

THE ROLE OF INTEGRATION OF TOTAL COST OF OWNERSHIP AND ACTIVITY-BASED COST IN ENHANCING THE COMPANY'S PROFITABILITY

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Abstract

The management of companies takes into account the price of the product or service provided only in making purchasing decisions this poses a risk in relation to the business budget which reduces the company's profitability performance. The aim of the study is to use the total cost of ownership (TOC) as a tool for measuring the profitability of the company. Being a tool and a philosophy for calculating all real costs with a particular supplier by adopting appropriate activities and cost drivers for each activity. Which reduces the costs incurred by the company, because it excludes non-value adding activities, which leads to reduce budget failures as well as the use of resources in the best possible way and thus increase the profit of the company. The study dealt with the concept of integration between total cost of ownership (TOC) and activity-based cost (ABC) and its impact on the profitability of the company. The study concluded that the integration of (TOC) and (ABC) positively affect the profitability of the company.

Keywords: Total cost of ownership (TCO); Activity Based Costing (ABC); company's profitability.

1. Introduction

Maximizing profitability is a strategic goal for many companies therefore, there was a need to provide the necessary cost information and the resources that companies need to survive and continue to face competition. This led to an interest in all parts of the production sciences, especially the company's relationship with suppliers because of its effects that must be taken into consideration beyond the price limits only. As the resource is seen as a strategic asset and a potential source of competitive advantage, Knowing the best supplier is not only important to the decision makers, but to the suppliers themselves.

By managing a company's supply chain costs, purchasing costs can be calculated on a large scale. As the supplier is an important part of the total value chain of the company, there was a need to develop methods within management accounting and cost accounting to display and audit the appropriate information for that department and to calculate the costs of suppliers within the supply chain. The (TCO) method is one of these methods that seeks to facilitate obtaining the total cost of suppliers, which produces a relative measure of the cost of the supplier and the purchase price. Where the purchase cost represents between (60% - 70%) of the total costs in manufacturing. This leads to long-term effects on manufacturing decisions

and the identification of value-adding activities within the company's overall value chain (Degraeve et al., 2005: 3).

Based on the use of this method, a detailed analysis is made of the total costs incurred as a result of performing various activities throughout the company's total value chain. To activate the supplier selection process according to (TCO), the (ABC) method had an important role in determining the total cost of suppliers. Therefore, the integration between (TCO) and (ABC) was necessary to provide these costs in a more accurate and objective manner, thus achieving the possibility of selecting suppliers by the management in a more rational manner. Thus improving effective tools for measuring and analyzing data, presenting results, and reliable decision-making procedures, reducing budget distortion, and thus increasing the profitability of the company.

The development of management accounting has been reflected in (TCO) since (Gartner) research first suggested the (TCO) method in 1987, It has been widely accepted and used by researchers (Weber et al., 2010: 5). Some believe the use of (TOC) dates back to the Napoleonic era, in addition to the fact that companies in the forties applied (TCO) analysis between jobs, in order to understand the effect of the cost of one purchasing function on the other. But it has received great interest by researchers since the first half of the nineties of the last century, as (Ellram) is the first to face the problem of (TCO) in an organized manner (Othman, 2020: 64). As the need for external reports led the accounting system to pay attention to the information provided to management, companies began implementing electronic accounting and automating manual systems to reflect the costs incurred by the activity it turns out that (TCO) is not a new method. And it has been discussed, performed and compared with some methods for several years, it also divided the activities into value-adding activities and non-value-adding activities (Ellram & Siferd, 1993: 165).

(TCO) is defined as a tool to achieve a competitive advantage through its inclusion of strategic cost management topics to improve the decision-making process (Ellram & Siferd, 1998: 55), rationalizing production and distribution activities in contrast to the traditional methods that use simple, subjective and incomplete methods for selecting suppliers based on the purchase price only. As cost management is a strategic weapon, as it provides information on significant cost savings through the effective selection of suppliers. The determination of the optimum order quantity and the objective evaluation of alternative policies (Degraeve & Roodhooft, 1999 b: 5). This analysis expanded to be a tool for evaluating alternative offers (comparison). And continually evaluating performance and improving the production process, using information (TOC) to measure document and disclose the value represented by the offer in a way to reduce costs and compared to better alternatives (Piscopo et al., 2008: 205). Through the use extension (TOC) of the concept of ownership to include other areas of the public and private sectors, to help prepare the budget and control costs and range of activities, this affects maintenance and asset replacement decisions (Rahman & Chattopadhyay, 2010: 116).

