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Integration of Lean Accounting and Cost Management Mechanisms to Achieve Competitive Advantage

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Abstract— *The primary objective of industrial institutions and businesses, in general, is to maximize profits by strengthening their position in the industry's competitive landscape and expanding their market share relative to that of other competing businesses. The purpose of this study is to demonstrate both the impact of applying lean accounting mechanisms in improving the competitive position of industrial companies and increasing the market share of these companies, as well as the role that lean accounting mechanisms play in rationalizing costs in industrial companies. This information will be gleaned from us, the authors of this study. A case study based on real data from the General Company for Rubber and Tire Industries (2016) was used to accomplish the research goals. The research findings suggested that using lean accounting processes might help the firm cut its production costs by drawing attention to unused energy and the opportunities it presents. In addition, the study demonstrated that implementing lean accounting tools, such as the value stream and target cost, has an effect on the pricing strategy of the company. This is accomplished by gaining a competitive advantage and using unused energy, leading to an optimal cost reduction. As a result, the research suggests that industrial businesses should use lean accounting techniques to effectively control their expenses and develop appropriate pricing strategies for their products.*

Keywords— *Lean Accounting; Cost Management; Competitive Advantage.*

I. INTRODUCTION

With the excellent management of institutions, especially industrial ones, in light of modern economic trends, companies are looking for a competitive advantage to face the intense competition between them [1]. However, the traditional methods for determining costs are inappropriate and do not provide sufficient information, which prompted the need for the emergence of new tools and techniques of accounting called (lean accounting), which depends primarily on the use of production elements in an agile or (rational) manner, which is reflected positively on Economy in expenses (costs), and the approved data helps to improve and efficiency in making the right decisions [2]. Lean accounting is one of the most crucial contemporary manufacturing systems that have achieved good organizational results [3]. The basic idea behind this concept is to remove all forms of waste resulting from manufacturing processes that It does not add value to the product and provides the best services to customers, with a focus on finding the Value of the single unit produced to determine the best price for it to be competitive among many competing companies, through the use of lean accounting tools and methods in an optimal way such as cost Target and Value Stream, which are the essence of lean accounting, and Box Scour, which shows the company's actual situation through its reports and clarifications. In addition, other tools and methods, as well as amending the lists to include non-financial information.

II. CONCEPT OF LEAN ACCOUNTING

Cost accounting is a branch of accounting that works to provide information for financial accounting and management accounting and works to link them together [4]. Thus, cost accounting provides financial accounting with information related to the costs of sold production and inventory costs of all kinds to prepare the necessary financial reports (income statement and balance sheet), and also provides information to management accounting about standard expenses and provides a list of costs according to the changing method, which helps In preparing budgets and making performance reports on actual deviations from the budget. Although there are several definitions of cost accounting, we will limit ourselves to the following:

"Cost accounting is about the principles, methods, and systems applied by the enterprise to plan and control the resources sacrificed by the enterprise"[5].

Cost accounting has also been defined as "a technique or method for determining the cost of a product, and this cost is determined according to direct measures and an organized, rational allocation." [6].

Cost accounting has been defined as "a system that provides detailed cost information that management needs to control current production processes and plan for the future, as well as visualize the method of production processes to produce goods and services that provide accounting information that management uses in how to allocate resources efficiently to the most profitable and effective business."[7].

Kinney and Raiborn [8] explained that "cost accounting is seen as the line of intersection between financial accounting and management accounting, and cost accounting sends the cost information required for both financial accounting and management accounting and provides cost information about the product to external parties represented by creditors and owners, as well as helps management in planning, control, and performance evaluation. "

Horngren, et al. [9] believe that "cost accounting is that system that provides information for management accounting and financial accounting."

As for Maher, "cost accounting is a cost and management information system designed for managers that helps management in planning and controlling."[10]. From the preceding, it can be said that cost accounting is an information and accounting system based on the management service through recording, compiling, analyzing, and allocating product cost data according to scientific and technical methods and rules and providing cost information about products and production elements that help management in planning, controlling and making strategic decisions for the economic unit [11]. Cost accounting is an extension of financial accounting and a starting point for management accounting, and this was confirmed by Kinney in his definition of cost accounting, as the cost accounting system helps the management of the economic unit to take actions related to the processes of purchase, manufacturing, operation, distribution, and sale.

The best program for continuous improvement is the application of "Lean accounting," which has spread significantly in recent times where the term "lean accounting" is a set of tools and procedures that eliminate waste from production and industrial processes, which do not add value to the product and help determine the types of loss. It also helps to improve the quality of the product [12]. Lean accounting also reduces the time and cost of production, so it has been used in many companies and institutions where lean accounting differs from other accounting techniques through several benefits, including finding a system for continuous development and improvement in the field of work according to what management theory works on and the presence of a practical system to reduce cost and time to satisfy customers [13].

