

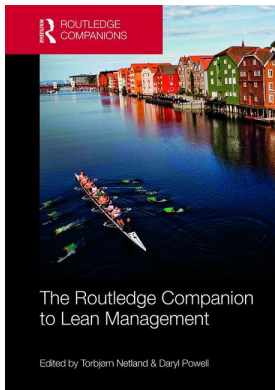
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14

LEAN ACCOUNTING

Brian H. Maskell

Introduction

Companies seriously introducing lean methods throughout their organizations soon bump up against their accounting systems. Traditional accounting methods are actively anti-lean (Åhlström and Karlsson, 1996; Maskell et al., 2011). This does not mean those systems are bad and wrong; it just means that they were developed in the 1920s to support high volume, mass production-style management.

The purpose of *lean accounting* is to provide a complete operational and financial management system that is consistent with, and motivates, lean thinking throughout the organization. The thinking and methods of lean management are in many ways the opposite of traditional operational methods (Åhlström and Karlsson, 1996; Maskell and Kennedy, 2007; Kennedy and Widener, 2008). In order for lean companies to thrive, they need accounting, control, measurements, and decision-making processes that actively motivate lean change and lean thinking, and require a lot less wasteful work.

The Challenges of Traditional Accounting in Lean Environments

There are a number of ways that traditional financial and management accounting undermines lean progress within organizations.

First, conventional accounting is usually reported monthly and often several days after month-end. This cadence is too late to take appropriate action to solve problems and improve processes.

Second, the reports contain complex accounting methods like allocations, absorption, and variances. Very few people in the company understand these methods. For people to make effective use of financial reports, the reports must be timely and immediately understandable to everybody.

Third, the traditional financial and operational measurements actively push back against the thinking and methods of lean. Traditional accounting undermines lean because it is designed for high-volume operations with few variations, and focuses on maximizing the efficiency of the people and the equipment. For example, a very potent anti-lean measurement is the “overhead absorption variance.” This measurement focuses company managers and employees on efficiency instead of customer value. This leads to large batches, long lead times, high

inventory, shortages, expediting, and crisis management. Lean has different objectives, and focuses on single-piece flow, customer value, and the productivity of the entire value stream. A recent academic study by Krishnan et al. (2011) showed that the 2008 bankruptcies of General Motors and Chrysler Corporation were impacted badly by overhead absorption measures. The car plants continued to manufacture “economic” order quantities, spending huge amounts of money, and making thousands of cars that nobody wanted to buy, until the companies eventually ran out of cash.

Fourth, the use of standard product costing to make decisions inevitably leads to poor decisions. A standard cost is not a “real” number. It is a collection of allocations and assumptions, and cannot be seen as representing the ever-changing operational processes and costs. The true cost of a product varies according to any particular day’s volume, product or service mix, available capacity, and the current issues and problems within the organization. Standard cost decision making leads to poor pricing, wrong make-buy, the impeding of lean improvement, and inappropriate capital purchases, outsourcing, etc. because the actual financial impact of the decision is obscured by the spurious allocation of unrelated overheads.

Fifth, conventional costing tracks people’s “actual” work time and efficiency. This information is reported through a series of cost variances. These measurements drive behaviors incompatible with lean because they focus on the individual products and production jobs instead of seeing the real financial impact on the whole value stream. In addition to the complex and opaque information, this reporting leads to thousands or millions of wasteful transactions, reports, meetings, reconciliations, and anti-lean leadership.

Sixth, traditional accounting does of course fully comply with all the internal and external reporting rules. However, the month-end close requires many adjustments to match the standard cost information to the actual costs and inventory valuation required by these reporting rules.

Finally, conventional accounting requires a great deal of work for the accountants, the managers, and operations people. In most companies, the accountants are not able to use their skills to support the business operation or strategic decision making because their time is largely spent on bookkeeping and financial reporting. Similarly, managers, supervisors, and support staff are required to waste a lot of time grappling with financial reports that are inapplicable to the lean methods of business.

What is Lean Accounting?

Lean accounting is two-sided (IMA, 2006). On the one hand, companies can apply the lean principles to the accounting work itself, with the purpose of driving out waste in the accounting processes. On the other hand, the accounting function should be organized and managed in a way that supports the lean enterprise. This chapter is mostly addressing the latter.

Applying Lean to the Accounting Processes

A good starting point for lean accounting is to apply regular lean methods to the company’s current accounting processes. This eliminates waste in the accounting and finance areas and it frees up people’s time to work on the introduction of more significant lean accounting methods. Applying lean to the company’s current accounting processes also enables the financial people to learn lean thinking and methods in a practical way within their own area.

