

# Evaluating Service Departments As Value Streams

Daniel L. Haskin, University of Texas of the Permian Basin, USA

Teresa E. Haskin, University of Texas of the Permian Basin, USA

## ABSTRACT

*Evaluation of the effectiveness and efficiency of service departments in a lean accounting environment is a subject that has received little attention. The cost of service departments is usually a substantial portion of the total costs of operating a business or other entity.*

*This paper proposes a unique method of evaluating service departments in a lean accounting environment by recasting them as value streams. The Internal Auditing department is used as an example, although these techniques are applicable to all service departments of entities that use the lean accounting model.*

**Keywords:** Lean Accounting; Internal Auditing; Service Departments

## INTRODUCTION

The lean accounting and management model has become more familiar and widely accepted by companies in the last few years. The lean environment is a substantial departure from the traditional approach to management and accounting and requires some innovative management and accounting techniques to function properly. This paper proposes a cost evaluation scheme that would allow better evaluation of the necessary service departments of a lean organization. The Internal Audit department is the focus, although these techniques would be useful for other service departments.

In many organizations, the Internal Audit department serves as a necessary function that provides such services to the other parts of the organization, such as production, human resources, finance, and marketing. Costs of the internal audit function are normally viewed as common costs in a traditional absorption costing environment and not allocated to the object of the audit efforts. Generally, no feedback on the cost of the internal audit is provided to the audited unit by the Internal Audit department or management. Thus, the audited unit has limited knowledge of any value that has been created by the internal audit, and the objective of the audit is usually viewed in the traditional format as the objectives stated by the Institute of Internal Auditors (IIA, 2004):

1. Determining the reliability and integrity of information
2. Determining if policies, procedures, laws, and regulations have been followed
3. Determine if assets have been safeguarded
4. Determining the efficiency and effectiveness of operations

The traditional objectives are developed for an absorption accounting framework and are not a good fit for a lean environment because in the lean environment, firms seek to maximize value for customers. Consequently, the internal audit function should be creating value for its customers.

The lean approach uses the value stream perspective to evaluate the segments of a business. A value stream is the sequence of processes through which a product is transformed and delivered to the customer (IMA, 2006a). Viewed from a value stream perspective, the customers of the Internal Audit department are the stakeholders of the entity, such as the shareholders and management, and include other value streams. If the internal audit function itself were organized as a value stream, it could be managed and evaluated in the same way as other value streams in a lean environment.

In a lean enterprise environment, the cost of the internal audit is generally viewed as a sustaining cost rather than as a value stream. A sustaining cost is a necessary cost that supports the overall facility, but cannot be directly associated with other value streams. With lean accounting, there is no requirement to absorb sustaining costs into the value streams and they are reported and controlled separately. Most entities have continued to report the cost of the internal audit function in the traditional way, even in a lean enterprise environment. This seems like a classic case of adding apples and oranges. The lean accounting system could provide more relevant information on service functions, such as the internal audit functions if the service functions were organized and accounted for in the same manner as the other units of the entity.

Lean accounting environments provide for a different basis of information and reports supplied to a company's decision-makers. In a traditional accounting system, periodic expense reports are issued to functional managers who are responsible for costs originating in their departments. In a lean environment, the value stream managers and the value stream team are the primary users of the financial information which is used for cost control and decision-making purposes. In addition, in a traditional environment, overhead costs are absorbed into product costs. Overproduction is encouraged by this environment because the higher the volume, the lower the unit product cost. Lean production counters the traditional assumption that large batches of production encourage efficiencies gained from less setup and related costs.

### **DEFINING SERVICE DEPARTMENTS AS A VALUE STREAM**

Can a service department be defined as a value stream? Lean thinking is generally viewed as applying to all processes of an entity and service departments are certainly processes of the entity that they serve. Womack and Jones (1996) defined the five principles of lean as value, value streams, flow and pull, empowerment, and perfection. Using these five principles, an Internal Audit department can be defined as a value stream because of its congruity with these five principles.

