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Article

The Impact of Accounting Acumen of Lean Accounting Users on Achieving Financial Balance: A Field Study

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Abstract: The present study aims to measure the impact of the Accounting Acumen of Lean Accounting (LA) Users, represented by Target Costing, Continuous Improvement, Value Stream Mapping, and Scorecard, on achieving Financial Balance (FB), specifically Financial Resilience and Financial Profitability, among employees at Al-Kufa Cement Plant. This aim emerged to address the research problem which states: "What is the effect of the Accounting Acumen of LAUsers in achieving FB among staffs at Al-Kufa Cement Plant?" To address the research problem, the descriptive-analytical method was adopted through a questionnaire, and the research sample included employees at Al-Kufa Cement Plant. A total of 175 questionnaires were distributed to measure the level of LA and FB at Al-Kufa Cement Factory, of which 151 were returned, including 12 damaged questionnaires and 163 valid for analysis, resulting in a sample response rate of 93.14%. For analysis and to achieve the best results, two software packages, SPSS and AMOS V.29, were used for data analysis. Consequently, the study produced several findings, foremost of which is the existence of a significant correlation between the Accounting Acumen of LA Users and FB. This indicates the factory management's interest in improving employees' accounting acumen by accurately prioritising financial reports, contributing to informed financial decision-making that supports FB. Additionally, factory management works on implementing LA practices through reducing waste and increasing the efficiency of its production processes by investing and utilising financial and human resources to achieve positive financial and economic outcomes. The research also proposed several recommendations, the most important of which is the need for the laboratory management to adopt advanced training programmes to enhance the accounting skills of LA users in order to ensure the improvement of employees' financial performance, which in turn leads to the development of employees' skills in financial analysis and financial planning to achieve FB. In addition, the laboratory management should implement agile accounting strategies that contribute to reducing waste, increasing efficiency and effectiveness of operations, which positively reflects on achieving FB in the laboratory.

Keywords: Lean Accounting, Financial Balance, Kufa Cement Factory

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1. Introduction

Accounting Acumen of Lean Accounting Users is considered an important resource through which the financial performance of institutions can be assessed, especially regarding the rapid environmental changes currently witnessed in the business environment. This requires accountants to practice Lean Accounting to develop the ability to adapt to these changes and to leverage information to enhance and contribute to Financial Balance. Lean Accounting is one model that can be applied to enhance efficiency and minimize losses from poor decisions, and requires institutions to use innovative tools and techniques to achieve better financial outcomes [1]. This in turn is connected with

Lean Accounting, an essential approach to the accuracy of the financial reports and achieving the strategic goals of the institution in a competitive environment [2]. The first pillar of Lean Accounting is financial balance which attempts to balance revenues and expenditures to make operational processes sustainable and to enhance financial performance. The effect of the accounting skills of Lean Accounting users on financial balance is crucial to key decisions about the standing, continuation, and expansion of the institution [3].

However, even with all of these factors to consider for achieving financial equilibrium, the accounting knowledge of lean accounting users is the most important, direct and indirect factor for achieving financial equilibrium and improving the users' ability to correctly, reliably, and objectively analyze financial data, resulting in financial performance that enables the organization to maintain internal operations and financial equilibrium, even while making a profit amid changing business conditions [4]. Lean accounting encourages the accounting acumen of users to guide the organization to design investment strategies that reduce financial risk and increase returns by increasing the internal capabilities of employees, the financial resource efficiency, and long-term goals of the organization.

However, the reverse is also true, the Accounting Acumen of Lean Accounting Users on Financial Balance is contingent upon the challenges that an organization may face in reaching its objectives, particularly changes in the business environment and global markets. Here, the Kufa Cement Plant is a critical example, as the success of the plant hinges on the ability to minimize waste, control costs, measure performance, improve technological skills, critical thinking, and apply financial or accounting knowledge [5]. These skills will allow the employee to continually enhance their abilities and adapt to change, which will lead to an accurate Financial Balance, analyzing financial data, and planning for the future.Therefore, the purpose of the current research is to address the role of the Accounting Acumen of Lean Accounting Users in Financial Balance, which will enhance the accuracy of financial reports and transparency in their use to support the organization\'s capacity for financial forecasting and analysis and more accurately determine future directions, thereby achieving better business operations and growth and expansion into target markets [6], [7], [8].