The usual places to apply lean improvement in the accounting processes are month-end close, accounts payable, accounts receivable, inventory management, purchasing, payroll, etc. These

improvements and time saved enable the accounting and finance people to address the more fundamental changes required by lean accounting.

Lean-enabling Operational and Financial Controls

Instead of using the traditional financial controls like variance analysis, overhead absorption, etc., lean accounting strengthens the operational controls within the company's business processes (Carnes and Hedin, 2005; Maskell et al., 2011; Fullerton et al., 2013). This is done through a careful selection and design of the performance measurement system. Attributes of good performance measures aligned to lean accounting are as follows:

- Having focused measurements at every level of the organization: senior management level, value stream level, and cell/process level.
- Linking all selected measurements at every level to the company's strategies. It is typical to have measurements at the company level, the value stream level, and the front-line cells and processes where the operational and support work is done.
- Minimizing the measurements to the "vital few" so as to provide clarity of purpose and exposure of problems, waste, and improvement opportunities.
- Using measurements that are simple and straightforward so there is no ambiguity or confusion. Unlike traditional financial statements, lean accounting statements are designed so that everybody in the company can immediately understand them. The information is straightforward and on a single page.
- Presenting all measurements visually, because this is the best way for people to recognize issues, understand causes, and take action. Visual measurements also enable team leaders, managers, and executives to see and understand the current performance of the business. This is particularly important when senior people are engaged in gemba walks.

Furthermore, companies should use visual management to show the reasons for problems and what actions are being taken to resolve them, or improve the process. At the cell/process level, these will be the immediate, current issues and their resolutions. At the value stream level, these will show the actions required to continuously improve the value stream's performance. At the company level, the measurements show how well the strategies are being achieved.

Value Stream Accounting

Value stream accounting is the primary financial reporting within lean accounting. Most companies using lean accounting have their primary financial reporting at the value stream level. The value streams for a lean business are mini companies within the company. They are typically focused on a family of products or services with similar flows. The value stream manager is fully responsible and accountable for the success and profitability of these products or services. Value streams can also be focused on particular markets rather than product families.

A lean accounting firm has frequent income statements for the value streams. These financial reports enable the value stream manager and his/her team to control their costs, revenues, and profits, and to take action quickly when financial problems arise. In order to control the processes and continuously improve, the value stream teams need to understand three things: the operational measurements, the use of their capacity, and the financial results of their work.

The income statement for each value stream is created (typically) weekly and shows the revenues, costs, profitability, and other relevant information like inventory value and return-on-sales,

for example. This financial information is gathered directly from the company’s financial systems and shows the real revenue and spending for that week. There are a number of different ways to show the information. For example, some companies want to show the value of materials used that week, while others want to see cost of what was purchased this week.

The income statements are typically reviewed within the value streams each week at a stand-up style meeting. A short, focused, standardized meeting where the value stream revenues and costs are reviewed and problems identified. These problems can then be resolved short term and/or long term. In addition, potential improvements and opportunities are brought to light, prioritized, and put into action. Further, the value stream managers within the company come together for a second meeting to review each other’s income statements, and initiate activities across multiple value streams, or to help each other make progress.

It is common for the income statement to show, for example, 13 weeks of information so that the value stream managers and their teams can see trends, seasonality, and abnormalities in the financial results. It is common for the value stream income statement information to be supported with graphs or other visualization of the results.

For month-end close, the weekly financial statements for all value streams are summed across the whole company and for the number of days in the month (see Figure 14.1 for an example of four value streams reported at month-end close in a typical manufacturing company). This same information is used for the month-end financial reports, both internal and external. These lean accounting financial reports comply fully with *generally accepted accounting principles* (GAAP) and other external requirements. There are some adjustments required. For example, corporate overheads may be added, exchange rate gains/losses, etc.

When value stream accounting is first used, it is common for the financial numbers to be highly variable from one week to the next. The first task for the value stream team is to work to stabilize and control the spending, and then work to improve the revenues, costs, and profitability. It is the frequent reporting and the clear information that enables the value stream team to achieve exceptional results.

