we create it***. Globalisation and the digital revolution has accelerated the pace of change and the need to be more innovative more quickly. IT systems have created a tool to supply accurate digital data instantaneously from the point of sale. A balanced system of measurement is therefore necessary to enable the organisation to take the initiative as more and more players emerge on what remain as uneven playing fields. To respond to all these changes, we must be quicker, more imaginative, more creative, honest and more scientific in our approach to all business decisions.

Hence measurement systems must be fast, accurate and provide data that can be used to continuously and quickly monitor the underlying strategy and match it with the system capability to enable organisations to alter course quickly if necessary and so minimise risk of failure and maximise the chances of success. God does play dice.

The most effective way of doing this is to use the ***Lean Balanced Scoreboard***.

The Future

Future business change will occur even more rapidly than now. It is essential that all businesses are prepared for such continuous change occurring at an

accelerated rate. Already quantum computers are on the drawing board and global accounting and financial rules are being prepared to control global business more effectively, equitably and honestly. All this points to ever increasing competition and a greater emphasis on digital data and its use and advantages....Bill Gates has called it [business@thespeedofthought](#). This is **e-business**. The vertical organisation structure will be replaced totally by a vertical/horizontal matrix.

Based upon these there are a number of management concepts that we can use to hone our competitive advantage, concepts that will help us prepare for a seamless structure based on teamwork, innovation and flexibility.

The winners in the future will be those that can harvest the advantages of the new digital technology and learn quickly and so take advantage of the new opportunities we create. This is the world of the knowledge workers.

Establishing, Measuring and Managing the Lean Balanced Scorecard.

In the past the financial measurements (profit and loss, balance sheet and cash flow) were the main board level measurement and management tools. Clearly they are not enough.

The themes needed are financial, operational, and reflective of the strategies and capabilities of the organisation in HR, innovation, marketing sales, operations, and the total supply chain. The usual financial themes are:

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- Revenue Growth
- Productivity Improvement
- Capital Utilisation

These need to be supplemented by a broader set of measurements. The key is the buying decision which if understood can lead to increased customer satisfaction, profitability, and growth.

Business is about quality, cost and delivery, no matter what the service or product. Lean systems digital thinking must be practised in all parts of the business.

All major strategic elements of the business must be measured and integrated into the business plan. These should in turn be balanced by the capability of the organisation and the goals set for its improvement.

Processes and Systems

Processes that service the customer most effectively are characterised by maximising the value added. Such processes when linked together in a chain form systems with a high degree of effectiveness and in turn create Just-In-Time relationships. This means that the capability of the process and system must be understood and measured.

Dr Deming supported this statistical approach when he revolutionised production and manufacturing processes in Japan after the second world war. This gave rise to the quality revolution and Total Quality Control (TQC) and later Total Quality Management. The ISO quality system tried to emulate this but did not understand the importance of prevention but it is slowly catching up. In the meantime Toyota has dropped the ball because they failed to pass on the learning of Dr Deming from the old generation to the new

The continuous drive to improve and innovate has led to what is called six sigma processes.

The Supply Chain

Any organisation is only one step in a total chain and the chain is only as good as it's weakest link. This means in turn that we all are a customer and we all have a customer no matter who or where we are in the chain.

Lean thinking rules apply to all steps in the chain and to the links between the partners in the chain. With a lean system, organisations can respond to the ever changing demands of the marketplace with minimum disruption and cost. This leads to an innovative adaptable team based culture.

The digital revolution creates a wealth of new opportunities to get closer to the customer and develop special relationships which can be managed more efficiently.

For the private sector this means there is a sharper focus on the strategic use of information and the increased return on capital employed (ROCE). For the public sector it means a faster turnaround of jobs, less queuing time and reduced costs.

Innovation

Successful organisations in the future will focus more and more on innovating process, product, service and the organisation structure itself.

The special relationships between product and process innovation need to be explored and related to core functions in the organisation.

Development of the Lean Balanced Scoreboard.

Outline

Firstly the ***VISION AND STRATEGY*** must be defined. These should be linked to the major issues controlling the Lean Strategy.:

- Aims and Objectives
- Measurements
- Targets and Timelines

The issues are:

1. Marketing and Sales (Customer Focus).

2. Operations (Systems and Processes, Internal and External) The development of the systems processes and organisation's capability to deliver the defined strategic outcomes must be linked to the customer.

3. People (Learning and Education, Training, Performance) In order that the vision may be achieved, the ability to change and develop will depend on our ability to enhance our skills and knowledge.

4. Innovation,(Product, Processes and Systems),

5. Financial Outcomes (P&L, Balance Sheet, Cash Flow) The final analysis for private companies is the creation of shareholders wealth. For government organisations it is satisfying all the stakeholders but focussing on cost reduction and speed.

Measurements.(some suggestions)

Lean Scoreboard

No	Function	KPM	Y/N
1	Marketing and	1. Quality Cost, On Time %	
	Sales	2. Market Share by Product and Segment	
		3. Hit Rate	
		4. No of Customers (New, Lost)	
		5. Opportunities Created	
2.	Operations	1. Run % by Machine(%crewed h)	
	(e.g. Manufacturing)	2. Cycle Time	
		3. Downtime	
		4. Preventive Maintenance	
		5. Total Waste by Machine	
3	People	1. Basic Training %	
		2. Advanced Training %	
		3. Absentee Rate %	
		4. Average age employee	
		5. % with direct replacement	
4	Innovation	1. No new Products per Year	
		2. Success Rate new products	
		3. No New Processes introduced	
		4. R&D Programs completed	
		5. R&D Programs started	
5	Financial	1. P&L, BS, CF	
		2. Key Financial Ratios	
		3. Inventory Days	
		4. Days to produce accounts	
		5. Total GM, OP, EBIT % Sales	

The above concept provides a framework for continuous innovation and improvement. If applied and continuously developed and understood it takes strategic planning to a new level.