Production companies need to adopt asset management strategy and sustainability system or improve investment life cycle profits and how to calculate asset costs. And their impact on various decisions, to arrive at an adequate assessment of the technical or technical performance of the asset, to meet the demands of global competition and changing market conditions (Roda & Garetti, 2015: 12). However, (TCO) expanded to include its developments

in consideration of the consumer, and this is confirmed by a study (Afraah et al., 2021: 198), although there are many methods of interorganizational cost however, the need to use the (TOC) obvious and important and this is confirmed by (King, 2007: 26-27)

Based on the foregoing, researchers seek to build an accounting framework through the integration of (TOC) and (ABC), and a statement of its impact on the profitability of the company and help in making the best decisions to choose suppliers. After addressing the general introduction to the research in the first section. The remainder of it will be divided into the following; in the second section, the remainder of it will be divided into the following; in the second section, reviewing previous studies and building hypotheses in the third section, the integration of (TOC) and (ABC). In the fourth section, the role of the integration of (TOC) and (ABC) on the profitability of the company, finally, in the fifth section, the conclusions.

2. Literature Review and Hypothesis Development

As a result of the increased responsibility of senior management managers to determine the costs of the procurement process and strive to improve profitability and achieve customer desires. This has modified the traditional ways in which managers conduct their business, resulting in the emergence of the concept of TCO to help reduce costs and increase profitability. As well as achieving production efficiency from designing and manufacturing products to achieve a competitive advantage and encouraging companies to build integrated relationships with suppliers and customers in the supply chain management system because it provides information on the production process to achieve corporate goals and help in making decisions and evaluating performance.

(TCO) is a tool and philosophy for understanding the total cost of purchasing a particular service or good that attempts to determine the costs associated with the quality of products purchased or services provided, It is an effective way to track hidden indirect costs associated with supplier transactions (Kanagaraj et al., 2014: 2). Where the concept of (TOC) has been a popular topic in the past decade, in the field of purchasing, denotes the concept of total cost also at total cost of ownership (TOC) or life cycle cost (LCC). Discusses purchasing books from 1928 and possibly before the importance of considering the issues related to cost beyond price in the decision to select a supplier (Ellram, 1994: 163). Therefore, several concepts have emerged to clarify the concept of (TOC) since its first appearance when it was known (Ellram, 1994: 171). As a purchasing tool and a philosophy that aims to reach the true cost of the supply relationship, and the concept has evolved to include a variety of cost elements related to the procurement process: purchase price costs, customs duties, other acquisition costs may include such as ordering costs, find supplier, rehabilitation. In addition to including costs related to the actual receipt of the order. Such as the costs of the receiving department, inspection, storage, etc. It also includes the costs of using the purchase item such as downtime costs caused by the delay, defective or incomplete shipments, warranty costs, and refunds for defective purchases (poor quality materials or components).

However, (Degraeve et al., 2000: 35), (Degraeve et al., 2005: 3) and indicated that (TOC) is all costs associated with the purchase process throughout the chain determine the total value of the company. This approach goes beyond the price to include all costs during the life of the items such as those related to service, quality, delivery, management, communication, failure, maintenance, etc. TOC can be defined broadly as the sum of costs incurred in establishing and maintaining business relationships between firms in the value chain.. Hence,

it does not only include the purchase price of equipment to manufacture the product. But also the costs of activities carried out along the supply chain and resulting from the relationships that occur between suppliers and the buyer (the company) (Nita, 2014: 77). Through this premise, it looks at (TOC) is the most reliable and appropriate comprehensive method that takes into account the actual total costs associated with the acquisition, operation, use, maintenance and sale of assets (Ewelina & Grysa, 2021: 6). That is, it is a standard method for analyzing the purchasing and operating costs of assets (Chi et al., 2021: 2) (Abed & Hussein, 2021: 5). Aim to calculate the actual cost of purchasing the product its main objective is to make better purchasing decisions by considering the issue of costs beyond price and comparing all costs associated with owning the product over its economic life (Afraah et al., 2021: 197). It means to (TOC) analyze it is to improve the joint profitability of the supplier and the consumer by modifying how they both do business together (Wouters et al., 2005: 169).

