Lean Accounting

Diagnostic Questionnaire of Accounting, Control, & Measurement Capability

BMA Inc..
100 Springdale Road, #110, Cherry Hill, New Jersey 08003
Tel: 609 239 1080 Fax: 610 455 1491 Email: info@maskell.com Web Site: www.maskell.com

ACCOUNTING, CONTROL AND MEASUREMENT QUESTIONNAIRE

The purpose of this questionnaire is to help the company assess where the accounting and measurement methods stand with regard to their support of the company's transition to a lean environment.

There are six major categories:

- Performance Measurement
- Value Stream Costing
- Measuring Financial Benefits
- Managing Value Stream Profitability
- Eliminating Transactions
- Value Stream Management

Tel: 609-239-1080
Email: information@maskell.com

ACCOUNTING, CONTROL AND MEASUREMENT QUESTIONNAIRE

INSTRUCTIONS

i. Read all four statements carefully--the left hand statement defines 1-2 on the scale; the second statement covers the 3-4 range on the scale, the third covers 5-6 and the right hand statement 7-8 on the scale. Please note: the statements and the numerical ratings do not precisely align. Some judgment is needed.

ii. Honestly evaluate the present position of your organization in terms of the four statements by marking an **X** (one of 1, 2, 3, 4 5, 6, 7, 8) over the number which best represents your present position.

If you are using a computer, change the number you choose to **X** in the "Current" row.

If you are doing this analysis manually, write the number that corresponds to your choice under "Current" at the right.

iii Decide where you would like your organization realistically to be in the foreseeable future by marking an **O** on the scale (one of 1, 2, 3, 4, 5, 6, 7,8). This goal should be challenging yet realistic.

If you are using a computer, change the number you choose to **O** in the "Future" row.

If you are doing this analysis manually, write the number that corresponds to your choice under "Future" at the right.

To illustrate this and the previous point, the following diagram shows a typical and valid response:

Current	1	X	3	4	5	6	7	8
Future	1	2	3	4	5	O	7	8

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CATEGORY: Performance Measurement

Subcategory/ Goal	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Alignment of Company Strategy and Lean Goals Shift from efficiency based goals and measures to goals and measures tied to lean	The company goals are primarily financial. These financial goals are developed in detail by department in the annual budget, with a focus on meeting the budget line-item cost goals. Lean is viewed as a manufacturing program. The lean goals of flow, pull, perfection and value creation are not reflected in the goals and measurement systems	We have aligned our performance measures to company strategy and lean goals and have eliminated all unnecessary measures and meetings to discuss the measures.	We have introduced driver-based performance measurements throughout all value streams. We have linked the performance to the development of continuous improvement targets for both cost and performance.	We are using statistical method such as "Design of Experiments" to understand the factors that cause variability in value stream results and to quantify the risks inherent in our business.

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Performance Measures	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Shift from historical results-based measures to predictive, causal based measures	The company's primary performance measurement is done by the accounting department. We make extensive use of variance analysis, financial ratios, and other financially based measures. We are very concerned about productivity and used measures like direct labor productivity and equipment utilization. We report these measures monthly.	We have introduced lean performance measurements into the production the cells. These measures are focused on the production of the cell on a day-by-the -hour basis to ensure that the cell manufactures to its TAKT. Goals and targets for the cell are established both in financial and non financial terms related to our lean strategies and objectives	We have introduce value stream-level and corporate level measures all linked to our strategies and goals for lean and integrated with the cell-level measures. Our continuous improvement teams use the value stream measures to drive their continuous improvement efforts.	We have incorporated statistical analysis into our performance measurement process. We regularly establish control limits for all measures and establish our targets to meet our Six Sigma objectives. In so doing we have significantly reduced the variability of the value stream and cell outputs.