	OEM VALUE STREAM	SYSTEMS VALUE STREAM	SPARE PARTS VALUE STREAM	NEW PRODUCT DEVELOPMENT	SUPPORT	TOTAL
REVENUE	\$1,039,440	\$1,009,246	\$346,690	\$0	\$0	\$2,395,376
Materials	\$424,763	\$339,810	\$100,449	\$84,953		\$949,975
Direct Labor	\$189,336	\$123,648	\$15,622			\$328,606
Support Labor	\$87,662	\$67,616	\$8,299	\$40,772	\$53,056	\$257,405
Machines	\$88,800	\$27,750	\$12,500			\$129,050
Outside Process	\$36,571	\$17,731	\$0	\$12,588		\$66,890
Facilities	\$15,450	\$10,300	\$25,422	\$3,090	\$9,270	\$63,532
Other Costs	\$1,933	\$2,899	\$5,512	\$483	\$1,933	\$12,760
TOTAL COSTS	\$844,515	\$589,754	\$167,804	\$141,886	\$64,259	\$1,808,218
VALUE STREAM PROFIT	\$194,925	\$419,492	\$178,886	-\$141,886	-\$64,259	\$587,158
Return on Sales	19%	42%	52%	0%	0%	25%

Opening Inventory	\$1,186,035
Closing Inventory	\$963,148
Inventory Adjustment	-\$222,887
Corporate Overhead	\$83,838
Exchange Rate Gain/Loss	-\$3,220
NET PROFIT	\$277,213
Return on Sales	11.6%

Figure 14.1 Example of income statement for four value streams at month-end close

Box Score and Decision Making

The *box score* is a primary document for lean accounting (see example of a box score used for tracking kaizen effects in Figure 14.2). The box score is used for reporting the performance of the value streams, calculating the financial impact of lean (and other) improvements, and for decision making. The decision making ranges from sales quotes to make/buy, sourcing, product and service rationalization, capital purchases, selecting which new products to design and launch, etc.

There are three parts to the box score: the value stream performance measurements, a summary of the value stream income statement, and the value stream capacity analysis. When these three are put together, you have a clear understanding of the value stream's performance and potential. The operational performance measurements show how well the value stream is serving the customer, flowing the primary processes, achieving good quality, etc. The capacity analysis shows if the value stream is making good use of the people's time and/or the machines and equipment time. The summary financial statement shows the financial outcome of the value stream.

When making lean accounting decisions we do *not* look at the cost of individual products or services. All decisions are made by assessing the impact on the entire value stream. The impact includes the changes to the operational results, the financial results, and the capacity usage within the value stream. From a financial point of view, decision making shows how much money will go into the bank as a result of the various options being considered.

The routine decision making is standardized so that the decisions are always made the same way. This ensures that the box score format and data are always accurate, and that good decisions can be made by the people closest to the issue at hand. This leads to better decisions and frees up time for the company's senior leaders because the decisions are made at a lower level in the organization.

As with most things in lean accounting, using the box score is quite simple and understandable. People can focus on the issues relating to the decisions because the format and numbers on the box score are familiar and trusted.

Product Costing

Lean accounting does not have much need to calculate product or service costs. All of the reporting, analysis, improvement, and decision making are made from the impact on the value stream as a whole, not the individual product or service. The reason is that the concept of a product/service cost is misleading and in some ways dangerous. A standard cost is largely a series of allocations that do not give any real or useful information about the cost or profitability of the product, other than for valuing inventory.

If a company sells a product for \$100 and the standard cost is \$80, is it making \$20 profit? No. The allocated costs will be wrong (that's why they show up on variance reports) and the amount of money going in the bank will not be \$20. If the company has immediate capacity to make the product or provide the service, then much more than \$20 goes in the bank. Alternatively, if there is no capacity and the product or service requires extra people, overtime, outsourcing, or other methods then much less money goes in the bank. In lean accounting, we show the true "cash-in-the-bank" financial impact. It is done quickly and easily.

Many companies recognize the shortcomings of their accounting systems and reports. Some companies that are not lean-thinking use *activity-based costing* (ABC) to calculate product costs in a more precise way. There may be some benefit in the ABC approach but it does not match to lean thinking. The outcome is still a number of allocations and there will still be variance reports

