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Introduction
The financial information used for operational decision-making is inconsistent and current accounting practices encourage tampering. Recent monetary events created turmoil in the stock market and uncertainty in investments. Furthermore, accounting methods seem ineffective in discouraging unscrupulous behavior. Because the financial health of business is measured using Generally Accepted Accounting Principles (GAAP), what other choices exist for measuring fiscal performance? This paper provides an overview on a few potential alternatives to current accounting practice. One such practice is lean accounting. The other accounting systems are Activity Based Costing (ABC), Throughput Accounting (TA), and Resource Consumption Accounting (RCA). This paper will refer to the current financial accounting system as traditional.

Current Perceptions
Cunningham and Fiume (2003) asserted that accountants should be active partners in business processes rather than bean counters. Operations managers tend to exclude accountants from the day-to-day activities, creating barriers that prevent long-term improvement and organizational transformation. In essence, the traditional accounting systems are blocking economic progress. These authors suggested that accountants should be where the action is rather than in some distant building. This suggestion is meaningful when one reflects on the development of industrial technology, technology management, and applied engineering. These disciplines increased in importance because business and engineering did not speak the same language or work in close proximity. Hence, the notion of a shift from accounting control towards business advocacy and value added services has merit. As the speed of financial transactions increases through technology such as e-commerce, the need for collaboration is likely to increase, but the cultural barriers of a transformation from control (e.g., the Controller) to cooperative management are significant.

Jusko (2007) emphasized that the movement toward accounting alternatives was born out of frustration with traditional accounting systems that encourage managers to design batch-and-queue processes and build up inventory. When combined with hard-to-understand financial reports and complicated measurements, managers began to seek accounting systems that actively supported lean operations and accurately described financial performance. Conversely, the supporters for alternative accounting principles are still in the minority and most are outside of the accounting function.

How Traditional Accounting Distorts Improvement
Traditional accounting systems distort cost by allocating overhead and treating inventory as an asset. Furthermore, the traditional methods of building standard costs are prone to error and vary greatly from firm to firm, yet most senior executives treat them as accurate. Estimating the standard cost of a product is complex. The result is a confusing snapshot of financial performance and a list of variances no operational employee can understand. Worse still, managers may game the system by making unneeded products or expenditures (Cunningham & Fiume, 2003).

Nonetheless, most accounting managers cling to standard cost and variance tracking for three reasons. First, accounting managers think it is necessary for determining the selling price. This may have been relevant when labor and materials accounted for 90 percent of product cost, but is less important now that overhead and
materials account for the majority of cost. Increasingly, target costing, as an alternative to standard costing, is gaining favor. Target costing, as developed by Japanese companies in the 1960s, requires the selling price and desired profit to be determined at the beginning of the product development cycle. The planned selling price less the desired profit becomes the target cost. This forces marketing, design, engineering, and suppliers to negotiate tradeoffs and practice continuous process improvement (Feil, Yook, & Kim, 2004).

Another misconception is that accounting managers think standard costs and variance tracking help reduce product cost. However, in the modern economy, businesses should be reducing costs throughout the enterprise, not just individual products. Higher allocations of overhead cost make it difficult to make a definitive cost reduction other than reallocating overhead. In addition, unfavorable variances are difficult to trace unless the company has precise lot identification (Cunningham & Fiume, 2003).

Finally, accounting managers think they need standard cost to value inventory. Smaller inventories have a distinct cost advantage, but inventory accumulation produces favorable balance sheets in batch-and-queue systems. In traditional accounting, raw material is valued based upon its purchase price. As the material transforms into a finished product, its value increases. This value is capitalized into a measure of anticipated economic benefits. Unsold inventory becomes an asset reported on the financial statement. When the inventory is sold, it is expensed (deducted) from assets and reported as the cost of goods sold. However, the period for the expense is usually much later than the period of the purchase. Gross profit is the cost of goods sold subtracted from sales. Hence, when companies actively reduce inventory and increase inventory turns, the result is an increase in cash flow and a decrease in gross profit on the financial report (Huntzinger, 2007).

Inventory reduction also creates excess labor hours because workers are producing just-in-time, which drives down machine utilization rates. How do traditional managers react to having excess labor and machine time?—they sell it or layoff employees. This means that management must be able grow the business fast enough to offset productivity gains or risk losing employees. This is why it takes so long for an economy to bounce back after a recession using traditional accounting measures.

Return on Investment (ROI) is another distortion. Davis, Appel, & Cohn (2008) showed that adding higher than average segments to divisions or subtracting lower than average segments from divisions would improve ROI without any change in productivity. In addition, most employees do not have the slightest idea of what ROI means or how it is calculated. Consequently, ROI loses its effectiveness because few employees can relate it to their daily activities (Cunningham and Fiume, 2003).

