

## **Lean Accounting: An Emerging Trend in Accounting**

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### **Abstract**

The aim of this work is to present a new concept in accounting management: Lean Accounting. This work explains the way the lean concept was born; its benefits for the production system of the factories and the necessity of applying lean accounting in the factories which have implemented lean production, taking into account both its advantages and the boundaries of the other cost management methods in those factories. With many manufacturers now undergoing a lean transformation, it becomes essential to discover exactly what part lean accounting has played in the changes made. Surprisingly, this is still an emerging concept. Reasons ranged from a lack of understanding to the barrier of company culture. This paper will cut through some of the common misconceptions about lean accounting and demonstrate instead the extensive benefits to be realized from its application.

**KEYWORDS:** Lean accounting, Lean manufacturing, Value stream

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### **INTRODUCTION**

Lean management was first introduced in the United States in the early 1980s, a great deal of literature has been written on the subject. Unfortunately, the popularity of the subject itself may add to some of the confusion. Because the origins of lean management are in the Toyota Production System, referring back to the original work may clear up a lot of misconceptions, particularly when it comes to the issue of capacity utilization.

Lean Accounting evolved from a concern that traditional accounting practices were inadequate and, in fact, a deterrent to the adoption of some of the necessary improvements to manufacturing operations. While manufacturing managers knew that investments in automation and the adoption of lean manufacturing practices were the right things to do, traditional accounting was often an obstacle to such improvements, yielding numbers that only supported investments when they could be justified by reductions in direct labor, with little benefit ascribed to any improvements to quality, flexibility or factory throughput.

### **OBJECTIVES OF THE STUDY**

- To understand the concept of Lean Accounting.
- Motive factors for Lean Accounting.
- Effects of Lean Accounting on managerial decisions.

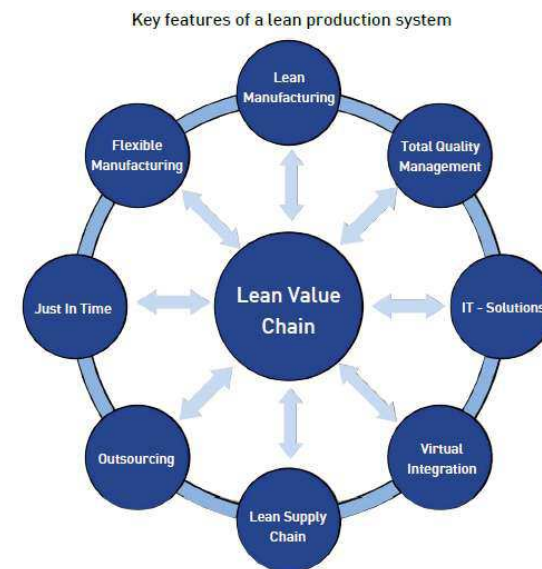
## KEY FEATURES OF LEAN MANAGEMENT

Lean Accounting is actually the cornerstone of a completely different model of manufacturing management – an entirely different business model. By itself, Lean Accounting has limited value, but as the financial basis for the architecture and application of logistics, quality management, factory operations, marketing and pricing, and other critical business functions, Lean Accounting is extraordinarily powerful.

A core principle of Lean Accounting is that the Value Stream is the only appropriate cost collection entity within the organization, as opposed to traditional accounting's use of cells, cost or profit centers or departments normally based on smaller, functional groupings of work activity. The core idea behind lean is minimizing waste, therefore creating more value for customers with fewer resources.

The value stream is the complete sequence of activities within the organization that operationally links the incoming supply chain with one or more outgoing distribution channels, as well as the complete sequence of associated business activities required to take a customer order from start to finish. Only by assessing financial impact in the Value Stream structure can management be assured that a dollar saved at some point in the process did not trigger two dollars to be spent elsewhere. Lean manufacturing is thus a continuous way of producing what the customer wants, when they want it, at a price they are prepared to pay and using the least amount of resources.

