

A Management Accounting Change Programme: Activity-Based Costing

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Abstract: *At present, the global market economy is in the stage of rapid development, and the competition among enterprises is becoming much fiercer. The operation and management of enterprises need to adapt to the changes in the market, which requires enterprises to constantly explore external markets, strengthen management, reduce product costs, and improve core competitiveness. The change of management accounting is a kind of conscious and spontaneous behavior to adapt to the change of internal and external environment of enterprises. The aim of this article is to critically discuss the construction and change of management accounting and control system and its influence with activity-based costing (ABC), an advanced cost management accounting change scheme. This paper first studies the origin and development of activity-based costing from a global perspective, and then focuses on the significance of the implementation of activity-based costing and its impact on the management accounting and control system, and finally, the problems of activity-based costing are discussed.*

Keywords: *Activity-Based Costing, Management Accounting, Traditional Costing Method*

1. Introduction

In today's era of rapid development of the world economy, the global economy is gradually in transition, and gradually approaching the integration of the global economy and becoming a new development pattern. According to Bjørnenak and Mitchell (2002), as a branch of enterprise accounting, the tasks of management accounting are to carry out cost accounting, control, performance evaluation and assist managers to make decisions and so on [1]. Under the circumstances of intensified competition and increasing requirements of enterprises for management accounting, many enterprises choose to adopt management accounting methods to improve their cost management and profitability in order to improve the level of enterprise management and strengthen their own advantages. However, the accounting information provided by the traditional accounting and cost control methods is far from meeting the needs of the current enterprise development and management, which makes management accounting should make corresponding changes and make a newer transformation (Brimson, 1991) [2]. In the new management accounting reform project, activity-based cost management is one of the most representative methods, and its core is activity-based costing (Burns and Scapens, 2000) [3].

2. The Origin and Development of Activity-based Costing

In the late 20th century, modern management accounting has undergone significant changes, and remarkable new progress has been made. Management accounting starts from cost management, and in the new cost management reform project. Activity-based costing was put forward by American accountant Eric Kohler in the 1940s, and has been widely concerned and deeply studied since the 1980s (Colwyn Jones and Dugdale, 2002) [4]. As a result of the vigorous development of high-tech and electronic information technology in the 1980s, the production process was highly automated and intelligent, leading to significant changes in the product cost structure, and the proportion of overhead costs in the total cost kept rising, as a result, the traditional costing method which adopts a single quantity allocation standard (direct labor cost, direct labor hours, consumption of raw materials, etc.) as the manufacturing cost is gradually separated from the actual production of the enterprises, and the cost information it produces is likely to be inadequate or distorted, which leading to the enterprises make wrong production decisions (Colwyn Jones and Dugdale, 2002) [4]. In addition, with the increase of people's disposable income, the pursuit of quality of life was becoming higher, and consumers'

demands were also constantly pursuing diversification and personalization, which requires enterprises to produce more varieties and fewer batches of products quickly and with high quality (Bjørnenak and Mitchell, 2002) [1]. All the above factors require cost management to go deep into the activity-based level, which triggers great changes in management concepts and management techniques, and directly led to the formation and development of activity-based costing method. The essence of activity-based costing is to determine the reasonable basis for allocating overhead costs -- activities, as well as guide managers to identify the causes of costs -- the cost drivers, rather than focusing only on the cost results (Hussain and Gunasekaran, 2001) [5]. Therefore, activity-based costing has obtained rapid development and has been expanded from initial Britain, the United States and Canada to Asia, Australia, and other countries, and it is also widely used in manufacturing, business, medical and health, public utilities and other industries and become a global project (Brimson, 1991) [2].