From Cost Control to Cost Management

Art Byrne, former CEO of Wiremold, proposed inventory turns and customer service as two of the most important performance measures (Productivity Press, 2005), but perhaps more notably, he asserted that productivity is equivalent to profitability. Productivity means increased wages without increased prices because companies can sell their products for less while increasing the standard of living for employees. The basic formula for productivity is \( P = O/I \) where \( O \) is the output of the process and \( I \) is the input (or the aggregated resources) used to produce the output, typically expressed in units. Therefore, productivity increases when a company produces output using fewer resources. To convert to a financial measure, one only has to express the units as dollars and calculate profitability by subtracting the cost of producing the product from the sales revenue. Conversely, traditional financial statements do not tell a manager if productivity has increased, decreased, or stayed the same.

Changes in the physical environment produce productivity improvements, i.e., observable changes. If productivity increases with a favorable output to input ratio, then reducing waste is paramount. The seven wastes, first identified by Taiichi Ohno, the architect of the Toyota Production System (TPS), are the basis for lean manufacturing. According to Ohno (1988), processes must include only activities that add value from the customer’s perspective. Deming (1982) added to this by saying that “Measures of productivity do not lead to improvement of productivity. … Measures of productivity are like statistics on accidents: they tell you all about the number of accidents at home, on the road, and at the work place, but they do not tell you how to reduce the frequency of accidents” (p. 15).
To accelerate cost management, Cunningham and Fiume (2003) promote plain-English financial statements. The goal is to develop financial reports that meet the needs of both operations managers and GAAP. The preparation of standard Profit and Loss (P&L) statements is non-value-added if managers cannot understand them. Financial statements should include financial as well as non-financial data. Maskell and Baggaley (2006) suggested the use of box scores in place of the P&L statement.

Vinas (2007) recommended that the way to gain support for lean accounting is to recognize that it is similar to visual thinking. Numbers are a form of symbols and in themselves are meaningless. However, the information behind the symbols is rich with information for decision-making if the right things are measured. Vinas argued that the adoption of meaningful numbers is more important than the numbers themselves.

Maskell (2007) suggested reducing the amount of misleading information given to the process manager. First, replace standard costing with value stream costing, that is, costing based upon the labor, materials, support, and facilities directly involved in the value stream for the selected product family. The result is that little or no allocation added to the product. Second, provide the value stream costing information to managers so they can make better decisions on pricing, profitability, make/buy, and products. Third, implement target costing to promote cooperative cross-functional processes throughout the product life cycle.

Using Alternative Accounting Systems to Turn Around an Economy

The following is a brief summary of ideas proposed by various authors on alternative accounting systems. Some might provide the incentives needed to stimulate economic activity and reward businesses for implementing lean practices, increasing sales, and providing high quality at low cost.

Lean Accounting

Engle (2005) described lean accounting as a variation of managerial accounting and noted that businesses may want to use it for operational decisions and use financial accounting for GAAP reporting. Lean accounting views inventory as unsold expense and uses market pricing for cost estimates. Kroll (2004) supported the idea of categorizing costs by processes (i.e., value streams), rather than by department, a key lean concept. Another key difference is the reporting of direct labor as a fixed, rather than variable cost.

Another feature of lean accounting is the emphasis on timely and responsive reporting. The rationale is simply to reduce levels of non-value-added activity and complexity while increasing diagnostic capabilities to solve problems in a timely fashion. As a side benefit, accountants can begin to work on more interesting projects that actually eliminate much of the current reporting. The lean budgeting process also requires a different perspective on capital requests. With lean budgeting, net cost equals total cost minus inventory reduction. If the inventory reduction is greater than the capital investment, the project benefit is immediate and self-funding (Cunningham & Fiume, 2003).

One of the additional benefits of lean is increased cash flow. The liquidation of excess inventory creates instant cash for acquisitions and growth. When the acquiring company applies the same lean lessons to the acquired company, it provides a game plan to free up excess assets and reduce the payback period. This teaches managers to look at potential acquisitions as opportunity, especially in the reduction of service debt (Cunningham & Fiume, 2003).