There are several potential areas in a production chain, where an organization can eliminate waste by going lean. For example, using production equipment up to the maximum potential can significantly help reduce waste. Similarly, low-cost automation is another area that can cut costs. On the sourcing side, purchasing standard parts and re using parts by dismantling old machines can also assist in waste reduction. The key features of a lean production system are depicted in the figure below:



Source: Aranca Research

## **IMPORTANCE OF LEAN ACCOUNTING**

There are positive and negative reasons for using Lean Accounting. The positive reasons are detailed below:

- Provide accurate, timely, and understandable information that can be used by managers, sales people, operations leaders, accountants, lean improvement teams and others in order to motivate the lean transformation throughout the organization, and for decision-making leading to increased customer value, growth, profitability, and cash flow.
- Lean Accounting is also itself lean. Use lean tools to eliminate waste from the accounting processes while maintaining thorough financial control.
- Fully comply with generally accepted accounting principles (GAAP), external reporting regulations, and internal reporting requirements.
- Support the lean culture by motivating investment in people, providing information that is relevant and actionable, and empowering continuous improvement at every level of the organization.
- At a deeper level Lean Accounting matches the cultural goals of a lean organization.
- The simple and timely information empowers people at all levels of the organization. The financial and performance measurement information is organized around value streams and thereby honors the lean principle of value stream management.
- The emphasis on customer value is also derived from the principles of lean thinking. The way a company accounts and measures its business is deeply rooted in the culture of the organization. Lean Accounting has an important role to play in developing a lean culture within an organization.

## **WHY IS TRADITIONAL ACCOUNTING NOT NEEDED?**

The negative reasons for using Lean Accounting lie with the inadequacy of traditional accounting systems to support a lean culture. Everybody working seriously on the lean transformation of their company eventually bumps up against their accounting systems.

Traditional accounting systems (particularly those using standard costing, activity-based costing, or other full absorption methods) are designed to support traditional management methods. As a company moves to lean thinking, many of the fundamentals of its management system change and traditional accounting, control, and measurement methods become unsuitable. Some examples of this are:

- Traditional accounting systems are **large, complex processes** requiring a great deal of non-value work.
- They provide measurements and reports that **motivate large batch production** and high inventory levels. These measurements are suitable for mass production-style organizations but actively harmful to companies with lean aspirations.
- The traditional accounting systems have **no way to study the financial impact** of the lean improvements taking place throughout the company. On the contrary, the financial reports will often show negative results when very good lean change is being made.
- Traditional accounting reports use **technical** words and methods like "overhead absorption", "gross margin", and many others. Lean company will seek to empower the entire workforce. Clear and understandable reporting is required so that people can readily use the reports for improvement and decision-making.
- Traditional companies use standard product (or service) costs which can be **misleading** when making decisions related to quoting, profitability, make/buy, sourcing, product rationalization, and so forth. Lean companies seek to have a clearer understanding of the true costs associated with their processes and value streams.
- The methods of Lean Accounting are new ideas. They are mostly adaptations of methods that have been used for many years, and have been codified into a Lean Management System designed to support the needs of lean thinking organizations.

## LEAN ACCOUNTING

In order to obtain the expected results, the companies which have adopted the Lean Manufacturing system should apply the Lean Thinking model at all company's levels including the accounting activity.

Lean Accounting refers to the management accounting, the information belonging to financial accounting being established through exact rules which should be presented in accordance with the legal requirements and they cannot be simplified (Johnson, 2006).

Due to the necessity of a new costs system for Lean Manufacturing, Brian Maskell and Bruce Baggaley have developed a model of costs management based on the stream value, the so called Value Stream Costing (VSC). They warn us that in order to be efficient the presented model, the company should be in an advanced process of Lean Manufacturing. VSC should be adopted only when the company fulfils the short lead times (the sum of the necessary times from the client's order to the delivery of the required product), has lower inventory levels (small and stable stocks) and it is organized along the value stream (Maskell, Baggaley and Grasso, 2012).

Lean Accounting, regarded as a series of Lean methods and techniques applied in accounting was born in 2005 at Lean Accounting Summit. Like Lean Production, which follows the simplification of the processes and losses reduction during the production process, Lean Accounting simplifies the accounting reports and eases their understanding (Carnes and Hedin, 2005). One of its main objectives is to measure the financial impact of implementing the improvement projects whose aims are the business support (Brosnaham, 2008).

Lean Accounting reflects the business strategy, the information being collected and presented in a visual simple way (Maskell and Kennedy, 2007). The main aim of Lean Accounting is to eliminate wastes through identifying its sources.

### **ASSESSMENT OF LEAN PRODUCTION.**

It is made with Value Stream Costing method and with Features and Characteristics method.