There are many ways to calculate (TOC), including classification based on cost functions (management, quality, delivery, service, communication, price). The components of (TOC) are classified on the basis of the functions performed by the cost. (Ellram & Siferd, 1993: 166) (Ellram, 1993 b: 7) (Ferrin & Plank, 2002: 19) (Degraeve et al., 2005: 4) (Jakobsen & Staavi, 2009: 25) (Nita, 2014: 78). As well as classification based on the order of occurrence this classification takes into account the chronology of costs. It is more comprehensive and deals with direct and indirect costs they are (pre-transaction costs, transaction costs, post-transaction costs) (Ellram 1993 b: 7) (Ferrin & Plank, 2002: 19) (Wouters et al., 2005: 167) (Piscopo et al., 2008: 208) (Nita, 2014: 77) (Uyar, 2014: 10) (Osman, 2020: 70). And also activity-based classification is a method of estimating all costs associated with the acquisition, use and disposal of a product during purchase (Piscopo et al., 2008: 205) (Nita, 2014: 77) (Visani et al., 2015: 3).

The application of (TOC) has several benefits, including performance measurement, decision-making, communication, awareness, and support for continuous improvement (Ellram, 1993 a: 51) (Ellram & Siferd 1993: 164) (Jakobsen & Staavi, 2009: 29). But it insults him data complexity and lack of sources, training, education, and corporate culture (Ellram, 1993a: 50). And user resistance to implementing a new method (Wouters et al., 2005: 168) (Mahmood & Hussein 2020: 6). And the need to train individuals who will adopt and use the model (Jakobsen & Staavi, 2009: 28). However, education about (TOC) regarding the importance of understanding the value of (TOC) Compared to the selling price quoted Producers can pass it on to consumers when making direct offers (Afraah et al., 2021: 206). Advances in information technology have led to reduce the complexity of reality by acting on assumptions, by including only a limited number of carefully selected cost factors, however, the (TOC) must be able to provide reliable decision support (Walterbusch et al., 2013: 615). In light of the expansion of global business markets in order to develop competitive advantage, companies frequently seek to develop new solutions for their consumers to provide joint cost savings and higher levels of quality and customers (Freiling & Dressel, 2014: 1).

As a result, researchers conclude that (TOC) it is a scalable Inter-organizational cost management tool it is a philosophy and method for calculating the full costs of purchasing a good or service. Characterized flexible and applicable to a wide variety of companies as a result of including any type of costs because of its classifications that are applicable in any system

that can provide the necessary data to calculate them to evaluate performance and help make the best decisions, in order to support the decision to select suppliers and compare them.

3. The integration of (TOC) and (ABC)

The (TOC) is all the real costs of purchasing a particular good or service it consists of price and other elements that reflect the additional costs incurred by suppliers in the purchasing value chain. So it reflects the additional costs of resource consumption for activities associated with the procurement process is derived from the activities and cost drivers that the (ABC) identifies for the company (Degraeve & Roodhooft, 1999a: 43). The use of (ABC) for selecting and evaluating the supplier allows the use of (TOC) caused by the supplier in the production process and then increasing objectivity in the selection process for the best resource (Xu, 2011: 257).

The idea of (TOC) is based on the premise that a number of activities are undertaken to deal with the relationships between current and future suppliers. The allocation of cost to such activities is very similar to the allocation of indirect costs in production processes to obtain activity-based costs (ABC) in the supply chain (Nita, 2014: 80) (Mahmood et al., 2018: 2279). This results in integration, which is defined as the interrelationships between sub-systems, so that data from one system can pass through routinely or is taken by one or more other systems, and that physical assets such as integrated information systems are important resources to manage cost management resources between companies because integrated information makes company information better (Gunawan, 2020: 90).

As a result of the need for more advanced and accurate management accounting information such as the information provided by the (TOC) method often based on (ABC), which identifies specific cost drivers, costs are allocated based on the details of the company and its operational activity. The ability to effectively identify cost drivers, and cost-reduction management to achieve a competitive advantage, because few accounting methods measure intangible costs (Flexibility, productivity, quality, timeliness) (Roodhooft et al., 2005: 2), the integration steps between (TCO) and (ABC) are defined as follows (Roodhooft et al., 2005: 4):

- Identify all activities related to external procurement.
- Then identify the factors that raise the cost of a particular activity (cost drivers).
- Determine the activities caused by each resource.

