



# Problems Caused and Solved by Activity-Based Costing in Development and Dissemination

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**Abstract.** The Activity-Based Costing (ABC) method is widely utilized and expanding globally. Due to the intricacy of the operational process, however, a large number of businesses avoid employing this costing method. The purpose of this study is to evaluate and discuss the pertinent literature to investigate the benefits and drawbacks of activity-based costing in solving the cost estimation problem, as well as its advantages over traditional methods. This study claims that ABC is better adapted to a complicated and ever-changing market environment and sophisticated production methods. In addition, this article recommends additional research that focuses on the efficacy of activity-based costing in improving managerial accounting and cost control and facilitating its global deployment.

**Keyword:** Problems caused and solved by activity-based costing in development and dissemination

## 1 Introduction

ABC is gaining popularity as one of the most innovative costing approaches of the 21st century [1]. Many academic studies have been conducted in this field during the past few decades. Companies must choose cost accounting techniques that make sense in a highly competitive industry. The ABC approach helps organizations examine expenses by identifying cost-creating activities, regulating value-creating activities by limiting non-value-creating activities, and ultimately boosting financial performance [2]. Nevertheless, the majority of current research focuses largely on the quantitative level, without a qualitative analysis of ABC's applicability across all industries. This article aims to explore the factors that have driven the growth and dissemination of activity-based costing in recent years, as well as its effects on corporate management, the difficulties it addresses, and any unintended results. This essay is based on previous literature research, a synthesis of scientific theories, and critical analysis. The research reveals a number of crucial factors that can aid ABC in expanding internationally, enhancing its applicability to complex procedures and changing settings, and assisting businesses in recognizing ABC's commercially advantageous role.

The remaining sections of this article are separated into four chapters and grouped as follows. Section two discusses the definition, history, and evolution of the operations

cost approach. Section three focuses on development factors, management implications, solved problems, and ongoing concerns (strengths and weaknesses). The conclusion section summarizes the limitation of ABC is that it is more suitable for complex production systems and unstable economic environments.

## 2 The Emergence and Development of Activity-Based Costing

In the worldwide, highly competitive, modern manufacturing sector, high productivity is one of the most important factors for gaining a competitive edge, which necessitates a reduction in costs. Moreover, cost reduction is a strategic objective for businesses. To do this, it is essential to practice great cost management in order to more correctly estimate the various production expenses. ABC is a popular method since cost estimation methodologies are continuously updated and enhanced. The method's major justification is to model how an organization's resources are utilized through its activities and to link the costs associated with those activities to outputs such as products, customers, and services [3]. ABC has two methods for dispersing overhead costs. One is the allocation of administrative expenses to the pool of activity costs. The second is the allocation of overhead expenses among cost categories based on the activity ratio derived from the cost pool. Products are said to incur costs proportional to the activities they consume, as the activities themselves incur costs [1].

The primary differences between the ABC technique and the standard method [4] are how cost pools and cost drivers are defined and how they are used to allocate costs to activities at the structural level. Conventional cost allocation strategies are founded upon direct labor expenses, material costs, and processing hours. Besides, innovative activity-based costing bases its calculations on orders, production units, labor hours, and equipment hours. This costing method utilizes activities as the accounting unit, verifies and measures the number of activities utilizing cost carriers, and then allocates overhead expenses proportionally to the number of activities. According to the literature analysis, the two techniques differ in five key areas: the basis for defining indirect costs, the reliability of the data, the methodology utilized for production and quality control, the allocation criteria, and the application requirements [3]. As a result, this innovation has enhanced the adaptability, precision, and logic of costing.

ABC's broadcasting history dates back to the 1930s. Kohler coined the phrases activity, activity accounting, and accounting in the first dictionary aimed at accountants [3]. It was more influential in shaping the theoretical foundations of activity-based accounting despite a lack of clarity in both theory and practice. Progress in this area of study has accelerated in recent decades. Activity Costing and Input-Output Accounting by Stoves provides a deeper dive into the activity centers and cost components [1]. This study also contains the first extensive theoretical analysis of ABC. Since the 1980s, when the organization first began promoting ABC, the system has been in place and used by millions. ABC's fundamental tenet was to better and restructure a company's production processes by rationally allocating overhead costs, sourcing expenses in accordance with cost drivers, and efficiently regulating activity costs [5]. ABC has a good effect on the management and cost control of the company. And the use of this method has a wide range of applicability. The effectiveness of ABC and its positive effect on enterprise management make it accepted by other industries and countries.

Because of its continued growth and dissemination, ABC is considered to be useful in both academic and professional settings. Turney has done extensive research on the theoretical underpinnings of activity-based accounting, specifically the principles of activity scope and cost variables [6]. He links activity-based costing and the original management accounting system. This is essentially a reflection of the fact that the ABC model is being adopted by a wide variety of enterprises outside of the manufacturing sector. For example, it is used in the aircraft industry, the automotive industry, the military, and the electronics industry [3]. Furthermore, during the 1980s, ABC systems spread rapidly from the United States to industrialized European and American countries. It is understood, however, that ABC is not universally adopted and that there are differences between areas, industries, and companies. ABC has been adopted more slowly and at lower rates in developing countries than in more developed countries [1].