Throughput Accounting (TA)

As proposed by Goldratt (1992), TA changes the organization’s focus from cost reduction to increased throughput (defined as revenues through sales). Based upon the Theory of Constraints, TA evaluates the impact of every decision by comparing its affect on throughput against operating expense and the investment required. Actions or decisions that improve constraints (bottlenecks) improve throughput (Throughput Accounting, 1999). Using simple arithmetic, managers can quickly gage how actions affect profit and return on investment. For example, if operating expense is all the money the company spends to convert inventory into throughput, then net profit is simply the expense subtracted from throughput (sales revenue). Using the same logic, the return on investment is simply the net profit divided by the inventory (or investment) expended (Corbett, 2003).
TA does not attempt to allocate costs to individual products. Rather, costs are aggregated as a whole (Schragenheim, 2000). Producing unsold products does not count as throughput, but as investment. Thus, TA is a suitable management accounting technique for driving performance measures in the right direction and providing timely real-world indicators for decisions that benefit the entire firm, not just a single department.

**Activity Based Costing (ABC)**
As first defined by Kaplan and Bruns in 1987 and refined by Johnson and Kaplan in 1991, ABC assigns the cost of activities to a product. Each activity’s cost is an estimate for all the labor, materials, equipment, subcontracting, and overhead consumed by an individual product. The intent of ABC is to identify and reduce indirect costs or overhead that drive up the cost per unit.

Mansuy (2000) conceded that ABC is another variant of an allocation system and that actual hours rarely reconcile with it. In addition, ABC requires intensive amounts of shop floor transactions that are non-value added and may do nothing to provide increased accuracy. The key takeaway is that regardless of the accounting system, cost is not an absolute, but rather an estimate based on the selected overhead allocation method. Estimates of product cost are appropriate for GAAP.

**Resource Consumption Accounting (RCA)**
Financial professionals might refer to Resource Consumption Accounting (RCA) as a “refined ABC approach” (Krumwiede & Suessmair, 2007, p. 55) combined with the German management accounting practice Grenzplankostenrechnung (GPK). RCA applies costs to resources rather than products, and links the resource to activities. Unlike traditional accounting, the resource outputs are expressed as quantifiable units rather than dollars, allowing managers to better distinguish between resource consumption and cost. RCA makes excess capacity visible so that managers can make better decisions regarding resource acquisitions. When combined with activity-based resource planning, RCA can become a powerful budgeting tool for forecasting (Clinton & Keys, 2003).

In a pilot study, Clinton and Webber (2004) established that RCA was able to measure significant changes in a product’s profitability potential by (1) allocating directly to the consuming resource by quantity, (2) using replacement cost depreciation, and (3) removing excess capacity from product cost. In a survey of 148 German companies and 130 U.S. companies, Krumwiede and Suessmair (2007) found that 71% of German firms rated RCA as satisfactory as compared to only 24% for U.S. firms using traditional accounting methods.

**Cultural and Systemic Barriers: Can We Make Accounting Relevant Again?**
Organizations may choose to implement alternative accounting systems using a major overhaul while others may choose pilot projects. The choice seems to depend on how employees perceive change. Early adopters thrive on change, while anchor draggers (Womack, 2003) resist it. Most people are somewhere in the middle. The prevailing organizational worldview also plays a role in how managers initiate change. In hierarchical organizations, employees wait for direction compared to lean organizations where employees are encouraged to use their intelligence and creativity. Ideas and employee involvement are crucial to streamlining the accounting process and being competitive.

Do actions speak louder than words? This seems to be true for making fundamental changes to the accounting system. Cochran (2007) correctly emphasized that true change occurs only through interventions that force people to behave differently and breaks the cycle of a dysfunctional belief system. Many agents of change try to enact transformation by appealing to common values, but this is almost as difficult as convincing someone to change their political party or convert their religious faith. Managers would be more successful by concentrating on specific areas where they can demonstrate personal commitment and enlist others to do things differently. Some of the areas to concentrate on include continuing education, protection for early adopters, and acceptance of failure by those who actively engage in developing an improved accounting system. Specifically, accountants must be integrated as stakeholders within operational processes. Another key is the establishment of a communication plan to all organizational interests including the board of directors, shareholders, customers,
suppliers, financial institutions, employees, and external auditors. The communication should give a good explanation of the change that will occur, the benefits, and the challenges that lie ahead.

As with any new idea or practice, the road of change is full of potholes and attempting any sort of modification to an established system will be perilous. Juran (2003) said that the greatest resistance is cultural and traditional accounting practices are deeply embedded in corporate culture. Nonetheless, modern managers must be bold in order to enact the lasting and positive change necessary for future prosperity. A dysfunctional dependence on traditional accounting systems may have created one of the worst economic disasters in global financial history. Published sources prior to 2008 called for change, but now their advocacy for a new accounting mindset now seems prophetic. Accounting lost respect because it did not keep up with the needs of operational managers and fostered a negative perception of unresponsiveness and control. Can we make accounting relevant again?

References