2. Materials and Methods

First: The Research Problem

One of the major goals that organizations aim to achieve for their sustainability and success in a competitive market is financial balance . Given the current economic environment, with its volatility in raw material prices and product demand, organizations need to have the capability to effectively and efficiently manage their finances. Lean accounting users develop accounting acumen to analyze financial information and use it to make decisions based on financial reports to help them accomplish organizational goals. However, most organisations lack understanding of how to better study the relationship between the Accounting Acumen of Lean Accounting Users and Financial Balance, highlighting the need for an in-depth analysis of the specific contexts of the Al-Kufa Cement Plant, This means that understanding how the Accounting Acumen of Lean Accounting Users affects Financial Balance helps in building and developing effective strategies that enhance financial performance and achieve the strategic objectives of the organisation.

One of the main challenges facing Al-Kufa Cement Plant lies in how to build the accounting acumen of lean accounting users among employees, which directly and indirectly affects their ability to achieve financial balance. However, even as management strives to introduce lean accounting, the absence of the necessary knowledge and skills to apply these practices can result in erroneous decisions, thus impacting the mechanism for producing financial performance. Additionally, employees find it difficult to understand and analyze complex financial statements and make decisions related to trends that may occur in the future, so that poor accounting skills could result in increased costs and

reduced returns, thus violating the financial objectives of the company. Hence, a thorough understanding of how to enhance the accounting skills of lean accounting users and how this would impact the financial balance would enable the plant to operate more effectively and competitively.

Moreover, it is important to understand that the accounting expertise of the users of Lean Accounting will contribute to financial equilibrium at Al-Kufa Cement Plant, because the Lean Accounting methods will enable workers to enhance their capabilities and reduce waste . Training and qualification of workers on the use of Lean Accounting methods will enhance their accounting expertise and will enable them to better manage these financial resources with more financial equilibrium. From this perspective, the research problem is framed in the following important question: To what extent does the Accounting Acumen of Lean Accounting Users impact financial balance among employees at the Al-Kufa Cement Plant? The main problem is addressed by the following subsidiary questions:

1. What is the impact of the Accounting Acumen of Lean Accounting Users on achieving financial balance at the Kufa Cement Plant?.

2. What are the internal and external factors that influence the relationship between the Accounting Acumen of Lean Accounting Users and financial balance?.

3. How can the relationship between the Accounting Acumen of LA Users, FR, and Financial Profitability be measured?.

4. What are the future strategies to enhance the Accounting Acumen of LA Users and achieve FR at the Kufa Cement Plant?.

Second: The Importance of the Research

The current study contributes to the literature by emphasizing the impact of Accounting Acumen of Lean Accounting Users on Financial Balance to improve the precision and transparency of financial reporting which enhances the ability of the institution to forecast and conduct financial analysis, and to determine its future directions more accurately, and thereby be able to achieve success in its business operations and growth and expansion in targeted markets. Financial Balance is a critical success factor for an institution. Given growing economic pressures, institutions must manage financial resources with sound practices, and lean accounting users demonstrate accounting acumen to better manage financial resources, leading to positive financial outcomes. There are several other points where the current research is important:

1. Improve overall understanding of how the Accounting Acumen of Lean Accounting Users impact Financial Balance to assist management at the Kufa Cement Plant to make decisions that support sustainable Financial Performance.

2. The study supports organizations in designing financial strategies that will lead to success in the competitive business environment.

3. Adds to the body of literature regarding the Accounting Acumen of Lean Accounting Users and Lean Accounting, and how organizations can improve their Financial Performance.

4. Supplies a framework for designing educational and training programs to build Accounting Acumen of Lean Accounting Users in order to improve the financial performance of the plant.

5. Broaden overall awareness of the strategic nature of accounting acumen in achieving financial balance.

6. Offer actionable insights and data to guide management decisions at the Kufa Cement Plant regarding investment and financial planning.

Third: The Objectives of Research

This study aims to assess the effect of Accounting Acumen of Lean Accounting Users (Target Costing, Continuous Improvement, Value Stream Mapping, and Scorecard) on Financial Balance (Financial Resilience, Financial Profitability) at Al-Kufa Cement Plant. This information enables the organization to develop training and educational strategies

to improve accounting skills to support the process of financial performance assessment. Moreover, improving the Accounting Acumen of Lean Accounting Users involves identifying the challenges employees face and understanding how those challenges impact their ability to attain Financial Balance, which requires identifying the factors that influence the Accounting Acumen of Lean Accounting Users and making actionable recommendations for improvement, which contributes to Financial Balance. The study also seeks to accomplish the following:

1. Determine the influence of LA Users on attaining FB at Kufa Cement Plant.
2. Identify the internal and external factors that influence the relationship between Lean Accounting Users and financial balance.
3. Explain the extent to which Lean Accounting Users impact financial resiliency and financial profitability.
4. Identify proposed strategies to enhance Lean Accounting Users and achieve financial balance at Kufa Cement Plant.