Lean accounting is only a more credible reflection of traditional accounting for actual revenue and cost reduction, as it aims to reduce the cost of all company departments to increase profitability [14]. Traditional accounting may lead to deviations, inaccurate information, and not providing appropriate procedures for continuous improvement [15]. There are several definitions of lean accounting, including:

Elsukova [16] defines lean accounting as "a set of principles and new methods of business management based on the foundations of agility that support financial information for lean production and focus on activities that add value to the product and reduce loss or waste from the accounting system." Lean Accounting reflects the reality of lean thinking and agile practices through control, measurement, and administrative methods. With its appropriate and understandable tools, Lean accounting leads to the best decisions to reduce costs and increase profits. It also saves time and money by eliminating most losses associated with traditional accounting and control systems. Lean accounting also stimulates long-term improvement by fully processing measurements and information reports through several tools that focus on customer value, continuous improvement of business growth, eliminating excess costs, and improving profitability [17].

Fullerton, et al. [18] define lean accounting as "an accounting system to reduce the consumption of resources that do not add value to the product or services from the customer's point of view."

Farzad and Kuan [19] see them as "the costs that are prepared and organized according to the value chain concept and that collect both financial and non-financial information to provide the economic unit with financial statements that reflect performance using financial and non-financial information."

As explained by Hesthamar and Kristiansen [20] that "it shows how the product moves from the stage of raw materials to become a final product, so the organization divides its work into groups of activities, and each part of the value chain activities contributes to achieving the total value provided to the customer, and It also contributes to a part of the total profits, because the basic concept of the value chain is to add the most significant possible value at the lowest possible cost and to measure the amount of contribution to the value provided and the profit for each part in the chain. The following figure (1) illustrates the work of the value chain:

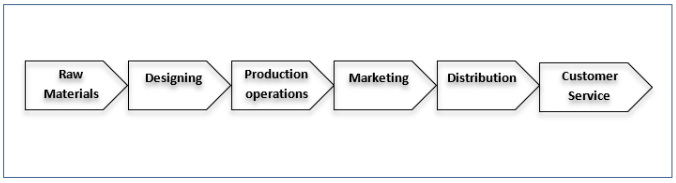

Fig. 1. Value Chain Diagram

III. Lean Accounting Characteristics

Building an organizational culture based on learning, employee empowerment, and continuous improvement to shift to agile production is challenging. In any case, organizations that focus on JIT, quality, and employee empowerment are agile. Such organizations seek to eliminate activities that do not add value from the customer's point of view. On this basis, agile operations adopt the philosophy of minimizing waste and waste by striving for perfection through continuous education, creativity, and teamwork. The most basic principles of lean accounting are measurement and motivation [21]. The lean accounting measurements are positive gains by initiating lean alternatives in several ways, such as reducing inventory, reducing production cycle time, improving production, and increasing total energies [22]. The essential principles and practices of lean accounting are summarized as follows:

1- Simple and lean accounting work: In the case of applying agile methods in accounting operations, we face two types of waste, first (waste that cannot be eliminated in an instant) and secondly, it is the most common in accounting operations (waste that can be eliminated). Making improvements early to shift to agile will pave the way for accountants to work on other changes to lean accounting.

2- Accounting processes that support the transition to agility: The accounting data and agile methods support the growth to agility, and these processes are a prelude to continuous improvement, and financial and non-financial data reflect the total value of the flow of value tables, where lean accounting focuses on understanding and creating value for customers and this information is used to increase trust and strengthen the relationship with customers.

3- Clarity and appropriate time to communicate information: Financial statements in lean accounting provide information

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that everyone can easily understand. It should also be clear and understandable and not include inaccurate and confusing information so everyone can understand and know it.

4- Planning according to the perspective of agility: Agile planning passes through monthly sales, operations, and financial planning, leading to an integrated plan for the facility using lean accounting information.

5- Strengthening the internal accounting control: One of the necessary controls for lean accounting is the accounting control, which must be strengthened and strengthened, as it cannot be left, as it is possible to describe the agility tools that must be in place so that we can go the traditional approach.

IV. The Concept of Competitive Advantage

The expansion of the activities of organizations and the diversity of their products led to an increase in competition, which makes the organization search for a larger market share to ensure its continuity, as all business organizations seek to advance over their competitors through full knowledge about all their competitors in the market to make their products distinguished from others Through quality, high technology, and better marketing to create a competitive advantage for this product or add new ones to outperform its competitors to gain buyers for the commodity more.