3. The Significance of the Implementation of Activity-based Costing

3.1 ABC Can Overcome Some Deficiencies of the Traditional Costing Method and Effectively Improve the Use Efficiency of Overhead Costs

The so-called activity-based costing refers to a cost calculation method that carries on the comprehensive analysis of the causes of cost, the confirmation and the measurement to the activity-based cost, and the production and activity costs of a reasonable allocation (Kim, 2017) [6]. This method is based on the cause-and-effect relationship of the resource consumed by the activities, and all costs are traced or allocated to the activities according to the cause of the occurrence, and then activity-based costs are allocated to different products results in product costs according to the causality of the activities consumed by various cost objects such as the products. However, the traditional costing method often regards the product as the object of cost allocation, and accumulates the expenses generated by different costing objects in the production process, and the proportion of certain resources consumed by unit product in the total cost of current consumption is regarded as the distribution proportion of all indirect expenses (Gao, 2021) [7]. The unit cost of the same product calculated under the traditional costing method is often different from that calculated under the ABC method, for example, if two kinds of products are produced in the same workshop in a month, the output of one product is high and the other has a low output, then under the traditional costing method, the high-output product needs to bear more plant depreciation cost because it consumes more man-hours, and low-volume products need to bear less plant depreciation cost due to less consumption of working hours. However, in fact, the two products share the same workshop time and the same plant depreciation costs, so the traditional costing method underestimates the cost of low-volume products and overestimates the cost of producing large quantities of products. Therefore, compared with the traditional costing method, the ABC is more scientific and reasonable, and it can overcome many deficiencies of the traditional costing method, and through the calculation and effective control of ABC, the occurrence of cost and the cost object one-to-one correspondence, and different cost pools can choose different cost driver standards and reasonable distribution rate to allocate overhead costs, no matter how high overhead costs are, they can be scientifically and reasonably allocated to relevant products, which can overcome the defect of unclear overhead cost responsibility in the traditional quantity-based cost system, to help enterprises provide more accurate and reliable information on the actual cost of each dimension in their decision-making, so as to more effectively carry out various management activities and master the influence degree of the changes in various factors on profit changes, as well as more effectively improve the use efficiency of overhead costs, so that enterprises can obtain long-term competitive advantage and achieve the goal of sustainable development (Gao, 2021) [7].

3.2 ABC Can Help to Realize the Effective and Rational Allocation of Resources and Effectively Improve the Strategic Cost Decision-making

Activity-based costing as the foundation of strategic management, breaks through the limitations of traditional management accounting, which does not simply divide the costs into fixed costs and variable costs, instead, according to Hussain and Gunasekaran (2001), it takes the flow of activities as the basis for dividing the cost behaviors, and takes the cost pools as the center of the new responsibility activity chain [5]. Moreover, it determines whether the occurrence of various costs in the cost pools are reasonable, and the criterion for evaluating its rationality is to add value to the final products and to make a dynamic value chain analysis based on whether the value of the value chain has been improved,

giving full play to the role of resources in the value chain, so that enterprise resources can be more accurately allocated to each process of enterprise activity (Hussain and Gunasekaran, 2001) [5]. Therefore, senior managers and decision-makers of enterprises can accept the valuable information provided by activity-based cost accounting, which is helpful for managers to thoroughly analyze and control the resource consumption process and achieve the optimal utilization of activity chain, value chain, and the combination of product type and production quantity, so as to optimize resource allocation, to enable synergy between internal departments and to facilitate managers to make the most accurate judgment and the most realistic strategic development decisions, which may enable enterprises to make full use of limited resources to achieve the maximum production objectives, therefore, large-scale benefits may be realized and business strategies can respond to market risks in a more timely manner (Beheshti, 2004) [8].

3.3 ABC Can Provide an Accurate Basis for Enterprise Performance Evaluation and Enable Enterprises to Maintain the Vitality of Competition for a Long Time

