



Review paper

A Comparative Study of Traditional and Activity-Based Costing Methods for Cost Allocation in Business Practices

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ABSTRACT

Allocating direct and indirect costs has remained a contentious issue in the field of management and cost accounting for several decades. Existing studies have identified two key techniques for allocating these two costing elements: traditional costing technique and secondly, activities-based costing technique. Therefore, it remains unclear whether the traditional-based costing technique is superior to the activity-based costing technique. The current study is thus poised to investigate a comparative study of traditional and activities-based costing techniques using some existing studies as research methods. In this current study, different research on existing studies on this topic in the literature were reviewed. Over ten peer-reviewed journals were downloaded, and the findings, conclusions, and recommendations were synchronized into the current study to unravel the current state of knowledge on comparison between traditional and activity-based costing techniques for allocating direct and indirect costs. Therefore, the study concluded that the activity-based costing method gives management more detailed, meticulous, accurate, worthwhile, and objective information in the decision-making process than the traditional costing method. It is therefore recommended that businesses should consider an activity-based costing technique in allocating the costs because of the inherent benefits it presents to business practices.

1. Introduction

According to Sarokolaei et al. (2012), the activity-based costing technique is believed to be one of the new costing techniques in which the data cost is differentiated between valuable that is valid and in-valuable or invalid activities.

Furthermore, according to Patricia Quesado and Rui Silve (2021), activity-based costing came into existence because of the limitation of the traditional costing system in terms of the financial and technological involvement regarding arbitrary allocation of indirect costs. This necessitates the need for a costing system in an organization to combat the inadequacy of the allocating system to achieve an accurate, efficient, and effect-



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ive decision process. Under the traditional costing method, overhead costs are distributed based on direct labor hours or machine hours to products, whereas activity-based costing allocates overhead costs based on resources consumed by each activity in the product.

The activity-based costing method involves the correct cost of a product, which is a core aspect of all organizations, such as manufacturing or service organizations. Activity-based costing is an alternative to traditional costing that first came into existence to reduce the arbitrary allocation of indirect costs to products or services. The activity-based costing method is an accurate method compared with the traditional costing method for measuring the cost and performance of activities and the cost objects (Babaaddoun Messaoud & Ait-Mohammed Mourad, 2021).

Research Purpose

The current study has potential benefits to both the business and professional practice in accounting. It also has the tendency to increase the frontier of knowledge as it will add to the existing body of knowledge in management and cost accounting subfields. Cost allocation methods help management make decisions when there is a need for cost reduction, product pricing strategies, and resource allocation. Also, how and when to apportion expenses across different departments, products, or services for efficient and effective resource management. It ascertains economic balance, thereby reducing the risk of cashflow chaos.

The cost allocation method assists management in budget allocation by providing more accurate forecasts of upcoming disbursement, Cost allocation helps to ascertain whether a department is making a profit or not or if the production of a product should be placed on hold to reduce wastage and idle time, if any.

2. Review of the Literature

Traditional Versus Activity-based Costing Techniques

Several works have been done along this line of study to clarify the concepts of traditional costing and activity-based costing methods as techniques for allocating direct and indirect costs, especially in the manufacturing sector. For instance, Babaaddoun & Ait-Mohammed (2021) conducted a study on a topic entitled "The comparison between Activity-based and Traditional costing" of manufacturing corporations in Algeria. The study aimed to suggest that activity-based costing as an alternative option to traditional costing techniques. The cost of production was determined by adopting traditional methods, which gave a cost of production of 542.00da, and this amount appeared to be greater than the cost of production stated by the activity-based costing method of 468.892da. The variation of 73.108da was reported to have a negative effect on the organization's performance profitability and engendered competition. Therefore, the study concluded that the Activity-based costing method was more accurate and reliable because it presented a more efficient, precise, and objective approach to the costing method in the manufacturing sector than the traditional costing method.