Current	**1**	**3**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Current

Future

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CATEGORY: Performance Measurement								
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***	
Empowerment and Learning Shift from the use of performance measures as an evaluative tool to one that empowers employees for continuous learning and improvement	We use performance measurement to measure the impact of departments and individual in contributing to company profitability. Our system is based around our annual budgets, and rewards and recognition are focused toward meeting the cost targets in thus budgets.		We have educated management and the work force on the use of performance measurement in a lean environment		We support continuous improvement with financial and non-financial performance measurements that drive improvement and continuous learning		We use value stream cost management pro-actively to create and deploy available capacity	
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Current
Future

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CATEGORY: Value Stream Costing									
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***		
Value Stream Organization Shift from organizing by functional department to organizing by value stream	The company is organized by functional department and reporting of performance is based on this organization structure.		We have clearly identified all value streams, including the organizationa units, functions, and accounting information to be included. We have assigned value stream managers, we have current and future state value stream maps that are used to guide business change, and we have value stream performance measurement boards in place.		We manage the business by value streams. Almost everyone is assigned (either directly or as a matrix) to a specific value stream. There is considerable cross-training so that all tasks can be performed by value stream people. There are some remaining *business sustaining* departments that do non-value stream work. We report all costs and performance information by value stream.		We have either reorganized the company along value stream lines and have largely eliminated functional departments, or we have establish an effective matrix organization providing clear value stream management. Value stream managers are key to our operations and our lean improvement.		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Product Costing Shift from allocation of overheads to product costs to summary direct costs using features and characteristics	We calculate product costs individually by exploding the material and labor costs from the bills of materials and routings, and by applying overheads. We allocate overhead costs to products using overhead rates based upon production labor hours. We calculate standard costs for each item and report variances against actuals.		We still use the standard costs for financial reporting and inventory valuation. But we have create Value Stream Cost reporting (summary direct costing of the value stream) and use this information for value stream management and decision-making.		We have eliminated standard costing. We cost the value stream not the products. Value stream costing is used for financial reporting. Value stream costs are reported weekly using the visual Box Score on the Value Stream Performance Board. Business sustaining costs and other external costs are no longer allocated to value streams or products.		Value stream costing (summary direct costing of the value stream) is widely used. When the cost of individual products are required we use *features & characteristics* costing. There is wide use of Target Costing to establish the *customer value* and *target cost* of the products. These, together with the average actual value stream product costs are powerful drivers of improvement for the value stream continuous improvement team.		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	

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CATEGORY: Measuring Financial Benefits

Subcategory/ Goal	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Continuous Improvement Shift from hiding waste in financial statements and standard costs to making disclosure of the cost and drivers of waste a primary goal to support continuous improvement	The financial reports are organized by resource line item and reflect waste through the cost of these items versus budget. Budgets and standards are based on historical performance and frequently include reserves for waste and inefficiency	We have established value stream continuous improvement teams. These teams use the value stream costing and value stream performance measurement information to drive their improvement efforts. We have developed a suggestion program bring to light and implementing many small improvements.	Continuous improvement is now routine within the value stream. We have a well-developed *value stream cost analysis* model that shows how capacity is used and how the costs flow through the value streamThe value stream continuous improvement team uses the performance measurements, the value stream cost information, and the Box Score to drive their improvement work.	Continuous improvement is now a way-of-life within the organization. Almost everybody is actively involve in week-by-week continuous improvement projects. We have an on-going process of visually reporting waste elimination, performance improvement and cost impacts, freed up capacity and achievements against lean targets. These are posted on the VS Tracking Board.