	CURRENT STATE	EXPECTED KAIZEN IMPROVEMENT	AFTER KAIZEN IMPROVEMENT	ONE MONTH LATER	THREE MONTHS LATER	SIX MONTHS LATER
VALUE STREAM PERFORMANCE MEASUREMENTS	Productivity (Hrs Worked/Census)	4.89	3.92	3.67	4	
	Quality (Defects/Patient Day)	3.2	2.92	2.5	3	
	Average Length of Stay	5.7	4.2	4.2	4.2	
	Patient Satisfaction (0-5)	2.7	3.5	3.5	2.9	
	Average Cost per Patient Day	\$192.69	\$167.74	\$167.55	\$171.08	
VALUE STREAM CAPACITY	Productive time	41.90%	52.40%	52.40%	52%	
	Non-Productive time	21.70%	27.10%	27.10%	27%	
	Available Capacity	36.40%	20.50%	20.50%	20.50%	
VALUE STREAM FINANCIAL RESULTS	REVENUE	\$332,630	\$352,630	\$346,111	\$372,443	
	Supplies & Drugs	\$154,582	\$154,582	\$154,090	\$152,582	
	Salaries, Wages, & Benefits	\$154,285	\$109,428	\$109,428	\$113,428	
	Professional & Contracted Services	\$0	\$0	\$0	\$0	
	Equipment & Facilities	\$23,752	\$23,752	\$23,752	\$23,752	
	TOTAL COSTS	\$332,619	\$287,762	\$287,270	\$289,762	
	PROFIT	\$11	\$64,868	\$58,841	\$82,681	
	RETURN ON REVENUES	0.00%	18.40%	17.00%	22.20%	
	Hurdle Rate	-20%	-2%	-3%	2%	
	20%					

Figure 14.2 Example of using a box score in a medical company

showing the differences. The ABC method is even more complicated than standard costing and therefore does not fill the need for people in the company to understand the financial reports. In fact, ABC is often 10 times more complex than even standard costing because it calculates costs using many “cost drivers.”

Having said this, there are times when it is necessary to calculate product costs. The most important example of this is international customs requirements for product costs of imports and exports. When these product costs are needed, they can be calculated ad hoc using standard cost methods or they can be provided using a “features and characteristics” (F&C) method. The F&C method is a simpler way to calculate a product cost and provides a little more accuracy than standard costs. However, it should never be used for any decision making or financial reporting (Maskell et al., 2011).

Role of Lean Accounting in Tracking Improvement Activities

Motivating and tracking improvement is a very important aspect of lean accounting. Four broad types of improvement can be differentiated:

- 1 breakthrough improvement,
- 2 continuous improvement,
- 3 just-do-it improvement, and
- 4 target costing.

The first type of improvement is what I call “breakthrough improvement.” It is largely driven by strategic needs and large investments. Box scores are used to evaluate the operational, capacity, and financial impact of the various options to achieve these changes. This is not “justifying” the decisions. It is analyzing the true impact of the options, and showing the most appropriate courses of action. Lean accounting is used to calculate the financial benefits of breakthrough improvement as the strategic plans are established.

The second type of improvement, “continuous improvement” (CI), is largely driven from weekly value stream performance boards. These visual boards contain the operational measurements and financial results both visually and on the value stream box scores. The purpose of the boards is not so much reporting the results, but understanding the results so the value stream process can be changed and improved. The CI processes are driven from the weekly “board meeting.” The weekly value stream boards have Pareto charts showing the frequency of the various issues within the value stream. They also show the current CI projects and the status of the projects. When a project is completed, the team chooses another CI project to start the next week. The value stream team works out how many of these CI projects can be in action at all times. When a project is completed, a new project is initiated. This ensures *continuous* improvement. Box scores are used to evaluate the operational and financial impact of the various CI projects that the team is planning. This enables the team to decide which CI projects give the biggest financial gain. The box score is also used to monitor the improvements after the event so as to ensure they are being sustained over time.

The third type of improvement can be called “just-do-it improvements.” These improvements are done daily by the people working in the processes. Just-do-it improvements are either driven from problems that occurred within the cell or departments, or improvement opportunities the team members have identified. The improvements are done by the people working in the area and are largely self-initiated and executed. As a part of the CI selection process the value stream box score is used to understand the operational and financial impact of the various available

projects. While there are other issues to take into account, the box score is used to show which projects provide the largest financial and operational benefit. There is generally no need to do a financial analysis for just-do-it improvements. It is more important that the number of just-do-it improvements is measured and that everybody in the value stream is active in these small but cumulative changes. Over time, just-do-it improvements create significant change, improvement, and engagement of the team members.