1. Value refers to lean's focus on relying on the voice of the customer as the focus for what they do. The customers of the Internal Audit department are, in a broad sense, the stakeholders of the company. The stakeholders include shareholders and management (perhaps represented by the audit committee) and the departments that receive audit services (other value streams). Value is defined by reference to the customers of the value stream who are the stakeholders.
2. A value stream consists of all of the activities necessary to create customer value. As defined by SMA #7, the value is created for a product family or service offering. The internal audit function is a service offering and the customers are the stakeholders.
3. In a lean environment, processes are designed to maximize the flow of the product through the value stream, initiated by the pull of customer demand.
4. Empowerment means allowing the people closest to the actual functions to make meaningful decisions. In a lean organization, the process experts are usually the people who perform the processes, and this idea is certainly reflective of the Internal Audit department. The best improvement will be accomplished when the department engages the talents and ideas of the auditors in the field. Lean techniques will provide information to the internal auditors in the field who can make decisions based on real time data.
5. The pursuit of perfection means everyone in the organization should focus on making incremental improvement in their own processes continuously. The internal auditors will strive to provide high quality products to their customers.

### **EVALUATING THE INTERNAL AUDIT DEPARTMENT AS A VALUE STREAM**

Evaluation techniques used by traditional accounting systems are not appropriate for lean companies because they can undermine the principles that support lean thinking. Traditional accounting systems, such as full absorption costing, were designed to support the old style of management principles and not the lean way of thinking. This process can lead to poor decisions because they are based on information designed for different circumstances. The transition from traditional absorption costing to value stream costing requires that we consider the ways that we assign costs to the value stream. Under the traditional way of thinking using the responsibility accounting approach, there are three types of evaluation centers - profit, revenue, and cost. The internal audit

function is a cost center rather than a revenue or profit center under the traditional management viewpoint. It is not designed to produce revenues or to make a profit, but incurs costs for the benefit of the other organizational units. With the cost center approach, direct and indirect costs of the Internal Audit department would be assigned to the department and would appear on the Income Statement as a part of operating costs. Managerial reports would show the costs assigned to the Internal Audit department in much greater detail, but these costs are not allocated to the users. Exhibit 1 is a functional Income Statement for the Falcon Company.

**Exhibit 1**  
Falcon Company  
Functional Income Statement

Sales	\$100,000
Cost of Goods Sold	<u>(70,000)</u>
Gross Profit	30,000
Operating Expenses	<u>(28,000)</u>
Net Operating Income	<u>\$ 2,000</u>

Exhibit 2 is a standard value stream Income Statement for the Falcon Company, which is an improvement to the traditional functional Income Statement. The statement describes the value that has been added by each of the standard value streams. However, costs are assigned to the service departments and reported as sustaining costs with no indication of the value added for the customers.

**Exhibit 2**  
Falcon Company  
Value Stream(VS) Income Statement

	VS 1	VS 2	Sustaining	Total Plant
Sales	\$60,000	\$40,000		\$100,000
Material Costs	(20,000)	(15,000)		(35,000)
Employee Costs	(9,000)	(8,000)	(5,000)	(22,000)
Machine Costs	(10,000)	(5,000)		(15,000)
Occupancy Costs	(6,000)	(4,000)	(5,000)	(15,000)
Other Costs-VS	(1,000)	(1,000)		(2,000)
VS Profit	<u>\$14,000</u>	<u>\$7,000</u>	\$(10,000)	\$ 11,000
Inventory Reduction (Increase)				<u>(3,000)</u>
Plant Profit				14,000
Corporate Allocation				<u>(12,000)</u>
Net Operating Income				<u>\$ 2,000</u>

Assume that all of the sustaining costs in Exhibit 3 are those of the Internal Audit department. To evaluate the effectiveness and efficiency of this department, 10% of the revenues of the value streams that receive the services of this department are assigned as the revenues of the internal audit value stream. For this example, VS1 and VS2 received equal amounts of these services. This allocation could be based on factors such as internal audit hours used and the amount would be subtracted out before the final income figure is calculated to insure that this Income Statement would agree with the traditional one. The 10% threshold is a measure similar to the cost of capital in other accounting situations and could be called the cost of service. This technique could be referred to as reverse allocation of costs. In this example, the value stream profit for internal audit is zero, but the results in actual situation would depend on the amount of value added by the audit of other value streams and the total costs incurred by the Internal Audit department.