The activity-based costing method positively enhances the operational process of the organization, not minding the resources and costs, which eventually increases the profitability of the organization (Babaaddoun Messaoud & Ait-Mohammed Mourad 2021).

The activity-based costing method is one of the methods used to remove the inadequacies and shortcomings of the traditional costing method.

The Activity-based costing (ABC) method, compared with the traditional costing method, is easily capable of estimating and evaluating the effect of new methods on calculating 11222 Afr. J. Bus. Manage. Services' costs because it uses different principles. The activity-based costing method considers the new philosophies of managers in product costing. The new philosophy of managers emphasizes more, in the satisfaction of customers and competition with other organizations internationally. Despite the traditional costing methods, ABC can also be used in sophisticated and unusual service systems. Although this method was first developed in outstanding production organizations, its positive results inspired servicing organizations such as banks, other financial entities, and even research centers to use it. Helpful and suitable results were achieved afterward. In these cases, the system uses two types of new cost variables. They are the cost related to the intricacy of services and the cost-of-service variety in the cost structure. These outstanding characteristics have caused the gradual increase of the users of this system and its different usages in a way that, nowadays, organizations internationally consider achieving and making benefits of the capabilities of this method, which is examined to be an outstanding advantage for their organizations. The activity-based costing system helps to calculate the cost of units and sections and deposits of the banks assuredly and correctly and creates more efficiency and effectiveness. Using this system forces the financial entities to achieve an exact view of the profitability of the sections and their different services. Although the costing system is used more in production industries, the need for this system is felt more in banking industries because the products and

services of the banks are more varied, and they become complicated more and more every day. Traditional costing methods deal with estimation in cost allocation; it is not particular about why or where cost occurred. The method is not flexible, not accurate and often not timely.

In another study conducted by Lenka (2023) titled "Advantages and Suitability of Activity-Based Costing: A Study from Engineering Industry". The objective of the study is to evaluate the pros and cons of costing methods for organizations in the engineering sector. The study was carried out in Slovakia and Czechia, and the traditional costing method was compared with the activity-based method. The study looked at the rationale for changing to the activity-based costing method and the rationale for continuing to use the traditional margin costing method. According to the study, Czech companies perceived problems with assigning cost base significantly more than Slovak companies, and up to 3.1% of companies do not recognize the determination of cost allocation base as a disadvantage of the traditional cost method, while Slovak companies recognize this same percentage as a problem.

Another outcome of this study showed that larger businesses prefer using activity-based costing methods to small and medium-sized companies because they are usually unable to opt for newer cost accounting practices as the business environment changes. Also, the activity-based method shows the exact reason for the cost and that the pricing cost is more accurate.

Conclusively, the study shows that as much as both Slovak and Czech engineering companies support activity-based costing method. The study confirmed that engineering companies identified that activity-based costing demands time to use but is still preferable to traditional costing methods.

Furthermore, in a study by Mahesha (2022) titled "A Comparative Study of Activity Based Costing and Traditional Costing As A Fragment of Pricing". It pointed out the importance of cost allocation, which is for the decision-making process (internal usage) or valuation purposes (external usage). According to research, the traditional costing system is more connected with the general ledger system, and typically, this linkage is based on cost allocation, while activity-based costing is concerned with cost and performance activities, resources, and cost objects. The objective of the study is to illustrate the application of the activity-based costing method and compare the results with the traditional costing method, and the conclusion is that the activity-based costing method successfully joins the product cost to production knowledge. The period it takes a product to produce and the cost incurred in the production are all the answers obtained by using the activity-based costing method. Also, the activity-based costing method is effective in keeping track of the hidden losses and profits of the traditional costing method.

Amalia & Febrian (2022), in their study titled "Comparative Analysis of Activity-based Costing and Traditional Methods in Determining Basic Rooms in Didu's Homestay Banyuwangi" compared both traditional costing method with the activity-based costing method for computing the fundamental rate for homestay room business. The study used three stages for data analysis:

1. Using traditional costing for computing the cost of renting the room.
2. Using the activity-based method for computing the cost of renting the room.
3. Comparison of the cost of using both traditional costing method and activity-based costing method for computing cost of renting room.