Fourth: The Hypothetical Outline and Hypothesis Development

After defining the research problem, determining the objectives through which this problem can be addressed, and determining the importance that the current research can add as a result of addressing this problem, it is necessary to develop a hypothetical structural plan that clarifies the foundations through which the problem can be addressed and the objectives of the section achieved, and to develop the hypotheses that can be adopted for this purpose. Figure (1) illustrates the hypothetical plan for the research in light of two variables:

The independent variable: represented by **Lean Accounting**, and this variable was measured through four dimensions: (Target Costing, Continuous Improvement, Value Stream Mapping, and Scorecard).

The dependent variable: included **Financial Balance**, and this variable was measured through two dimensions: (Financial Resilience and Financial Profitability).

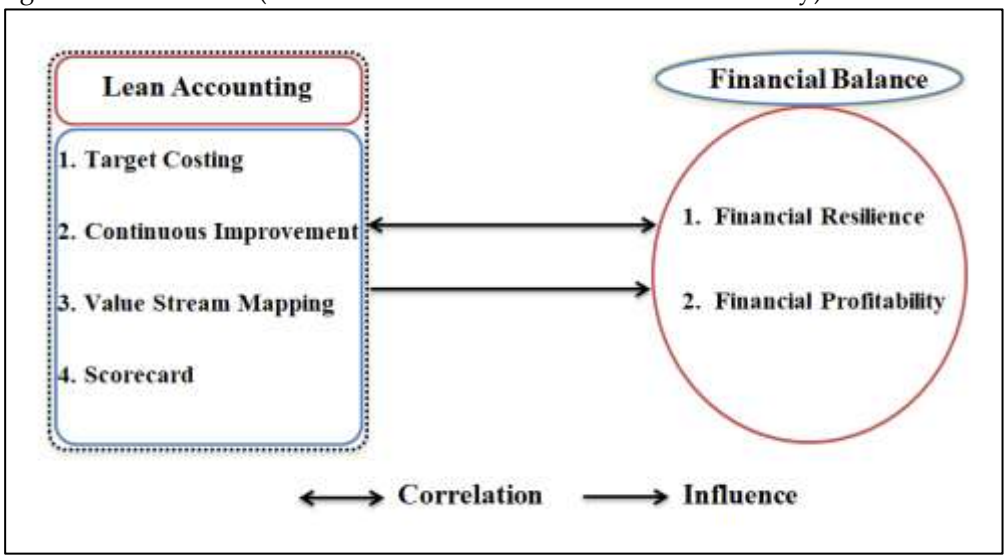

Figure 1. Hypothetical Research Outline

In light of Figure (1), two hypotheses can be developed:

H1: There is a significant correlation between Lean Accounting and Financial Balance, and the following emerges:

1. There is a significant correlation between Target Costing and Financial Balance in light of (Financial Resilience and Financial Profitability).
2. There is a significant correlation between Continuous Improvement and Financial Balance in light of (Financial Resilience and Financial Profitability).
3. There is a significant correlation between Value Stream Mapping and Financial Balance in light of (Financial Resilience and Financial Profitability).

4. There is a significant correlation between Scorecard and Financial Balance in light of (Financial Resilience and Financial Profitability).

H2: There is a significant effect of Lean Accounting on Financial Balance, and the following emerges:

1. There is a significant effect of Target Costing on Financial Balance in light of (Financial Resilience and Financial Profitability).

2. Continuous improvement has a significant impact on the financial balance in terms of (Financial Resilience and Financial Profitability).

3. Value Stream Mapping has a significant impact on the financial balance in terms of (Financial Resilience and Financial Profitability).

4. Scorecard has a significant impact on the financial balance in terms of (Financial Resilience and Financial Profitability).

Fifth: The Research Sample

The research community represents the Al-Kufa Cement Plant, located in Al-Burakiya area, Al-Kufa District, Najaf Governorate, and was established in 1977. Its total cost amounted to 63,233,500.216 Iraqi dinars. The plant is considered one of the important projects in the region, providing the necessary cement for construction and building projects. The research sample included the employees of Al-Kufa Cement Plant, as 175 forms were distributed to measure the level of Lean Accounting and Financial Balance at the plant, of which 151 questionnaires were retrieved, including 12 damaged forms and 163 valid for analysis, resulting in a sample response rate of 93.14%.

3. Results and Discussion

Part Two: The Theoretical Aspect

First: Lean Accounting

1. The Concept of Lean Accounting

Lean Accounting represents the process of addressing losses in production and operational processes, reducing the flow time of production operations, providing accurate data, improving product quality, and offering greater flexibility and speed in meeting customer and market requirements. Maskell (2017:3) defined Lean Accounting as implementing radical changes in the accounting system with traditional control and measurement, aiming to achieve lean concepts to eliminate waste and accelerate procedures that provide appropriate information for making suitable decisions [9]. indicated that it is a specialised approach based on the principles of lean management and production, which provides suitable foundations for using accounting information that supports management, cost, value activities, and the elimination of waste from accounting systems applied in organisations.