This has been proven (Piscopo et al., 2008: 213-214) to calculate a (TCO) you need to understand all the costs that purchasing generates throughout the company's total value chain. Some costs are obvious and easy to track while others are not the goal is to demonstrate the effect of purchasing on other aspects of the business to achieve such a level of accuracy in costing, also, a study (Wouters et al., 2005: 172). Found that the new information provided by the (ABC) system with its integration with (TOC) it was higher quality and more valuable to management and rationalizing its decisions, it was also found that there is a positive and moral relationship between the information resulting from this integration with the satisfaction of those in charge of implementing (ABC). This result indicates that the quality of (TOC) information will be an important factor for accreditation, bearing in mind that obtaining high quality (TOC) data is an important challenge. Where the integration between (TOC) and (ABC) is measured in order to explain the application of activity-based (TCO) along the value chain. This requires the formation of a useful methodological framework to carry out the analysis and interpretation of costs according to what is required for the concept of integration (Weber et

al., 2010: 14). Therefore, the purchasing costs incurred are divided into several levels by defining the activities of each level, and then determining the cause of the cost. For example, purchasing costs are divided (product management, purchase, order shipping, receipt, quality) are divided on several levels (unit, batch, order, component, supplier) and then determining the cost cause for each level to reach the (TOC) calculation (Weber et al., 2010: 8) (Hussein et al., 2018: 2661). Thus, the integration between (TOC) and (ABC) includes its own activities and causes:

3. 1. Activities according to (ABC) Contribution to the Application of (TOC)

The (ABC) method is a starting point for understanding and analyzing (TOC) considering that (TOC) is based on the premise that many administrative activities are carried out for transactions between suppliers and buyers, and that the allocation of costs to those activities is very similar to the allocation of indirect costs to the product (Osman, 2020: 77). Therefore, when determining the total costs according to (TOC), the activities contributing to the (TOC) must be identified for each cost component. And the activities according to the (TOC) analysis are (supplier selection, order management, delivery and unloading arrangements, material handling, administration and accounting) (Visani et al., 2015: 2). Department (Uyar, 2014: 10) of college (TOC) into three levels are (pre-transaction costs, transaction costs, post-transaction costs). Then define the activities according to this classification on three levels it is at the level of (demand, supplier, unit), where the buyer can get a flowchart of the supplier's activities during the production process from the time the order is received to the time it is shipped (Gorbunova& Moisello, 2008: 18). This classification is the most comprehensive because it considers all activities regardless of the type of activity.

3. 2. Causes of Cost According to (ABC) Contribution to the Application of (TOC)

The selection of the appropriate cost driver can generate an effective management response, as the effective selection of the cost drivers can focus on management's attention to the features of the process that create cost and these causes are measurable by appropriate measurement methods (Ferrin & Plank, 2002: 19). The (TOC) method has received a great deal of attention as an effective way to track indirect costs associated with supplier transactions, however, (TOC) analysis limits the technical selection of cost drivers to determine the cost of operations more precisely and objectively (Zachariassen& Arlbjørn, 2011: 448- 449). Each level must use its own cost driver (number of suppliers, products, orders, number of units) (Roodhooft et al., 2003: 32).

Costs are often collected and distributed based on production units and direct labor hours, or some other factor rather than depending on the relationship between cost and activities performed, in product costs, the (TOC) method is used to allocate storage costs, wages and other costs incurred based on the activities performed (Elram& Siferd, 1993: 164). As the use of a single cost driver cannot model the computational process of the firm especially if the activities are heterogeneous and contain multiple different subtasks (Zachariassen& Arlbjørn, 2011: 452). As a result of this, the cost drivers of different activities are gradually determined to obtain a proportional distribution of the cost to provide a framework for understanding the behavior of costs in line with (ABC), where the cost drivers are divided based on the levels of activities, as follows: (Abdul Latif, 2018: 459)

- Unit level: It is related to the number of units per purchase order.
- Cost drivers at the batch/order level.

- Cost drivers at the supplier level: It arises when choosing a new supplier to deal with.

Based on the foregoing, it is possible to define the framework of integration between (ABC) and (TOC) according to the foundations of dependence carried out by the latter on the (ABC) method according to the activities and causes of this method, table (1) shows the bases of integration.