The result shows traditional costing methods have IDR 206.66, and the activity-based costing method has a cost of IDR 339,166. The activity-based costing method is higher than the traditional costing method by IDR 167,500. The activity-based costing method exhibits a higher rate due to a more detailed computation; it abstains from the risk of loss that is concealed, and each activity is computed as a cost.

According to the study carried out by Muhammad (2024), it investigated the theoretical foundation of activity-based costing method and how they addressed the setbacks of traditional costing methods by allocating overhead costs based on activities and cost drivers. The study disputes that knowing the activity-based costing method theoretical foundations is crucial for effective and efficient organizational preference and enhancement of its strategic decision-making process.

The study concluded that activity-based costing is a significant development of the traditional costing method. It accords a boost in cost allocation and tracking costs to activities cost objects. Though the application of the activity-based costing method stays vigorous, it still gives an accurate strong match for commanding cost behaviors and improving managerial decisions. This makes the activity-based costing method more suitable as it provides detailed and accurate cost information and adds to the organization's development and improvement.

Anton (2022), in his study, compared the profitability of data of an accounting service organization's profitability by sorting them according to the contribution to profit using both activity-based costing and traditional costing method.

The outcome showed that the activity-based method gave more meticulous and objective opinions to the decision-making process than the traditional costing method.

Using the activity-based costing method enhances the conviction that overheads are allocated more precisely on actual consumption form. The activity-based costing method gives more accurate and detailed information to the management to validate different financial rewarding decisions.

In the study conducted by Alami, D. & ElMaraghy, W. (2020), the two costing methods, the activity-based costing method and traditional costing methods, were examined on how machine annual hours are impacted by the number of hourly rates and vice versa using data from a local manufacturing firm matching it to ascertain the appropriateness of each costing method to the job shop environment. The study used a mathematical programming model designed to decrease the overall cost of production, taking into review adjustments in machine hourly rates. The results of the study showed that the activity-based costing system gives a higher competitive edge with respect to the hourly rates, which gives the manufacturing firms a preferable edge over the competitors.

The relevance of this study gives managers in manufacturing organizations significant, accurate, and effective decisions on which orders to take at a particular time to reduce labor costs to produce the order. According to the research, this will ultimately give the organization an edge in hourly labor rates in comparison with competitors.

In another study by White, L.R. & Clinton, B. D (2024), they investigated the effectiveness of the activity-based costing method in modern manufacturing organizations which was carried out via different method approaches, among which are literature review and case study analysis focusing on augmenting cost accuracy and decision-making process.

The study compared the outcome of using activity-based costing methods with traditional costing methods in manufacturing organizations. The outcome showed that the activity-based costing method gives more accurate overhead rates and cost allocation than the traditional costing method. This outcome results in a better profitability rate for products. The analysis shows the advantages of an activity-based costing method in allowing a greater resource distribution, appropriate pricing policy, and product portfolio optimization, in doing so, it increases the competitiveness and profitability of modern manufacturing organizations. Nevertheless, the study mentioned the complexity of the implementation of the activity-based costing method and suggested the need for more training in it.

3. Methodology

Achival research methodology was adopted in this study as we extensively explored the concepts and frameworks of traditional and activities-based costing techniques concentrating on some existing studies as foundations for our work to allow us increase frontier of knowledge along this line of research. In the current study, different research outputs relevant to the current study in the literature were reviewed. Over ten peer-reviewed journals were downloaded, and the findings, conclusions, and recommendations were synchronized into the current study to unravel the current state of knowledge on comparison between traditional and activity-based costing techniques for allocating direct and indirect costs.