Lean Accounting is a system aimed at providing useful information to individuals in production plants who actively and continuously manage manufacturing processes, eliminating waste and adding value to the organization [10], [11]. In general, Lean Accounting is an integrated management system that aims to remove waste during the application of principles and the use of tools that help eliminate activities that do not add value to the customer, thereby making production and manufacturing processes easier and faster, allowing for better value delivery to both customers and the organisation as a whole.

Lean Accounting refers to business strategies aimed at supporting agile organisations, seeking to transition from traditional accounting methods to a system that measures and incentivises best business practices in agile organisations [12], [13]. It is a method of eliminating waste in production operations, reducing the flow time of production processes, providing accurate data, improving product quality, and increasing flexibility to meet customer and market requirements [14], [15]. It is a system that gives the organization the right information at the right time to support good decisions that lead to higher profit and cash flow. Lean Accounting employs some tools to eliminate waste by

eliminating activities that do not add value to the product. Lean Accounting is also referred to as a set of cost control and management activities to optimize high-performance efficiency for competitive advantage [16]. It was also pointed out that Lean Accounting is a value chain cost accounting system that is an alternative measurement system. As can be seen from the above, Lean Accounting is an accounting process that provides accurate and timely information to enhance profitability and cash flow, and to facilitate agile transformation in the organization [17], [18].

2. The Importance of Lean Accounting

Lean Accounting is a management system designed to create a lean organizational culture and to engage all employees in the Continuous Improvement process. Its main purpose is to decrease waste in production processes to support lean manufacturing, to create customer value by mapping value streams to satisfy customer requirements, and to adhere to lean philosophy [19], [20]. Lean Accounting strives to eliminate waste and losses in production processes to achieve lowest costs, and focuses on employees of the organization as a critical factor in the Continuous Improvement process. Therefore, the role of Lean Accounting is emphasised as follows:

a. Flexibility in manufacture, reducing lead time, cumulative the speed of conference customer stresses, and ornamental production quality.

b. Optimizing resource utilization, achieving the organization's financial objectives, and increasing profitability [21], [22].

c. Using lean tools to eliminate sources of waste resulting from accounting, control, and other transactions.

d. Applying Lean Accounting principles to eliminate various complexities, problems, and waste in various processes.

e. An emerging strategy used by organizations to achieve their business objectives.

f. Enhancing a series of activities to control and manage costs effectively and enhance efficiency to achieve high performance and competitive advantages.

g. Enhancing the process of improving financial and non-financial information efficiently and effectively [23], [24], [25].

h. Helping develop lean production.

3. Dimensions of Lean Accounting

Lean accounting can be measured through several tools, including:

a. Target Costing: Target costing is an effective means of improving financial performance. It is considered a simultaneous approach to cost and profit management, as it determines the permissible costs that allow for achieving the target profit rate from product sales. Therefore, target costs operate according to market factors and variables, thereby improving the unit's competitive advantage, achieving its objectives, and enhancing product quality [26], [27]. Target costing specifically seeks to reduce costs through value chains, which create value for the product in order to satisfy customers by identifying their desires with the goal of fulfilling them. The board of directors sets the necessary estimates for costs and revenues and then releases products to the market according to customer desires, thus increasing the organization's revenues and achieving sales growth by strengthening the organization's competitiveness [28].

b. Continuous Improvement: Continuous improvement is a process that focuses on all components of an organization, including processes, personnel, and equipment, in the form of gradual, successive, and continuous improvements [29], [30]. This aims to raise financial performance, thus giving the organization a competitive advantage that ensures its survival and continuity. Continuous improvement focuses on costs and the possibility of reducing them through additional improvements to the current production process or product design process. This is achieved by eliminating activities that do not add value to the product, reducing spoilage, and eliminating waste or loss in operations as much as possible. Continuous improvement works to ensure the continuity of the

organization by gaining a competitive advantage through generating growth and profits [31].

c. Value Stream Mapping: Value stream mapping is a visual representation tool that audits the materials and information a product processes from the time a sales order is received until the final product is completed. It is used to distinguish between value-adding and non-value-adding activities [32]. These maps chart the flow of products, services, or information and verify inventory levels. They also reduce management oversight time, increasing management's ability to utilize time for planning and strategic decision-making, thus reducing the cost of time that would otherwise consume resources and services. They also provide continuous and periodic financial performance measures using a performance scorecard, and work on continuous improvement and monitoring of completed processes with the aim of reducing waste by providing timely information and thus leveraging costs for other processes [33], [34].