A fourth type of improvement is “target costing.” Target costing is a different kind of improvement that is driven through lean accounting to enhance the sales and profitability of the value stream. There are four ways to improve the profitability of a value stream: sell more products/services, increase prices, reduce spending, and introduce more desirable products/services. Target costing is done by occasional analysis to understand the economics of a value stream. The purpose is to understand sales quantities, market share, and the price elasticity. An outcome of this is to identify the appropriate product/service prices for each primary market the value stream addresses. After the prices are known the value stream team identifies the amount of profit required to maintain the business, grow the company, and fund future products and growth. The outcome is a lean initiative to bring down the average cost of the value stream products so that the required profits and cash are achieved. These improvement measures do not address the “margins” of individual products or product families. The operational and financial improvements are achieved throughout the value stream as a whole.

Transaction Simplification and Elimination

When lean thinking and methods take root in a company, the operations throughout the organization come under much better control. This applies from sales through purchasing, product/service customization, production or execution, inventory control, delivery, cash collection and payment, new product/service development, and other primary processes. Traditional companies use complex management systems like enterprise resource planning (ERP) to track their processes so as to create a secondary electronic control system with thousands (or millions) of computer transactions. This is a perfectly good way to manage a traditional business, but lean companies have the advantage that they build effective controls into their operational processes through visual management, standardized work, single-piece flow, low inventories, frequent supplier deliveries, and highly trained and cross-trained employees. When the processes are well controlled operationally, there is no longer a need for the complex control systems that traditional companies use.

There are many advantages of removing the unneeded transactions, but much of it boils down to eliminating wasteful computer transactions together with the reports, reconciliations, meetings, and phone calls from senior managers. This considerable waste elimination frees up the time of operations people, support people, accounting people, and senior leadership. The operations people can use this time to provide more value to more customers, and grow the business. The accounting and senior staff can use the time freed up to focus on more strategic activities that will build a successful future business, and greatly increase the value, sales, profits, and cash.

Some companies reach the “gold standard” of transaction elimination where there are no transactions required within the operational areas. They need transactions to receive materials and to ship products, but everything else is better controlled visually. This level of simplification is not immediately possible or desirable for many companies, but is a long-term aim.

The big pay-off for eliminating waste in these areas is that it opens up one to three days per week for the accounting staff. These financial professionals can now engage in more strategic activities that will lead to higher sales, closer customer relationships, lower costs, and higher

profits. There is a win–win when financial professionals can work in the value streams to help grow the business, the market share, and the cash flow. A goal of lean accounting is to move the senior leader focus from largely tactical to largely strategic.

Planning with Lean Accounting

The role of lean accounting in the planning process revolves around strategic planning and medium–term planning. The role of lean accounting in strategic planning is to quickly provide valid financial forecasts associated with each of the strategic plans, and all the variations resulting from the consensus–building process. This way, the financial aspects of the strategic planning process can be simply and readily assessed.

The medium–term planning is achieved using *sales, operations, and financial planning (SOFP)*. SOFP is a monthly collaborative process within each value stream bringing together sales/marketing, purchasing, operations, logistics, new product development, quality, finance, and other key people to create, for example, an 18–month plan. There are five primary steps to the SOFP process:

- demand forecasting,
- capacity forecasting,
- balancing demand and supply,
- financial forecasting, and
- executive review and authorization.

Financial forecasts are developed for sales, expenses, projects and capital changes, and the resulting expected profits and cash flow. These forecasts are not done from scratch; they are modified and updated each month. Advanced lean companies extend this monthly financial forecasting so as to eliminate the time–wasting and flawed annual budget process used by most companies. Budgeting is replaced by rolling financial forecasts that are up to date and dynamic.

Conclusions

When companies transform to a lean enterprise, their traditional accounting, control, and measurement systems also need to change. The traditional accounting systems were designed for completely different control logics than that of lean production. In fact, traditional accounting systems can hinder the transition to a lean state, because they incentivize anti–lean behaviors. Therefore, lean accounting methods are designed to support the lean journey.

The vision for lean accounting can be summarized as follows:

- 1 Accurate, timely, and clearly understandable financial and operational information.
- 2 Financial and operational analysis that motivates and enables the value stream teams to maximize the value for the customer and financial benefits for the company.
- 3 Decision–making methods that provide relevant and understandable information leading to better decisions, better customer service, higher revenues, lower costs, and higher profits.
- 4 Rigorous operational and financial controls leading to orderly and predictable outcomes. These enable the controls to be focused in the operational processes, and thereby simplify the financial control system.
- 5 Full compliance with GAAP, external regulations, and internal reporting and audit requirements.

- 6 Freeing up people's time by systematically and continuously eliminating waste from the company's accounting, control, measurement, and decision-making methods. It is common for 20–50 percent of time to be freed up for financial controllers. Similar waste elimination frees up the time of operations people and support teams. Senior leaders can then focus more of their time on strategic activities because much of the tactical analysis and actions move to lower levels in the organization.