**Exhibit 3**  
Falcon Company  
Cost of Service Income Statement

	VS 1	VS 2	Sustaining	Total Plant
Sales	\$60,000	\$40,000		\$100,000
Value Added			\$10,000	
Material Costs	(20,000)	(15,000)		(35,000)
Employee Costs	(9,000)	(8,000)	(5,000)	(22,000)
Machine Costs	(10,000)	(5,000)		(15,000)
Occupancy Costs	(6,000)	(4,000)	(5,000)	(15,000)
Other Costs-VS	(1,000)	(1,000)		(2,000)
VS Profit	\$14,000	\$7,000	\$ 0	\$11,000
Inventory Reduction (Increase)				<u>(3,000)</u>
Plant Profit				14,000
Value Added				(10,000)
Corporate Allocation				<u>(12,000)</u>
Net Operating Income				<u>\$ 2,000</u>

**ADVANTAGES**

Designing the internal audit function as a value stream provides a more balanced and dynamic picture of the value of its function. The dysfunction that exists when evaluating the internal audit function, as well as other service departments, is eliminated. Managers will no longer be evaluating service functions in a lean environment in the same way as previously done in an absorption accounting environment. Using the five principles that guide accounting for lean process developed at the 2005 Lean Accounting Summit (IMA, 2006a), the advantages of the internal audit process as a value stream are:

1. Using lean accounting processes eliminates waste embedded in transaction processes, reports and accounting transactions.
2. Lean accounting processes concentrate on measuring and understanding value created for the customer by focusing on the value stream rather than other cost objects.
3. Accounting reports are easy-to-understand, provided frequently, and not locked in a fixed accounting cycle.
4. Planning is assigned to the individuals who are responsible for achieving results and are actively involved in setting goals.
5. Internal accounting controls must be carefully redesigned when eliminating transactions to mitigate increasing control risks.

**CONCLUSIONS**

Lean accounting is a useful and widely-accepted management tool. Decision-making rules used in lean accounting systems are very beneficial to managers. However, the decision rules of lean accounting can lead to misguided thinking when mingled with traditional absorption accounting techniques.

Consideration should be given to accounting for Internal Audit departments and other service departments as value streams in entities that use the lean accounting model. Using this approach, the value that is added to the entity would be disclosed on the lean accounting reports of the company. Although the model proposed here is quite a departure from current practice, it offers substantial benefits to management decisions-makers. This model follows the general decision rule for lean accounting by requiring that value be added for all functions of the organization.

**AUTHOR INFORMATION**

**Daniel L. Haskin**, PhD, CPA, is associate professor of accounting at the University of Texas of the Permian Basin in Odessa, TX. His primary research interests are in financial accounting and cost and managerial accounting. E-mail: [haskin\\_d@utpb.edu](mailto:haskin_d@utpb.edu) (Corresponding author)

**Teresa E. Haskin**, MBA, CPA, is an adjunct instructor at the University of Texas of the Permian Basin in Odessa, TX. Her research interests are financial accounting and taxation. E-mail: [dthaskin@swbell.net](mailto:dthaskin@swbell.net)

#### **REFERENCES**

1. IIA (2004). *The professional practices framework*. The IIA Research Foundation: Institute of Internal Auditors.
2. IMA (2006a). *Accounting for the lean enterprise: Major changes to the accounting paradigm*. Institute of Management Accountants.
3. IMA (2006b). *Lean enterprise fundamentals*. Institute of Management Accountants.
4. Womack, J., & Jones, D. (1996) *Lean thinking: Banish waste and create wealth for your corporation*. New York: Simon & Schuster.

**NOTES**