Table (1): Integration of (TCO) with (ABC)

Information (TCO)	Activities	cost driver
pre-transaction costs	supplier-level activities	
Costs for detailed purchasing needs	negotiating activity	Negotiation costs
Costs of examining and studying alternatives	Supplier Relationship Management Activity	Contracting costs and follow-up
transaction costs	ordering-level activities	
price	Purchasing activity	Purchase orders
Purchase order issuance costs	ordering activity	Purchase orders
unloading costs	Payment activity and credit notes	number of materials
Receipt costs	Receiving activity	Purchase orders
Conformance costs	Rejected Quantity Refund Activity	Purchase orders
Refund costs for non-conforming purchases	Refunded activity	Purchase orders
Follow-up and examination costs	examination activity	number of materials
post-transaction costs	unit-level activities	
Low quality costs	Production activity (detecting damaged units/restarting)	number of units
Warranty costs	Warranty activity	number of units

Source: Table prepared by researchers

From the table (1), note that each type of classification of the (TOC) has certain costs, but these costs are determined based on the activities that have been divided into three levels (resource, batch, unit), by adopting cost drivers, especially for each level, which leads to the allocation of costs according to the integration accurately and more objectively. However, this measurement varies from company to company, this depends on the policy adopted for calculating costs along the supply chain, the type of method used, as well as the type of products required to be available.

Despite the many differences, (TOC) can give accurate results about costs in a company that applies it. Which means that (TOC) can be applied in any company according to any type of products and activities. This is because its measurement method is fixed and is based on (ABC), that is, allocating ownership costs to activities first, and then to allocating them to products.

Whereas, the preferred method for calculating (TOC) is through activity-based costing (ABC). In fact (TOC) has sometimes been described as "an application of (ABC) concepts and

tools". To determine the sources of decisions (selection and evaluation of suppliers) due to the importance of (ABC) in (TCO) accounts. Being a more efficient way to identify low-cost suppliers and price compared to traditional standard methods, (TCO) without the (ABC) be a method of limited value, because the methods for allocating costs to suppliers are not clearly tracked as they are non-quantitative in nature (Visani et al., 2015: 3).

Where the objective of this integration was to determine the trade-offs between all the different costs that occur within the purchasing department and other departments of the purchasing company and the supplier company. Because (TOC) is a way to obtain benefits (ABC) (Wouters et al., 2005: 183). In order to provide a comprehensive and integrated approach to TOC analysis (Elram & Siferd, 1998: 58), it is based on a monetary index and uses the proprietary method, and the components of the (TOC) are determined based on the (ABC) method (Gorbunova & Moisello, 2008: 22). To take into account all the activities undertaken by the company to manage the supply relationship (Visani et al., 2015: 1). As well as the direct and indirect costs of operations necessary for business relations with suppliers as they are related to management accounting analysis, it aims to obtain the total cost of supplier relationships by relying on the activity-based costing method (Shabani et al., 2019: 57).

As the use of integration in the decision to choose a supplier has several advantages (Degraeve et al., 2000: 36):

- Determining metrics and comparison between suppliers is no longer a problem when making any purchasing decisions because the objective function is the total cost of ownership (TOC).
- (TOC) enables access to objective cost measures in a systematic manner, which gives (TOC) an advantage over other methods.
- (TOC) enables companies to develop managerial opportunities based on organizational activity with the emergence of the importance of close relationships between buyers and suppliers.

The decision to select suppliers is one of the important types of administrative decisions at the procurement stage. The goal of this stage is to find the best supplier, not necessarily the supplier that offers the best technical service, the lowest price, or the shortest delivery time. Hence companies must take into account several criteria in their attempts to differentiate the items that have been offered by potential suppliers, in this study, the company's profitability will be measured by adopting the supplier's profit margin through the integration information (TOC) with (ABC) represented by (pre-transaction costs, transaction costs, post-transaction costs) depending on the appropriate cost drivers and activities.

4. Integration between (TOC) and (ABC) and the company profitability

The interest of traditional accounting systems with regard to profitability was limited to providing information on the cost of production and inventory. As a result of the increasing requirements in the business environment, this led to reliance on new, advanced and contemporary accounting systems for the environment, including the integration between (TOC) and (ABC). As a result, this concept is related to costs and has value-added information for all parties who use the financial statements, and it has a role in reducing costs. This is the goal that companies seek to increase the profitability of the company. Which is a measure of financial performance that measures a company's ability to generate profits (Wibowo, 2012: 376).