d. Scorecard: Financial performance metrics reflect an organization's short-term goals and indicate its contribution to strategy implementation and continuous improvement of its objectives and activities from a financial perspective. This is achieved by identifying aspects of the organization's financial position based on several metrics [35]. Performance is evaluated here by comparing it with the financial performance results of competitors and with the organization's own historical benchmarks and measures. This supports performance measurement, which feeds back into the generation of revenues for the organization and thus its growth and sustainability [36]. Scorecard is also concerned with growth and learning, something that enhances the internal capabilities and skills that need to be developed to achieve the longer-term objectives of the organization. Without this, no organization can operate, and it builds its capacity to create value for customers and shareholders. Thus, scorecards give an organization a snapshot of how well its strategies are working and whether they will remain or need to change [37], [38].

Second: Financial Balance

1. The Concept of Financial Balance

Financial Balance is defined as supplying the firm with the needed level of financial resources at the optimal means, with the least cost, in a manner that maintains a stable financial structure, so that the firm can meet its overall obligations and short-term debt obligations as they become due, thus avoiding financial distress that could result in bankruptcy or exit from the business market [39], [40]. It constitutes a set of financial strategies and methods used to regulate economic operations and the financial structure. Financial equality is achieved through orderly trading linked to the financial structure, which corresponds individually to the concept of Financial Balance . Financial Balance is attained when a company can recover all resources consumed during the production process or service delivery, which occurs when the value of inputs equals the value of the incurred expenses [41].

Achieving Financial Balance relies on considering two main elements: the first consists of the available sources of funding, which include equity and short-term loans, while the second element consists of permanent sources of funding, represented by equity and long-term loans [42], [43]. Ra'iq et al. indicated that Financial Balance in a company is based on a fundamental principle, which is that permanent funds, including the company's own funds (equity) along with medium- and long-term loans, must be equivalent to net investments plus standard working capital (the basic needs of working capital). Based on the above, it can be said that Financial Balance represents the organisation's ability to achieve equilibrium and equality between revenues and expenses in order to ensure an appropriate productive and service process [44], [45].

2. The Importance of Financial Balance

The importance of Financial Balance lies in companies' efforts to achieve a balance between assets and liabilities, while maintaining this balance continuously. Generally, companies aim to have sufficient liquidity to finance their operational expenses on one

hand, and to achieve high returns by investing as much of their funds as possible on the other hand [46], [47]. The importance of Financial Balance can be summarised as follows:

a. Predicting future results for the company's treasury and assessing associated risks: by analyzing the treasury's financial position and its ability to invest [48].

b. Estimating returns from available investment opportunities: Forecasting the expected returns from investment operations.

c. Enforcing internal control over cash flows: Balancing cash inflows and outflows.

d. Evaluating the company\'s financial performance: Assessing the use of financial resources to generate returns and revenues [49], [50].

e. Ensuring the payment of short-term debts and ornamental financial creditworthiness.

3. Dimensions of Financial Balance

FB can be slow finished several pointers, counting:

a. **Financial Resilience**: Over the last three decades, social and economic changes have created greater need for flexibility in the financial and administrative systems of companies; now the business environment is characterized by turbulence, complexity, and uncertainty, so companies that wish to survive in the environment must have more flexible organizational and financial structures [51]. Because financial resiliency is intangible and problematic to quantify, investigators have found it stimulating to measure. Researchers have tried to measure financial resiliency using debt and financial leverage, but this is not considered adequate, as there are other factors that donate to measuring financial resiliency, like cash holding [52].

b. **Financial Profitability**: Firms face a number of risks in the changing economic environment, from risks to the firm's operations and activities, to the services the firm provides to customers (e.g., loans and investments). The banking industry has experienced swift, dramatic changes since the financial crises, including a shift in the purpose of the banking industry and the services provided. The banking sector should drive the economy, but it does not always do so [53]. For example, a bank might limit its lending policies to avoid the risk of non-payment and higher non-performing loans, which will also affect its banking performance. Therefore, these banks should have a strategy that is consistent with their needs and with the current market conditions.

Part Three: Practical Aspect

First: Description and Coding of Research Variables

This step aims to current the symbols on behalf of the variables and sections of the dimension instrument, which helps the reader properly understand the results and delivers a clear insight into the objects the study seeks to disclose; accordingly, Table (1) illustrates the coding and account of the study variables.