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Subcategory/ Goal	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Financial Benefits of Lean Changes Shift from assessing the benefits of lean changes based upon cost reduction and efficiency to evaluating the extent to which capacity freed up by lean is put to productive uses	Lean is generally viewed as a manufacturing program to increase efficiency and reduce cost. Consequently the success of lean is evaluated by the extent to which cos reduction is achieved. Frequently there is disappointment with results achieve because cost have not been reduced.	We calculate the benefits of lean improvement projects using the information provide in the current and future state value stream maps. We use this information to evaluate how the freed up resources and improved working capital can be deployed.	We regularly monitor the achievement of actual benefits of lean changes. As we identify the potential for eliminating waste and making capacity available, we create strategies for the profitable use of this capacity.	We use the financial benefits information related to freed up resource capacity in our Sales, Operations, & Financial Planning to drive business strategy

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Current

Future

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CATEGORY: Managing Value Stream Profitability									
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***		
Decision Making Shift from evaluating key decisions by looking at product line profitability using standard costs to evaluating the impact of the decision on value stream profitability, focusing on the true costs of the value stream.	The costing system supports the calculation of the values of inventory and cost of sales of the products sold. As such we rely on this data to provide accurate pictures of the profitability of the products sold. We use this data extensively in setting product prices and in evaluating the performance of operating units.		We have established Value Stream Costing (summary direct costing of the value stream). We have also developed a Value Stream Cost analysis to understand the current state costs of the use of productive, non productive and available capacity. As part of this analysis we have identified the costs of waste for each product family. We use this information for making key decisions.		All routine decisions are made using lean decision-making methods based upon value stream cost information. These include profitability of orders or quotes, make/buy, new product introductions, product rationalizations, etc. Standard costs are never used for these kinds of decisions. We have a *capital acquisition* process that supports lean thinking.		We use value stream profitability & cash flow for all key decisions. We use value stream cost analysis and Box Scores to assess strategic decisions. We use product features and characteristics to link customer needs to product features. We use target costs to determine allowable costs and we use value engineering to evaluate the trade-offs of cost, quality, and function during the design stage and on-going production.		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Customer Value and Target Costing Shift from product management to the management of customer value as the driver of business strategy	Cost are determined from internal standard cost information and are not related to customer value. Profitability margins are calculated from sales prices and standard costs.		We have provided education to everyone with regard to the definition of customer value and how we intend to provide it. Our Sales & Marketing people have agood understanding of lean thinking and the importance of customer value. They have begin to gather *voice of the customer* data.		We regularly use cross-functional, value stream Target Costing. We have developed target costs for each value stream, product family, and customer group. We use target costs to set allowable product family costs and costs of product features. All new products or major product line changes go through target costing.		We use target costs and value engineering cooperatively with suppliers and partners. We provide measurements beyond the goals of lean as incentives for to employees, suppliers and partners experiment, innovate and customize our product offerings to fulfill customer needs		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	

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CATEGORY: Eliminating Transactions

Subcategory/ Goal	*Traditional*	*Developing a Framework*	*Managing by Value Stream*	*Lean Business Management*	
Accounts Payable & Procurement Shift from high volume and procedurally complex processes to minimum transactions with built in controls	All orders of materials and supplies are documented with a requisition and a purchase order. All materials and supplies received are checked and documented. We perform a 3-way match to ensure the accuracy o invoices prior to payment authorization. High value purchases require senior management authorization. AP is controlled within the finance department.	We have made great strides in simplifying accounts payable. AP credit cards are widely in use for all small purchases, eliminating most of our P.O.s and invoices. We have issued blanket purchase orders for key materials and have started to identify and certify strategic suppliers. We have begun to voucher for payment on receipt of materials.	Most of our key suppliers deliver directly to the production line based on kanban pull from the line. Suppliers deliver frequently (daily or twice weekly) and are vouchered on receipt. We have completely eliminated the three way match in accounts payable. Most materials are expensed to the value stream on receipt or on issue to the shop floor.	Materials are either paid on receipt when the materials are expensed to the value stream, or they are paid fo by backflushing when the products are shipped. All payments are electronic and there is no AP process.	***Current***
					Future