The application of activity-based costing mainly pays attention to the occurrence of activities, and concentrates on the decomposition of production resource consumption in each specific link. Brimson (1991) pointed out that after mastering all the information about the process of production cost generation and the flow of consumed resources, the actual situation of product cost distribution can be fully understood, therefore, the relevant managers can further clearly define the responsibilities of each level and assign them to individuals, which can improve the effectiveness of the internal management and enterprise cost control [2]. Furthermore, the purpose of the implementation of activity-based costing is not simply to the pursuit of short-term costs reduction, but to give top priority to the strategic objectives and long-term development of enterprises, and consider the comprehensive performance of enterprises in the fierce global market competition, so as to carry out unified planning and calculation. For example, product design, product research and development and so on will be taken into consideration before the product is produced, and such an all-around cost accounting method makes product cost management more accurate and sophisticated, which promotes enterprises to be more consistent with the current severe market competition situation (Beheshti, 2004) [8]. Therefore, activity-based costing is advantageous to enterprises to maintain competitive vitality and promote sustainable development. In addition, Beheshti (2004) argued that in the process of analyzing activities, activity-based costing can distinguish which activities can bring added value according to the needs of the market, and after effective management, those costs that will affect the competitiveness of the enterprise market will be automatically discarded; As for those cost factors that can increase market share and promote the long-term and stable development of enterprises, such as after-sales service and return visit of products, they can be increased appropriately, which can provide a guiding basis for the performance evaluation of enterprises and improve the competitiveness of enterprises in the market [8]. In short, activity-based costing can provide new information support for the strategic management of enterprises, and is a solid foundation for modern enterprises to maintain their competitive advantages.

4. Some Problems of Activity-based Costing

Even though nowadays, activity-based costing is a new management theory and method in the global scope, and has produced many positive effects on enterprises, it still exists some drawbacks in the practical application of enterprise management accounting. First of all, it is not true that the more accurate the cost system, the better it is, instead, the cost is the key that needs to be considered. The initial cost of activity-based costing includes the cost of design, maintenance, software update management and personnel training and so on, which requires a large amount of capital investment. In addition, after being put into use, activity-based costing complements the extensive activity-based analysis identification, recording and measurement, and adds the selection of cost drivers and the allocation of activity costs (Kim, 2017) [6]. Therefore, activity-based costing is a huge systematic project, which needs to deal with a large amount of data and has a high cost, resulting in high cost of accounting development and implementation of activity-based costing, and the costs consumption even be likely to exceed its actual income. Secondly, there are some subjective factors in activity-based costing, such as the activities' confirmation, division, integration, as well as the selection of cost drivers (Khodadadzadeh, 2015) [9]. In practical work, different accountants may have different results as to which factors are completely correlated with changes in costs, which displays that objectivity is not strong. In addition, there are many forms of production and operation activities in enterprises, so when the activity-based costing is used as a division, it is may unable to make a clear distinction, resulting in

the difficulty of activity segmentation. Finally, some accounting managers of enterprises who lack professional judgment may hinder the effective implementation of activity-based costing. The implementation of activity-based costing has high requirements for the comprehensive quality of accountants, which requires the managers of enterprises to attach great importance, and in the whole process, it also involves the decomposition of activities, the determination of cost drivers, the analysis of the activity process and other aspects, which all need the joint participation of enterprise managers and professionals (Hussain and Gunasekaran, 2001) [5]. However, most accountants have been accustomed to complying with the accounting system and adopting a traditional mode of accounting work, and this lack of professional judgment can make the implementation of the activity-based costing relatively difficult and may constrain the development of enterprises (Khodadadzadeh, 2015) [9].

5. Conclusions

In conclusion, this paper critically discusses the development and impact of activity-based costing as a change project in management accounting and control system. In order to adapt to the development needs of enterprises and global development trends, cost accounting has carried out reform and innovation in the cost management concepts and cost accounting methods. With the increase of industrial production complexity and automation, the proportion of overhead cost in total cost increases gradually, and activity-based costing is more widely used in the world. Based on the traditional costing method, it makes a more detailed division of the factors that cause the activity costs within the organization, so as to solve the irrational problem of allocating all overhead costs based on quantity in the traditional costing method, and to provide more accurate cost information for business managers, which is more conducive to the management and control of economic cost information by senior managers and decision-makers. In addition, activity-based costing can provide a more scientific basis for strategic management decision-making, and provide a powerful guarantee for enterprises to achieve cost-leading strategy and maintain competitive advantage. However, activity-based costing still has some problems in the operation and management of enterprises, such as high implementation cost, high subjectivity of confirming the activity cost, and the quality of management accounting staff to be improved. Despite the above-mentioned unfavorable factors, the realistic possibility of implementing activity-based costing in the world is undeniable. Therefore, enterprises should strengthen the importance of management accounting, actively carry out innovative work, and effectively play a substantial role in management accounting.

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