Table (1) Coding and Description of Variables

Variables	Dimensions	NO.	The code		Source
Lean Accounting	**Target Costing**	**5**	**TC**	**LA**	Bouslama,& Bouakaz,2020
	Continuous Improvement	**5**	**CI**		
	Value Stream Mapping	**5**	**VSM**		
	Scorecard	**4**	**SC**		
Financial Balance	**Financial Resilience**	**7**	**FR**	**FB**	Fahlenbrach et al.,2021
	Financial Profitability	**5**	**FP**		

Second: Normal Distribution Test

The results in Table (2) designate the analysis of data connected to the research variables, where a mathematical test was used to examine whether the data follows a normal delivery. This shows that the significance level is greater than 0.05, meaning that

the data conform to a normal distribution [54]. Accordingly, the null hypothesis stating that the data drawn from the study sample follows the normal model was accepted, and the alternative hypothesis was rejected.

Table (2) Normal Distribution Test of Study Variables

NO.	Kol-Smia			Sig.			NO.	Kol-Smia			Sig.		
TC1	0.280	0.119	0.116	0.184	0.095	0.092	FR1	0.233	0.086	0.087	0.137	0.094	0.064
TC2	0.273			0.165			FR2	0.210			0.152		
TC3	0.281			0.137			FR3	0.212			0.133		
TC4	0.289			0.140			FR4	0.229			0.153		
TC5	0.233			0.136			FR5	0.221			0.119		
CI1	0.255	0.097		0.119	0.073		FR6	0.233			0.175		
CI2	0.243			0.182			FR7	0.208			0.137		
CI3	0.280			0.137			FP1	0.222	0.088		0.137	0.082	
CI4	0.294			0.167			FP2	0.198			0.143		
CI5	0.214			0.147			FP3	0.242			0.175		
VSM1	0.216	0.146		0.175	0.122		FP4	0.217			0.192		
VSM2	0.241			0.130			FP5	0.199			0.138		
VSM3	0.249			0.120									
VSM4	0.238			0.120									
VSM5	0.196			0.142									
SC1	0.233	0.099		0.149	0.075								
SC2	0.194			0.122									
SC3	0.233			0.166									
SC4	0.201			0.156									

Third: Exploratory Factor Analysis Test

Exploratory factor analysis is considered one of the most prominent statistical tests that help determine the relationship between variables and latent factors [55], [56], [57]. This analysis aims to identify the factors that explain the variables, and the statistical saturation value of the variables should not be less than 0.60. The results in Table (3) show that the standardised saturation values for the research variable items are acceptable, as the saturation value exceeded 0.60 at a significance level of less than 0.00001. Moreover, all items designed to measure the entrepreneurial tendency variable adequately represent this variable and help explain it.

Table (3) Exploratory Factor Analysis Satency of Research Variable Factors

Component Matrix						
NO.	**LA**				**FB**	
	TC	**CI**	**VSM**	**SC**	**FR**	**FP**
TC1	0.931					
TC2	0.874					
TC3	0.904					
TC4	0.875					
TC5	0.933					
CI1		0.900				
CI2		0.924				
CI3		0.908				
CI4		0.801				
CI5		0.868				
VSM1			0.866			
VSM2			0.863			
VSM3			0.801			
VSM4			0.922			

VSM5			0.790			
SC1				0.857		
SC2				0.822		
SC3				0.717		
SC4				0.770		
FR1					**0.786**	
FR2					**0.926**	
FR3					**0.890**	
FR4					**0.857**	
FR5					**0.877**	
FR6					**0.899**	
FR7					**0.970**	
FP1						**0.870**
FP2						**0.935**
FP3						**0.843**
FP4						**0.841**
FP5						**0.790**

Fourth: Measurement Tool Stability Analysis

The results in Table (4) show that the overall reliability of the measurement instrument was 0.959, distributed between the Lean Accounting variable represented by four dimensions with a total of 19 items, achieving a reliability of (Cronbach's Alpha = 0.954). The reliability of its dimensions ranged from a minimum of 0.846 for the Target Costing dimension to a maximum of 0.871 for the Scorecard dimension, demonstrating the consistency of the questionnaire items [58]. Findings showed that the dependent variable (Financial Balance) with three dimensions and 12 items had a reliability of (Cronbach\'s Alpha = 0.890); the dimensions ranged from a minimum of 0.797 for the dimension of Financial Profitability to a maximum of 0.827 for the dimension of Financial Resilience.