The fact that integration evaluates and rationalizes costs by studying and analyzing activities and drivers by adopting comprehensive costs and trying to get rid of non-value adding activities thus maximizing profitability. There is no doubt that the aspect related to costs, whether administrative or production, receives a large share of this attention. As they are considered appropriate measures for decision-making and performance measurement in the company, as the cost data provides the company's management with sound foundations for improving production efficiency and distributing available resources to its highest profitable operations, which helps to rely on making sound decisions and avoiding personal judgments (Abu Moghli, 2008: 29). Thus, profitability is the measure of the effectiveness of the investment company's management policies, financial and operational decisions and decisions made in connection with these policies, profitability ratios reflect the overall performance of the company. It unifies the impact of most management decisions, verifying the company's ability to generate profits from sales, assets and equity, which are as follows:

- **Profit Margin on Sales:** This ratio reflects the efficiency of management in achieving profits

$$\text{Profit Margin On Sales} = \frac{\text{net income}}{\text{Sales}} \times 100\%$$

- **Basic Earning Power:** This ratio indicates the ability of the firm's assets to generate operating income.

$$\text{Basic Earning Power} = \frac{\text{Earnings before interest and taxes}}{\text{Total assets}} \times 100\%$$

- **Return on Equity:** This ratio reflects the profits that the enterprise achieves as a result of investing the shareholders' money in it, as the high ratio indicates that the enterprise achieves appropriate returns for the right of ownership.

$$\text{Return On Equity} = \frac{\text{net income}}{\text{Equity}} \times 100\%$$

- **Return on Assets:** It is the ratio of net income to total assets and measures the return on total assets after interests and taxes, the high ratio indicates the efficiency of the company to use its assets.

$$\text{Return On Assets} = \frac{\text{net income}}{\text{Total assets}} \times 100\%$$

Since this ratio is considered one of the ratios of general use. Which can be used to measure profitability in various activities, whether industrial, commercial or service, therefore, they will be adopted as indicators to measure profitability. However, profitability depends not only on the company's actions but also on the actions of the competitors and the potential actions of the competitors on the strategies that are used. Thus the intensity of competition within an industry depends on the extent to which the cost structure of firms allows them to compete in the long and short term, the greater the competition for a greater share of the industry's profits, the lower the profits of the industry that can be spent (Muli& Pellissier, 2014: 2).

As a result, researchers conclude that integration has a role in increasing the profitability of companies through the use of costs (pre-transaction costs, transaction costs and post-transaction costs) from (TOC), and use activities and drives of different types depending on the type of the company's special system of (ABC) to achieve this integration between the

two systems. And take advantage of this information to choose the best supplier among a group of suppliers, by choosing the supplier with the lowest total cost of ownership without relying solely on price. As a result of choosing the best supplier, this leads to the selection of the least expensive, high quality and on time suppliers, which reduces the costs incurred by the company because the costs have been calculated in an objective and free from distortion and within the value-adding activities only. Thus it ignores non-value-adding activities, which leads to lower costs and thus increases profitability for the company, Figure (1) shows the relationship between the variables, which is as follows:

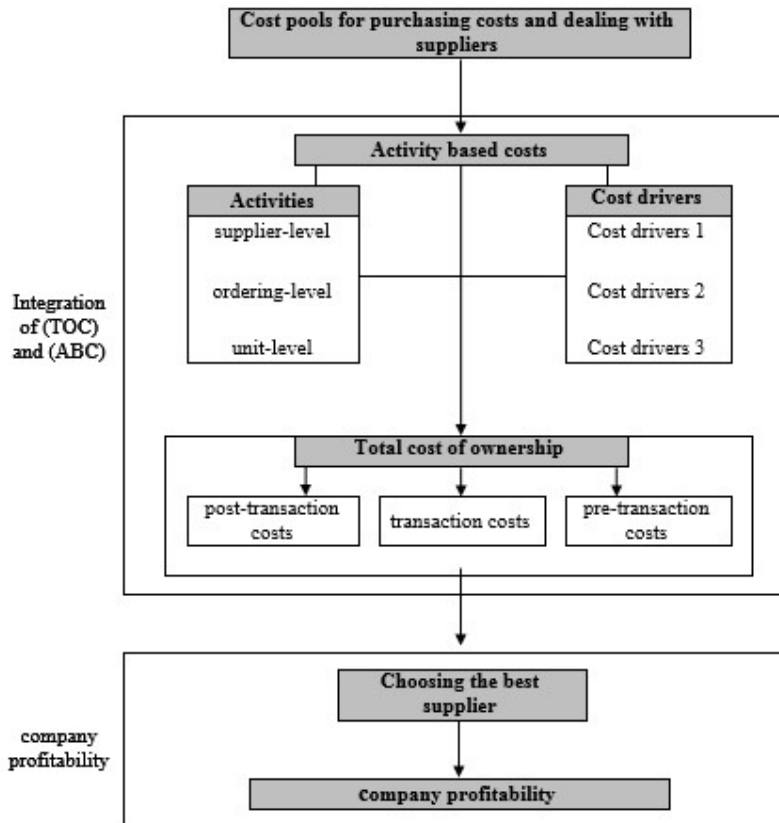


Figure (1): The relationship between the variables

Source: Figure by researchers

From the Figure (1), it becomes clear the importance of integration in choosing the best supplier, it requires identifying all purchasing costs necessary to evaluate alternative offers to suppliers and their use, and identifying the activities of these costs. That have been implemented in different places within the production process, and through the value chain with suppliers. To demonstrate the role of (TOC) on the profitability of the company, the most appropriate supplier must first be selected from among a group of suppliers, by calculating the total costs without relying on the purchase price only, whether they are pre-transaction, transaction costs and post-transaction costs. By adopting the appropriate activities and cost drivers for each cost element, and then calculate the profit margin ratio and choose the supplier that has a higher profit rate than other suppliers.

According to a study (Uyar, 2014) that adopting the purchase price only as a basis for choosing the best supplier leads to distortion of decisions and inaccurate selection, and thus

increasing the costs borne by the company. Because if the price is adopted only the other cost components will be deleted and thus reduce the profit margin, and to calculate the profitability of the company, the following equation is used:

$$\text{Gross Profit Margin} = \frac{\text{Profit of Sales}}{\text{Gross Sales}} \times 100\%$$

Having a higher profit margin encourages the company's strength against competitors, and this event has a long-term impact on the company's success, which depends on the financial performance. Thus, reliance on suppliers of higher profit margins leads to increased profitability, and that the calculation of costs according to the integration between (TCO) and (ABC) leads to reducing the cost and reducing the distortion of the budget and the adoption of accurate cost data for each resource. Then the most appropriate supplier is selected, which leads to an increase in the profit margin, which means an increase in net profit, and then it will lead to an increase in the company's earnings per share.

5. Conclusions

As a result of the internal changes in companies and the change in the method of calculating production costs, especially with regard to the cost of suppliers, this led to the development of accounting systems, including the (TOC) method, to be more accurate in allocating cost. As well as choosing the best suppliers, rationalizing decisions and developing cost management concepts to be more comprehensive and integrated by integrating it with the (ABC) method, by allocating total costs of ownership to activities by adopting appropriate cost drivers.

The integration between (TOC) and (ABC) is one of the methods to assist in the selection of suppliers by allocating the cost to value-adding activities. Which gives an accurate allocation of the cost and thus reduce it and increase the profitability of the company, as the main objective of the company is to maximize the company's profits to grow its money, increase achievement, achieve customer satisfaction and speed within purchasing transactions. To achieve this, the integration information between (TCO) and (ABC) can be used to achieve high efficiency within purchasing activities as it helps in gaining an understanding of long-term systems for the actual cost of doing business such as increasing profit and efficiency. Because it depends on several criteria including price, quality, reliability, delivery and deleting non-value-adding activities and others in order to reduce purchase costs. Thus, (TCO) provides a great opportunity for companies to achieve profitability success and thus can improve the cost structure of the company regardless of the type of cost classification used companies can achieve profitability by adopting the integration between (TCO) and (ABC). Because its goal is to reduce cost, and whenever the cost is reduced, the profitability of the company increases. The profitability of each resource is calculated through the percentage of the profit margin. The higher the margin percentage, the greater the profit achieved for the company, and thus the increase in the net profit, which leads to an increase in the profitability of the share and thus maximizing the profitability of the company.

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