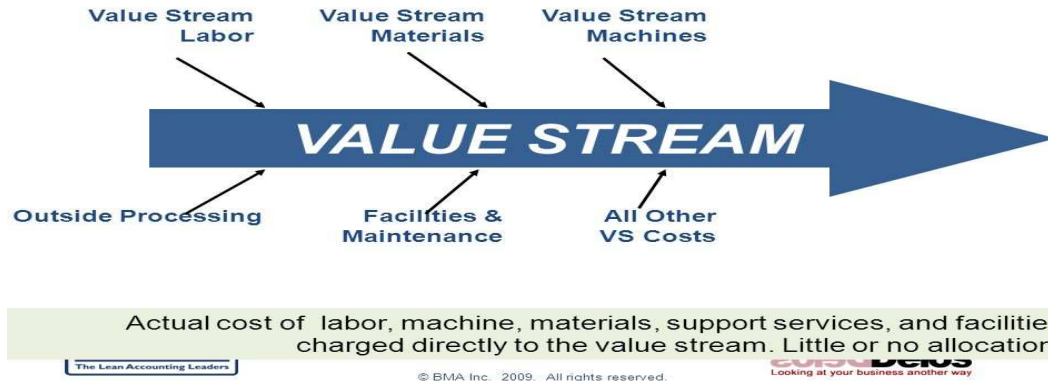
The Lean Accounting system organizes costs in a value stream which includes everything is valuable for the client regarding a product or a set of products. This approach is simple and easy to understand.

The calculation methods for the costs based on the production volume which take into account indirect costs and which need waste of resources for their maintenance and for their implementation are opposed to Lean Thinking.

The concept of value stream is based on the belief that in order to obtain the expected financial improvements, one should analyze the whole activities starting from the client's order until the payment of the product by him. Through the value stream can be seen the necessary processes in order to deliver the product to the client in a unitary form. Not using it means that the departments of an entity could optimize their own activity, without taking into account the impact of the taken measures upon the other departments.

The diagram of the value stream is a very important tool which helps Lean to change into a holistic prospect identifying the current state and the opportunities of improvements. The Value Stream Costing does not distinguish between direct and indirect costs; all costs connected with the value stream are included in it, being considered direct costs

## Value stream costing



### COST INFORMATION AND BUSINESS DECISIONS

Lean thinking advocates that the primary purpose of cost information is to obstruct lean thinkers in their quest for the lean enterprise. Their objective is to reform cost information in order to focus it entirely on highlighting the benefits of their lean initiatives and eliminating as many of those non-value adding accountants as possible.

From an organization-wide perspective, however, cost information is required as input for a wide variety of business actions and decisions, not just to support lean initiatives.

### PRICING DECISIONS

A lean enterprise also needs to make pricing decisions. Lean accounting believes in charging just the market price. Anyway, cost has nothing to do with price; the market determines the price. Cost has nothing to do with price is correct but it does, however, have everything to do with whether or not a company should want to sell a product or service at the price the market is willing to pay. Lean initiatives will enable the company to be profitable at lower prices, but not at any price.

An organization must carefully manage its “portfolio of business” if it is to be successful in the long-term and must be able to understand how each product, service, customer, and market contributes to its overall portfolio of business. Before accepting any order, even the lean organizations needs be able to answer questions such as: Will this order cover the product’s or service’s “fully-absorbed” cost? If it doesn’t, will it at least cover the incremental costs it causes the organization? If it covers the incremental, but not the fully absorbed cost, is it still in the company’s best interest to accept the order?

Even though cost does not determine price, cost information, both fully-absorbed and incremental, is critical for intelligent, fact-based pricing decisions. It may only take one bad pricing decision to ruin an otherwise sound company.

## **INVESTMENT DECISIONS**

Investment decisions have a long-lasting impact on an organization. Large amounts of money are irreversibly committed to an action because it is deemed a better use of those funds than any alternative action available. The ability to accurately predict the impact on costs of the available uses of investment dollars is critical for an organization's long-term success.

Before committing funds to accomplish an objective, either capital expenditures or expense projects, a company must be able to predict the consequences of its proposed actions. One of those consequences is the change in costs. Will the cost reduce? Will it improve the efficiency?