Kotler, et al. [23] defined competitive advantage as "the company's ability to perform its business in a way that is difficult for its competitors to imitate, and since the competitive advantage is seen mostly from the point of view of customers to achieve an advantage for them, so the company must be able to create or create value for the consumer" Customer Value - Creation) to achieve greater effectiveness, and thus obtain a competitive advantage, which subsequently leads to increased profits.

Dustin, et al. [24] explained that competitive advantage targets a system with a unique or distinctive gift that outperforms competitors through customer value efficiently and sustainably, where it can be maintained continuously and presented or presented better than others. Del Sol and Kogan [25] indicated that the competitive advantage is "the ability to conduct activities at the lowest level of costs compared to competitors, or it is the ability to distinguish and control exceptional prices that exceed the additional costs of doing so."

Ghodeswar [26] considered that "it is the presentation of products or services that are distinguished from competing products or services by adding value to the customer by enhancing performance, improving quality and providing certain services."

It was shown by Chen, et al. [27] that it is a declaration of the company's ability to excel in the areas of marketing and finance above all its priorities, which in turn requires understanding the general framework of the company through: The senior management must determine the needs and desires of the customer and how to deliver them to the customer Through a supply chain, to meet the customer in the timely delivery and delivery of the commodity or service, in addition to taking into account the average operational capabilities.

With the advent of the information and communication revolution, the matter is no longer limited to reading and writing. Still, it must evolve to be able to analyze and create and deal with many developments such as the use of computers and the global information network "Internet" and other modern and advanced matters. In light of this development, the need of markets, customers, and products of high quality and quality to be produced at the lowest possible cost to achieve a competitive ability that enables the institution to advance over all its competitors is recognized.

There are fundamental pillars that the institution must provide to achieve competitive advantage:

1- The ability of the institution to imitate: This method is considered one of the easiest and most widely used methods in the initial stages of industrial development, where the institution produces products similar to imported products and then puts them on the market in large quantities and at a competitive price, and this is known as "reverse engineering," i.e., Obtaining a final product from the market, then dismantling it, analyzing it and modifying it as possible, and then selling it in the market at a competitive price.

2- The institution's ability to develop: After obtaining all the information about the product that was then imitated and collecting consumer reactions to it, the development stage comes, which falls on the shoulders of the Research and Development Center. Among the functions of this center:
   - Developing product quality (such as canning and value added).
   - Developing the raw materials used to become better quality and less expensive.
   - Improving manufacturing workshops and working methods to become faster, more productive, and less costly.
   - Increasing distribution outlets and searching for new methods to obtain the most significant possible profit.

3- The institution's ability to innovate: Innovation is considered one of the most important strategies that the institution must obtain, as it has many benefits, including:
   - Unprecedented, innovative features.
   - Communicate with all consumers.
   - No one can acquire it until after some time.

The geniuses and talents with innovative capabilities are sought to be supported, supported, and nurtured through development programs, seminars and conferences.

V. Concussions and Discussion

Lean accounting methods directly contribute to the cost savings realized by manufacturing businesses. Profits may be increased due to using specific agile accounting tools since these techniques lower production costs, such as the value stream (by lowering the number of employees). Other factors, such as the target cost, affect the selling price to make it competitive. If just one particular sample is used to use certain lean accounting technologies, then such tools may be helpful to and positively influence the business. Inversely, the manufacturing circumstances or the manufacturing plan will be different depending on the sample and the kind of production it will be doing. The lean accounting tools are not limited to the chosen instruments for this study. Instead, any method that can be used to reduce waste, time, and resources can support the

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application of the lean calculator. This is possible because the company is continuously developing new production methods and manufacturing plans, so there is no single method that can be used to reduce waste. There are a variety of tools that may be enumerated and categorized as agile accounting tools. Lean accounting may benefit from discovering new tools that assist its job as it continually evolves along with the task itself. Producing high-quality goods at more affordable prices is the core of the company's competitive advantage, which enables it to outperform its rivals in the tire industry. The researcher's interest during the study was also demonstrated in the competitive advantage, which reflects the extent to which the company is interested in achieving its goals of producing recognizable products of high quality and at low costs that are in line with the preferences of consumers. The findings of the research demonstrate the critical importance of implementing the lean accounting tools chosen for the organization because of the direct impact they play in lowering expenses. It is vital to provide employees and managers with training on production processes and how to utilize and implement agile accounting systems. The need to adhere to the target cost tool and acquire relevant information about rivals, together with the delivery of updates at the proper periods, are both essential. Implementing the value stream technique is necessary since doing so directly affects the amount of money the firm saves thanks to more efficient use of its human resources. Apply the instruments of lean accounting in stages while continuously testing them, determining whether or not they are suitable for use with each device under the production line that is being targeted, and analyzing the outcomes.

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