### 3 ABC's Benefits and Drawbacks in Development

Groot found that there was a strong correlation between industrial characteristics and ABC uptake across countries [7]. Researchers have looked into the major impacts on ABC diffusion and adoption because of the reality of various degrees of ABC diffusion and adoption. Because there weren't many differences between countries when ABC initially became popular, it had a fairly international perspective. Furthermore, ABC adoption was positively correlated with the cost structure and product differentiation, and negatively correlated with size and organization type. This research suggests that organizational issues, rather than technological ones, play a more significant role in influencing the use of ABC in the workplace. In addition, there is a lack of studies examining how effectively ABC may be implemented in developing countries. Many countries in Asia and Africa, for example, are barely mentioned at all [1]. The lack of theory may account for the low rate of ABC adoption and spread in these countries.

There needs to be an investigation of whether or not ABC can be successfully implemented once it has already been put into place. Organizational, historical, and technical elements all play a role, although in varying degrees. Numerous researchers from a wide range of countries have found minimal evidence linking technological difficulties to the adoption of ABC. They also believe that ABC's potential success in the workplace is heavily influenced by organizational and environmental factors. Having management support and adequate personnel training was cited in the UK as essential to the success of ABC. The success of an ABC implementation can be affected by factors such as internal communication systems, managerial backing, and employee loyalty, as was found in a case study of a renowned Chinese manufacturer. Management backing, employee benefits, and objective metrics for success all play a role in why so many Malaysian businesses have embraced activity-based costing [1]. Thus, previous research suggests that internal firm characteristics and the external social environment play significant roles in deciding whether or not ABC is successfully adopted in multinational corporations.

ABC's managerial efficacy as a global program is clearly correlated with the financial performance of firms. Profitability, competitive advantage, and return on investment are just some of the financial metrics that can be boosted with its help. There are two components to this. One goal is to speed up product development while simultaneously

decreasing costs and improving quality [8]. The second is that it supports better product management and pricing strategies [9], demonstrating that ABC provides up-to-date cost information, increases firm profitability, and undoubtedly helps managers save costs and maximize economic benefits. ABC enhances management's ability to monitor, control, and supervise employees. Effective management is a key factor in a company's ability to achieve outstanding financial results. The favorable and mutually beneficial connection between ABC and performance is so often observed. While this approach does not challenge ABC, it does not defend the management process from the constraints that ABC imposes.

The ABC method improves management efficiency, provides reliable cost data for strategy development and decision-making, and allows for finer-grained control over indirect cost targets. Its purpose is to tally up the price of all the materials and labor that went into making anything [3]. For example, the most labor-intensive tire repair shop was unprofitable under the traditional strategy because of the restrictions placed on the allocation of labor hours in terms of overhead, leading to a decrease in enthusiasm among the shop's manager and staff. The use of activity-based costing enhanced the tire shop's profits, helped other repair shops more accurately predict their costs and improved the efficiency with which they allocated their overhead [8]. The company's earnings doubled as it improved its pricing criteria and decision-making processes and made them more accessible to its staff. To adapt to the ever-changing needs of the modern world, businesses need access to data on actual spending, which ABC provides. This allows the firm to make accurate cost projections and allows for the organization to be more nimble when it comes to pricing. As a result, ABC is becoming more and more suitable for a rapidly developing and altering society. The following are some advantages of using activity-based costing, as summarized in the study done for this article. To begin, companies learn that using ABC to make decisions leads to more reliable findings. Second, it's possible to work out a system for estimating manufacturing costs over the long haul. Activity-based costing is also useful for making cross-company comparisons.

ABC has the potential to bring additional problems and unintended consequences, but it also has many advantages and can address many cost management difficulties when done correctly. Many managers are reluctant to pay the system's high costs, and employees are hesitant to invest in training due to the time commitment involved and the challenges of collecting data on cost issues [1]. Further, there are flaws in the ABC system itself. Problems with process concentration, a lack of organizational learning, and an insufficient customer orientation result from the rigid behavior of typical ABC management. Though ABC does not mandate any certain way of doing business or satisfying customers, it does encourage these practices. Although the ABC approach seems simple on paper, putting it into practice has proven to be more difficult than expected, resulting in a number of unanticipated complications. One of these is when a customer has a bad encounter. This result lends credence to the theory put forth by Datar and Gupta [10], which states that the more cost centers a business has, the more likely it is to make mistakes when estimating the costs of its products. As a result, many customers are dissatisfied with activity-based pricing because of this. In this way, the ABC method has restrictions and cannot be used for everything. Consequently, organizations that use ABC for pricing will likely need to modify their strategies when they expand into new

markets or sectors. The process of adaptation and adjustment naturally requires a large investment of time, energy, and resources.

## 4 Conclusion

This essay will take a global look at the ABC strategy, dissecting its origins and spread, as well as the issues it solves. The ABC approach encountered the limitations of conventional cost evaluation methods as it developed and spread to many countries. ABC is more suited to a complex production system and an unstable economic climate. Consistent with previous researchers' views and viewpoints, this study concludes that structural and contextual elements are more closely associated with ABC's performance. Despite the method's stated intention to boost financial performance, many businesses are hesitant to adopt it due to the high price tag and high level of intricacy involved. This contributes to dissatisfied customers as well. This work and a sizable chunk of the preceding literature focus almost exclusively on quantitative aspects of ABC research, leaving limited room for qualitative exploration. After a little reflection, however, it becomes clear that this research significantly expands the scope of ABC's usefulness in all walks of life. Now is the time for a global evaluation of the impact of activity-based costing and how it has been received. More research is needed to identify the best way to adopt ABC, guarantee a positive reaction around the world, and significantly enhance management accounting and cost control.

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