Table (4) Cronbach's Alpha Test Parameter

Variables	**Dimensions**	**NO.**	**Cronbach's Alpha**		
Lean Accounting	**Target Costing**	**5**	0.846	0.954	**0.959**
	Continuous Improvement	**5**	0.852		
	Value Stream Mapping	**5**	0.869		
	Scorecard	**4**	0.871		
Financial Balance	**Financial Resilience**	**7**	0.827	0.890	
	Financial Profitability	**5**	0.797		

Fifth: Statistical Description of Variables

Table (5) shows a focus of the sample on Lean Accounting with a mean of 3.53 and a standard deviation of 0.77 due to the adoption of the Target Costing (TC) dimension with a mean of 3.58 and a standard deviation of 0.74, and less interest in the Value Stream Mapping (VSM) dimension with a mean of 3.48 and a standard deviation of 0.85. It shows that laboratory management focuses on cultivating a culture of transparency in the management of financial operations so that employees are more confident that financial information is accurate and are more willing to become committed to Financial Balance and to participate in informed financial decision-making.

Table (5) shows that the sample has a significant interest in improving Financial Balance, which is demonstrated by the mean score of (3.50) and standard deviation of (0.84) from adopting the Financial Resilience (FR) dimension with a mean score of (3.55) and standard deviation of (0.81), and a lower interest in Financial Profitability (FP)

dimension with a mean score of (3.45) and standard deviation of (0.98). This suggests that laboratory management is actively seeking solutions to manage financial data more effectively to ensure more accurate and appropriate financial risk assessment, thus contributing to the support of Financial Balance in the laboratory.

Table (5) Statistical Description

No.	Mean	S.D	No.	Mean	S.D	No.	Mean	S.D	No.	Mean	S.D
TC1	3.45	1.09	**CI5**	3.32	1.11	**SC3**	3.58	1.22	**FR7**	3.52	1.16
TC2	3.70	1.15	**CI**	**3.51**	**0.90**	**SC4**	3.49	1.27	**FR**	**3.55**	**0.81**
TC3	3.66	1.10	**VSM1**	3.38	1.18	**SC**	**3.53**	**0.90**	**FP1**	3.52	1.22
TC4	3.51	1.12	**VSM2**	3.56	1.13	**LA**	**3.53**	**0.77**	**FP2**	3.46	1.20
TC5	3.52	1.06	**VSM3**	3.60	1.04	**FR1**	3.49	1.26	**FP3**	3.43	1.17
TC	**3.58**	**0.74**	**VSM4**	3.61	1.02	**FR2**	3.42	1.28	**FP4**	3.31	1.24
CI1	3.55	1.12	**VSM5**	3.44	1.19	**FR3**	3.71	1.22	**FP5**	3.49	1.20
CI2	3.49	1.18	**VSM**	**3.48**	**0.85**	**FR4**	3.52	1.24	**FP**	**3.45**	**0.98**
CI3	3.60	1.11	**SC1**	3.64	1.14	**FR5**	3.66	1.09	**FB**	**3.50**	**0.84**
CI4	3.70	0.95	**SC2**	3.53	1.25	**FR6**	3.41	1.21			

Sixth: Hypothesis Testing and Path Analysis

H1: There is a significant correlation between Lean Accounting and Financial Balance

Table (6) shows the relationship between Lean Accounting and Financial Balance is highly correlated with a value of 0.781, which shows the sample prioritizes the relationship between the dimensions of these variables, with correlation strengths ranging from 0.581 between the Scorecard (SC) dimension and the Financial Profitability (FP) dimension, to 0.702 between the Value Stream Mapping (VSM) dimension and the Financial Resilience (FR) dimension, which suggests a strong relationship between the Accounting Acumen of Lean Accounting Users and Financial Balance, which indicates that the laboratory management prioritizes enhancing the accounting acumen of employees to accurately determine financial reporting priorities, leading to informed financial decision-making that supports Financial Balance.

Table (6) Correlation Matrix

	TC	CI	VSM	SC	LA	FR	FP	FB
TC	1							
CI	.773**	1						
VSM	.866**	.844**	1					
SC	.671**	.718**	.700**	1				
LA	.904**	.923**	.938**	.860**	1			
FR	.687**	.662**	.702**	.679**	.753**	1		
FP	.668**	.682**	.659**	.581**	.714**	.753**	1	
FB	.722**	.719**	.724**	.668**	**.781****	.923**	.948**	1

H2: There is a significant impact of Lean Accounting on Financial Balance

The results of Table (7) and the cross-sectional data in Figure (2) indicate a significant impact of Lean Accounting on Financial Balance, as an increase of one unit in Lean Accounting leads to an improvement in Financial Balance of (0.858) with a standard error of (0.070) and a critical value of (12.257), which indicates that the laboratory management focuses on continuous employee training to ensure the development of their accounting skills aimed at achieving and enhancing their accounting awareness to improve and realise Financial Balance. Furthermore, the laboratory management is keen to adopt modern financial analysis techniques to provide high financial performance that contributes to identifying strengths and exploiting them while addressing weaknesses, ultimately leading to an improvement in Financial Balance.