## **OTHER DECISIONS AND ACTIONS**

Many other decisions and actions require accurate and relevant cost information. Should a process be outsourced? Should we make or buy the product? Would the company better off working overtime or adding another shift? Would it be better to add workers and speed up the line, or work at the current line speed with the current workforce? Fact-based answers to these and many other critical questions must be made available to decision makers if the company is to succeed.

Without accurate and relevant cost information to support these decisions, executives and managers will either be "flying blind" or even worse, be looking at the world through distorted glass.

## **LEAN ACCOUNTING IN INDIAN MANUFACTURING SECTOR**

The Indian manufacturing sector is striving for operational excellence. Companies are restructuring operations and adopting world class practices in their bid to expand profits and compete in the global market. Indian manufacturers are adopting these practices in all the fields i.e. laying emphasis on Quality improvements by adopting TQM and saving 15%-20% of cost, Using captive plants to meet a part of their energy requirements, taking initiatives to reduce hazardous emission levels by adopting alternative fuels, use of IT solutions to enhance productivity and efficiency.

Recently, Indian manufacturing companies have been increasingly restructuring operations and implementing world-class practices. The companies range from Bharat Forge, Bajaj and Tata in the auto sector to Larsen &Toubro and Godrej & Boyce in the specialist engineering space as well as Ballarpur Industries in paper, and others in the pharmaceutical and textile sectors. These practices help companies become globally competitive, especially in sectors such as auto and auto components.

In addition, India's vast pool of scientific talent helps these companies locally design and procure some of the more expensive inputs. For example, TATA Group leveraged the country's low-cost engineering skills to develop India's first indigenously designed, developed and produced car – TATA Indica.

By adopting lean manufacturing practices, Indian companies have been able to significantly cut down costs. For example, Sundaram-Clayton Limited, one of the country's largest auto component manufacturers, has been able to reduce 2.5–5 per cent of costs and product prices by going lean. Through the adoption of lean manufacturing practices, the company significantly boosted employee productivity and was ranked by Lean Enterprise in the US as one of the leanest companies in the world.

The world's largest forging factory is based in the industrial city of Pune, Maharashtra (Western India). The state-of-the-art factory belongs to Bharat Forge, which is rapidly placing India on the world map for manufacturing. It has embraced a strategy that includes heavy investment in technology, a scientifically skilled workforce, and aggressive overseas acquisitions. Also, the company recalibrated its business strategy and put an emphasis on streamlining operations to create a leaner and more cost efficient enterprise.

## CONCLUSION

In order to suit nowadays economical conditions, many companies have adopted a production system based on Lean Thinking. The companies which have implemented the Lean Production system saw that the costs management methods used were in discrepancy with the Lean concept, being considered unsuitable and hostile to Lean Thinking. That is why Lean Accounting has developed; being a new management accounting method which expresses thoroughly the Lean Thinking and the Lean Practice and whose advantages are obvious.

The research made has emphasized the necessity of implementing the Lean concept in a company due to the following aspects:

- The necessity of implementing the Lean Production system, due to the fact that many of the problems nowadays are similar to those of Toyota company in 1950: highly fragmented markets with different products inquiry in small volume; a strong competition; fixed or lower prices; quick technological changes; high level of capital costs; able workers who require a greater involvement. All these need a change: a Lean type entity.
- The greatest challenge of the 21st century is costs lowering and the possibility to produce more using less-less time, less space, less human effort, fewer materials, less equipment-at the same time satisfying the clients' wishes. These are the objectives of the Lean system.
- The majority of economical activities have a fix or a lower price. The buyers are more powerful than ever; they have many options, unlimited access to information, asking for excellent quality at a reasonable price and a quicker delivery of the product. This can be made through a Lean approach whose aim is to focus on the client in order to deliver products of the best quality, at the best price and in the shortest time possible.



- The new ideas are reactions to the real problems. The economic crisis has emphasized more than ever the necessity of implementing Lean Thinking in companies. Although some companies have implemented the Lean Production, the costs management system has not changed. In order to obtain maximum results, the Lean Thinking should be applied for all activities in a company, especially for accounting.
- The costs management systems used by the companies imply greater efforts for a detailed report of costs. The Lean Accounting simplifies a lot the process itself, reducing the necessary time and effort for collecting the data, changing them into meaningful information. The Lean Accounting system presents information so that everybody can understand them, in a simple way. It should be mentioned that this Accounting system can be applied only for a company which has implemented the Lean Production, this being a long and difficult way, but the results are those expected.

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