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Accounts Receivable Shift from high volume and procedurally complex processes to minimum transactions with built in controls	We mail order acknowledgments to customers on receipt of a purchase order. We mail invoices to the customer each time we ship a product. We collect cash from late paying customer by phone calls and collection agencies.	We have greatly simplified our accounts receivable and order fulfillment processes by encouraging blanket sales orders from our key customers and by invoicing directly from shipping.	We have made steps toward eliminating the need for invoicing our key customers by encouraging them to pay us upon receipts of the materials. Increasing we are delivering daily to customers' production lines based upon kanban orders.	We have eliminated all regular accounts receivable processes. Customers wire payments into our bank accounts for materials delivered based upon their usage in products shipped to their customers.	***Current***
					Future

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

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CATEGORY: Eliminating Transactions

Subcategory/ Goal	***Traditional***	***Developing a Framework***	***Managing by Value Stream***	***Lean Business Management***	
Authorizations and Sign offs Shift from requiring signoffs and reviews to authorize transactions to building controls into the process itself	We require sign offs on all requisitions and purchases of supplies and materials. All transactions and journal entries affecting the financial statements require review and sign-off by an appropriate member of management, depending on the size of the transaction. Larger items require multiple levels of approval.	We have pushed the authority for making expenditures down in the organization and have strengthened the budgetary accountability of departmental managers. Consequently we have been able to eliminate most of the multiple approvals required. For recurring transactions we have established arrangements with suppliers, thereby providing blanket authorization.	We have pushed most of the transaction authority down to the value stream managers and have eliminated the requirement for prior approval except on major capital expenditures.	We have pushed most of the transaction authority down to the value stream managers and have eliminated the requirement for prior approval except on major capital expenditures.	***Current***
					Future

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Month End	Each operating entity is required to prepare a full package of month-end reports for submission to corporate accounting. Preparing the package is complex and cumbersome. We often do not have the financial reports complete until 2 to weeks into the next month.	We have greatly simplified the monthly closing process by standardizing our chart of accounts and cost centers across all operating units. In the process we have eliminated accounts in which the costs are not material to the company as a whole. We have been able to eliminate much of our month end accruals due to the simplification of our AP, AR and inventory processes.	We are now closing the books on a quarterly basis due to increased operating controls implemented through lean and the greatly reduced inventory levels. We have adopted enhanced balance sheet and P&L planning through our Sales, Operations, & Financial Planning process. We have reliable month-end financial information ahead of the month-end.	We have automated all month-end and quarter-end processes, allowing preparation of financial statements without closing the books at any time during the month.	***Current***
Shift from monthly closings of the books requiring multiple accruals and adjustments to automated quarterly closings requiring few accruals and adjustments					
					Future

Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

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CATEGORY: Eliminating Transactions

Subcategory/ Goal	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Material Costs Shift from multiple postings of materials to accumulate product costs to a simple accrual of value stream material costs	All production costs are tracked and controlled using a job costing system to monitor the amounts of materials used. The actual quantities of materials used are posted to a work order at each operation. We make extensive use of variance reports to monitor the actual materia costs against the standard costs .	We now have updated and improved the accuracy of our bills of materials and routings so they now accurately reflect the material content in our products at each stage of production. This has allowed us to backflush all material costs through the production process to relieve inventories at each stage	Material costs are tracked in one of three ways. We either backflush the finished products as they are completed or shipped; this together with scrap reporting provides the material costs. Or we expense the materials to the value stream on receipt from the suppliers. Or - if the inventory level is high - we expense the materials to the value stream as they are issued to the shop floor.	We expense the costs of material directly to the value stream at the time of purchase. There is very little inventory in the plant and the cycle times are so short that materials are used as they are purchased.

Current	1	2	3	4	5	6	7	8
Future	1	2	3	4	5	6	7	8

Subcategory/ Goal	Traditional	Developing a Framework	Managing by Value Stream	Lean Business Management
Labor and Overhead Costs Shift from multiple postings of labor to recording labor and overhead directly to cost of sales as incurred	All production costs are tracked and controlled using a job costing system to monitor the amounts of labor used. The actual quantities of labor used are posted to a work order at each operation. We make extensive use of variance reports to monitor the actual labor costs against the standard costs .	We have eliminated detailed labor tracking and job-step tracking. The updated and improved accuracy of our bills of materials and routings allows us to automate the assignment of labor through backflushing using our standard labor costs and actual production. We have eliminated the reporting of labor and overhead variances in our costing reports.	We charge labor and overhead costs in summary directly to the value stream instead of applying them directly to production.	We charge labor and overhead costs in summary directly to the value stream instead of applying them directly to production.