Case Study: Lean Accounting in the Watlow Electric Manufacturing Company

Watlow is a medium-sized, privately held, multinational company that designs and manufactures industrial heaters, temperature sensors, controllers, and supporting software. Since 1922, Watlow has grown in product capability, market experience, and global reach. The company holds more than 450 patents and has 2,000+ employees working in nine manufacturing facilities and three technology centers in the United States, Mexico, Europe, and Asia. Watlow also has sales offices in 16 countries around the world. The company continues to grow, while the commitment remains the same: to provide its customers with superior products and services for their individual needs.

For this case study, I asked Mr. Steve Desloge, the company's chief financial officer, to explain Watlow's approach to lean accounting:

The Beginning

In January 2005, we kicked off our company-wide lean transformation, covering all facilities. We went to it with a high level of vigor and energy, and we began value stream assessments at each of our sites and set about a series of seven-week kaizen events where our teams came together to work on improvement activities.

It became clear to us in finance that if we were to support our lean operations and get in the leading edge of the lean transformation, we were going to have to learn what finance can do to support this lean strategy. We did some research and came across the inaugural Lean Accounting Summit Conference in Detroit, MI. We took all the finance leaders to the conference and we were astonished and excited to learn about lean accounting.

Creating a First Pilot

Our first step was to select a model value stream that was fairly well along in its knowledge and implementation of lean principles and practices, and the goal was to create a model for value stream management including lean accounting. We concurrently learned what we needed to change at the enterprise level in terms of accounting policies, practices, and techniques, accounting systems and planning that would support value stream management. It was a dual effort to see what we can do at the value stream and at the enterprise level to develop a model that can be employed across the whole company.

As a result of this initiative, we developed a value stream management system that essentially replaced our current operational system (based on MRPII) which provided operational control and created a lot of accounting information, but which few people really understood. We created a new set of measurements that are linked to the enterprise and business unit strategies that showed the right targets to be achieved, and which needles we had to move in order to prosper that value stream.

We focused ourselves on the box score showing the operational performance and the financial performance of our model value stream. This created a regular weekly plan, do, check, act cadence as our standardized work for accounting, control, and measurement. We set up a process so that the teams themselves populate their own box scores (with little assistance from the financial people) so they can get their results as quickly and easily as possible. It soon became clear that no one in the value stream wanted to go back to the old way. Lean accounting was providing them with much better information to support their sales, production, customer service, and to drive the objectives of our lean transformation.

Changing the Enterprise Financials

On the enterprise side, we had to learn how to get rid of financial information on our statements that did not make any sense. We learned how to produce financial information without using allocations or other methods to spread costs around the business. This represented nirvana to us in terms of the finance teams being able to provide financial information to make better decisions and understand the impact of those decisions on the financial results in the context of the entire company's operation. It was very clear to us that this was a much better way to run the business, and it did not take much of a push to get the whole finance team behind lean accounting.

We were able to very quickly go to lean operational statements: clear, "plain English" information with no allocations, no overheads, no strange capital depreciations from the enterprise level all the way down to individual value streams. At the same time, we eliminated the reliance on standard costs together with all the calculations, all the maintenance and waste we were putting in each year to update those labor routings, overheads, volume assumptions, which did nothing but create confusion and ongoing waste. We replaced it with much simpler operational and financial reporting, and box-score decision making.

Eight Years on

We have been using lean accounting as an integral part of our business and our lean progress for eight years now. We continuously refine our processes using lean thinking and methods. We have added a number of more advanced lean accounting methods like the SOFP planning and budgeting, applying lean accounting in new product development, and better ways to address international financials. We have developed training methods so that people new to lean and lean accounting can quickly understand and use these rather simple methods.

There have been several occasions when we have made successful decisions in the company, and we have recognized that the decision would likely have gone the other way if we still had the standard costing. The simple clarity of lean accounting has led to some much better decisions being made.

We recently hired a new corporate controller who has a strong background in standard costing. He was skeptical of lean accounting during the interview stages and when he first came on board with us. Asked now if he would like to go back to standard costing, he will vociferously support lean accounting as the best way to go. His job as corporate controller is a much more strategic role than before because the regular bookkeeping and financial reporting does not take up all of his time. In addition, much of the analysis and decision making is now done by the people in business units and value streams.

Lean accounting has been a great contribution to Watlow's lean success and business success, although we realize that we still have a lot further to go in our lean journey.

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