4. Practical application

Due to the accuracy and other advantages of the activity-based costing method known from the studies used for this research, activity-based costing is being used in different organizations. Some of these are below:

- It distributes overhead costs based on the actual usage resources consumed by each activity and gives directives for enhancing the optimal operational achievement of the organization.
- It is effective in detecting concealed losses and profits, unlike traditional costing methods.
- It assists organizations in decision pricing strategies, optimizing processes, and overall profitability by providing detailed and accurate information to the management.
- It gives the manufacturing organization a dynamic edge over rival organizations due to the reduction in the cost of hourly rate.
- It allows a better pricing plan in a situation where an organization needs to accurately determine the cost of each product or service, which enables businesses to understand the true total cost of the product or service.

5. Conclusion and Recommendation

Despite the shortcomings of the activity-based costing method of the complexity and expensive to implement, as mentioned in the studies, the activity-based costing method is embraced to be advantageous over the traditional costing method. It gives management more detailed, meticulous, accurate, worthwhile, and objective information in the decision-making process, especially regarding pricing, product mix, and cost

reduction strategies, than the traditional costing method. Also, the activity-based costing method gives a more explicit breakdown of indirect costs than the traditional costing method.

The different studies used in this research cut across many sectors, including manufacturing, hospitality, hospital, and hotel. They cut across many countries, Canada, the United States of America, and Pakistan. They all concluded the activity-based costing method to be of higher significance than the traditional costing method.

The goal of any organization is to maximize profit and minimize costs. Based on this research, the activity-based costing method serves this overall objective more than the traditional costing method. The activity-based costing method shows the total cost, which enables the management to know if cost expenses meet the overall goal or not and take the necessary action on it.

Therefore, it is therefore recommended that organizations should embrace the activity-based costing method on their cost allocation rather than the traditional costing method for a more effective and efficient decision-making organization.

References

1. Alami, D & ElMaraghy, W (2020). Traditional and Activity -Based Aggregate Job Costing Model. *Industrial and Manufacturing Systems Engineering*, University of Windsor, 93,610-615
2. Amalia, F.R., & Febrian, A. W (2022). Comparative Analysis of Activity-Based Costing and Traditional Methods In Determining Basic Room Rates in Didu's Homestay Banyuwangi. *The International Journal of Applied Business*, 6(1), 52-66
3. Anton, C.E (2022). The Activity-Based Costing Method Applied to The Analysis of The Clients' Profitability. *Bulletin of The Transilvania University of Brasov*, 15(64)
4. Babaddoun Messaoud, Ait-Mohammed Mourad (2021). The Comparison Between Activity-Based Costing and Traditional Costing That Practiced in Algerian Manufacturing Corporation. *International Journal of Economic Performance*, 04(03)
5. Ebrati (2012). A Comparative Study of Activity-based Costing System and the Traditional System: A Case Study of Refah Bank. *African Journal of Business Management*, 6(45). 11221-11230, ISSN 1993-8233.
6. Lenka Hudakova Stasova (2023). Advantages and suitability of Activity-Based Costing: A Study from Engineering Industry. *Central European Business Review*, 12(4)
7. Mahesha, V (2022). A Comparative Study of Activity Based Costing and Traditional Costing as A Fragment Of Pricing. *Saarj Journal on Banking & Finance Research*, 11(2)
8. Mehdi Alinezhad Sarokolaei, Mohammadreza Ebrati, Vahid Taghizadeh Khanghah, and Mina
9. Patricia Quesado and Rui Siva (2021). Activity Costing (ABC) and Its Implication for Open Innovation. *Journal of Open Innovation: Technology Market and Complexity*, 7(41).
10. Muhammad Saleem Ullah Khan (2024). Exploring Theoretical Foundations of Activity-Based Costing. *International Journal of Research and Innovation in Social Science*, 8(3s) 2953- 2965
11. White, L. R.& Clinton, B. D (2024). Evaluating the Efficiency of Activity-Based Costing in Modern Manufacturing Enterprises. *International Journal for Multidisciplinary Research*.