Current	1	2	3	4	5	6	7	8
Future	1	2	3	4	5	6	7	8

Current

Future

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CATEGORY: Eliminating Transactions								
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***	
Inventory Tracking Eliminate all tracking of inventory through the production process	We keep detailed track of our inventory--raw materials, work in process and finished goods. We enter transactions for receipts, issues, adjustments, and miscellaneous usage of materials. Every year we do a full physical inventory to help get our stock figures accurate and to satisfy the auditors. Often there are many adjustments to our inventory.		We have replaced the annual physical inventory with cycle counting. We use the cycle counting as a way to discover the root causes of the errors created in the inventory balances in addition to maintaining the accuracy of the balances themselves. In this way we are gradually eliminating the error creating problem in our processes.		We track a lot less items on inventory. Many of our raw material & components are expensed on receipt and no longer tracked as perpetual inventory. We have implemented kanban-style pull control of inventory through-out the value stream. We have eliminated cycle counting because we have good visual controls of inventories i the value stream.		We have largely eliminated inventory tracking from our computer system.	
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Current

Future

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CATEGORY: Value Stream Management									
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***		
Rewards and Recognition Shift from performance incentives based on cost reduction to delivery of value	We measure and reward based on achievement of targets established in our annual budget. Our department managers receive salary increases and bonuses based upon meeting and/or exceeding these targets in their departments		We have aligned business and personal goals for delivering value and have eliminated the incentives that are opposed to lean thinking		We use team-based incentives (based upon financial and non-financial measurements) for achievement of value stream goals and targets		We have implemented a gainsharing program to fairly reward everyone financially for the achievement of lean goals		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Role of Finance People Shift the role of finance from detached evaluators of the lean results to integral members of the value stream teams	The role of the accounting function is to ensure the maintenance of internal controls and the accuracy of information presented in the financia statements. Consequently our accountants analyze financial information and they do not get involved in operational projects other than to provide financial information.		We have assigned finance people to work on specific value stream assignments. They have become experts in that area of the business. At least one finance person has been trained in the techniques of statistical quality control as a Six Sigma Black Belt.		All finance activities and reporting have been aligned by value stream. Finance people have moved physically and organizationally in the value streams as team members. They play a significant role as change agents for value stream improvement and innovation.		Finance people are fully integrated into the value streams and are integral components of the value stream teams.		***Current***
									Future
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	

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CATEGORY:	*Value Stream Management*							
Subcategory/ Goal	***Traditional***		***Developing a Framework***		***Managing by Value Stream***		***Lean Business Management***	
Budgeting and Planning Shift from managing by departmental budgets to managing by value stream, driven by the sales and operations planning process	We have extensive and detailed budgeting for every department and cost center, and for every account and sub-account. This way we can plan and control our expenditures. We have a formal annual budget development process in which each department manager develops his own budget for approval. Budget vs. actual reports are prepared monthly by department and reviewed in meetings.		We have greatly simplified the annual budgeting process by eliminating most cost centers and accounting codes from the items that need to be budgeted. We have begun to implement a formal Sales, Operations, & Financial Planning process each month, and we plan by value stream.		We have eliminated department budgets. We create monthly (periodic) rolling budgets for each value stream from our Sales, Operations, & Financial Planning process. Our budgeted values include both financial and non financial performance. We regularly include value stream targets for elimination of waste and for increasing available capacity through the application of lean initiatives.		The company is managed by value streams both operationally and financially. The monthly rolling budgets are key to the on-going continuous improvement of the value streams and the overall business.	
Current	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Future	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Current
Future

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