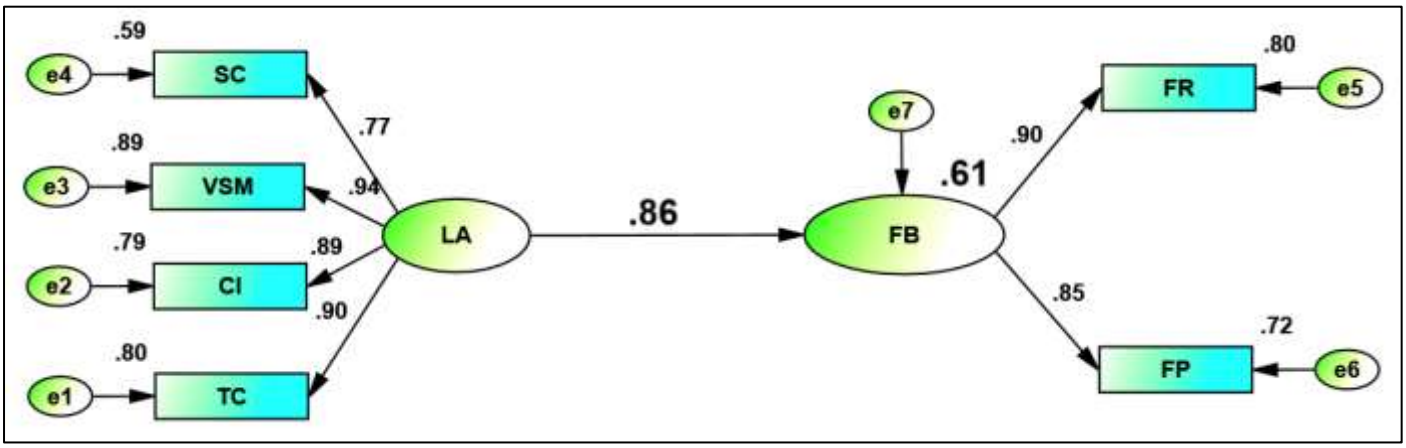

Figure (2) Path Analysis of the Impact of Lean Accounting on Financial Balance

Lean Accounting also contributed to explaining (0.610) of the variance in the Financial Balance, while the remaining value falls outside the study's limits.

Table (7) Path Analysis Results of the Impact of Lean Accounting on Financial Balance

Path			Standard weights	standard error	critical value	R^2	P
LA	--->	FB	0.858	0.070	12.257	0.610	***

4. Conclusion

Part Four: Conclusions and Recommendations

First: Conclusions

1. The Accounting Acumen of Lean Accounting Users and Financial Balance are positively correlated with 0.77, indicating the laboratory management is interested in improving the accounting acumen of its employees by prioritizing the accuracy of its financial reports and using the information to make sound financial decisions to achieve Financial Balance.
2. Laboratory management devotes financial and human capital to implement Lean Accounting practices to reduce waste and improve the production process to attain positive financial and economic outcomes.
3. Laboratory management continues to train employees and to strive for and grow Accounting Acumen that will lead to an increased understanding of Financial Balance.
4. High financial performance, a signal of strengths and a reduction of weaknesses, achieved by the laboratory management through modern financial analysis techniques, will also contribute to financial balance.
5. Laboratory management fosters open financial operations management, which creates a greater level of confidence by employees that the financial information is reliable, leading to commitment to financial balance and to contributing to making informed financial decisions.
6. Laboratory management establishes a good financial data strategy that makes it easier to assess financial risks, thereby enabling effective financial balance support in the laboratory.

Second: Recommendations

1. laboratory management must introduce more advanced training programs to improve the accounting skills of Lean Accounting users, which will help employees achieve better financial performance and build their skills in financial analysis and financial planning for financial balance.
2. laboratory management must implement lean accounting strategies to reduce losses and waste, which will improve the effectiveness and efficiency of the laboratory and also lead to a financial balance.

3. laboratory management must cultivate a culture of transparency in the internal financial operations to build and achieve a balance of trust between employees and management, which will enhance the possibility of achieving financial balance.

4. Laboratory management needs to review financial policies periodically to maintain a balance between these policies, objectives, skills, and capabilities to adapt to changing economic and social circumstances and to achieve financial balance.

5. The lab management should strive for and facilitate collaboration between colleagues and the different departments to ensure the financial information flows appropriately to achieve financial balance, using lean accounting mechanisms.

6. Conduct continuing analytical studies to assess the impact of the LA Acumen of Lean Accounting Users on FB to construct a story that clearly articulates the visions, ambitions, and future prospects of the workroom.

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