

Integration and Application of Management Accounting Tools: from POB Perspective

Xishuan Zhang¹, Huifang Cheng^{2*}

¹Research Center for Energy Economics, School of Business Administration, Henan Polytechnic University, Jiaozuo, Henan, China

²School of Finance and Economics, Henan Polytechnic University, Jiaozuo, Henan, China

*Corresponding Author.

Abstract:

In response to the increasingly fierce market competition, and with the development of management theory and practice, there emerged many advanced management accounting tools and ideas. However, due to lack corresponding specific theory related to the independence and complementary relationship among them and staff's negative resistance, these tools are independent in practice and cannot give full play to their due functions. Based on the core ideology of the management accounting tools and features and in the view of POB perspective, the paper constructs an overall framework of the comprehensive application of management accounting tools to maximize their management functions and be suitable for the enterprises to establish their own management accounting system. On the application of the overall framework, manager can learn from POB theory and ways to improve staff's negative response and enhance effects.

Keywords: POB, Management accounting tools, Integration and Application.

I. INTRODUCTION

Since the 1970s, business environment all over the world has undergone tremendous changes, competition among enterprises has become more and more fierce. The increasing competitive pressure and development of management theory has brought about changes in management thinking and methods, many new management accounting tools emerged, such as Comprehensive Budget, Activity-Based Costing (ABC), Value Chain Management (VCM), Business Process Reengineering (BPR), Strategic Management Accounting (SMA), Standard Cost Method and so on. The widely application of these management accounting tools has significantly improved management level of enterprises and improved their operating efficiency[1-3]. Therefore, from the theoretical to the practical circles, a wave of learning and applying of management accounting tools has been set off. While when learning and applying these management accounting tools, enterprises often regard each management accounting tool as an independent system, so to apply them separately, that is, these management accounting tools are relatively independent, and they each constitute an independent management control closed loop and a self-contained system. In fact, the function areas in which these management accounting tools are both intersecting and overlapping, thus there is certain degree of complementarity among their application[4], so only the integration of these tools can give full play to their value.

Because lack of in-depth understanding of the connotation and characteristics of each management accounting tool, when enterprises apply these management accounting tools, often have the following phenomena: (1) emphasizing the systematicness and comprehensiveness of each single management accounting tool, while ignoring the limitations of its actual application, and excluding the supplement of other tools; (2) Blindly increasing application of management accounting tools, believing that the more management accounting tools are used, the better, but not logically solving the compatibility problem of each tool, resulting in the function overlap among various tools. Sometimes it will even contradict each other, resulting in a large amount of waste of resources and causing internal management chaos; (3) Seeking the novelty of management accounting tools, regardless of the internal and external environment in which the enterprise is located at current stage. The choice of management accounting tools lacks flexibility, constantly paying for the cost of expensive system conversion[5].

The reasons for former phenomenon come from a variety of sources. This paper believes that there are two main reasons: First, although in June 2016, the Ministry of Finance of China proposed in “Basic Guidelines for Management Accounting” that the application of management accounting tools should follow the principle of integration, theoretical community lacks theoretical sorting out of the independence and complementary relationship among different management accounting tools, as well as the guiding principles on systematic integration of them. The second is the relative complexity of management accounting tools to produce resistance. It is common among enterprise employees that management accounting tools are not practical and too complex and abstract. Positive organizational behavior, as a pro-organizational behavior, aims to discover and excavate all behaviors conducive to organizational development[6]. Therefore, it is necessary to use relevant theories and methods of Positive Organizational Behavior to explore the role of psychological capital and organizational behavior of managers at all levels of enterprise and the majority of employees in the corporate internal control, and how to give full play to the individual potential and advantages of employees to improve the effectiveness of management accounting tools in practice.

Through in-depth analysis of the connotation and characteristics of several major management account tools, this paper straightens out a logical relationship and complementarity between various tools, so as to put forward a basic framework for the integration and application of management accounting tools. At the same time, the paper proposes that in practice, enterprise should learn from the theory and methods of positive organizational behavior to strengthen the behavior guidance of enterprise employees, so to improve the effectiveness of implementation of management accounting tools, finally to have guiding significance for the practice of enterprise management accounting.

II. LITERATURE REVIEW

At present, mainstream management accounting tools overemphasize their own core importance, resulting in a lack of logical compatibility among various systems. The integration of management accounting tools contains the systematic evolution of theoretical management accounting systems to a large extent, which provides useful materials for the construction of theoretical management accounting

framework[7]. Chen Gao and Guliang Tang conducted in-depth theoretical analysis and practical summary of management accounting tools, and put forward the idea of mutual complementarity and integration among different management accounting tools[8]. On the basis of time-driven activity-based costing, Yanxin Yi et al. combined activity-based costing with strategic cost management, comprehensive budget management, performance management, information management, and proposed an integrated management accounting tool integration system based on activity-based costing[9]. Starting from Japanese management accounting system, Yehao Gang et al. discussed the characteristics and system of cost planning - a typical Japanese management accounting, also discussed the direction of strategic cost planning, studied and examined the relevance of Japanese quality management, total quality management, talent management and circular management, explored the diversification and integration of management accounting system as a “twenty-first century system”[10]. Zhao Xi et al. found that current research on the integration of management accounting tools mainly focuses on the mode and framework of integration, while lacks research on the theoretical basis, basic ideas and implementation path of integration. On the basis of combing the formation of integrated innovation theory, they summarized their core ideas, and put forward basic idea of integration motivation, integration essence, and integration foundation of management accounting tools based on integrated innovation theory[11].

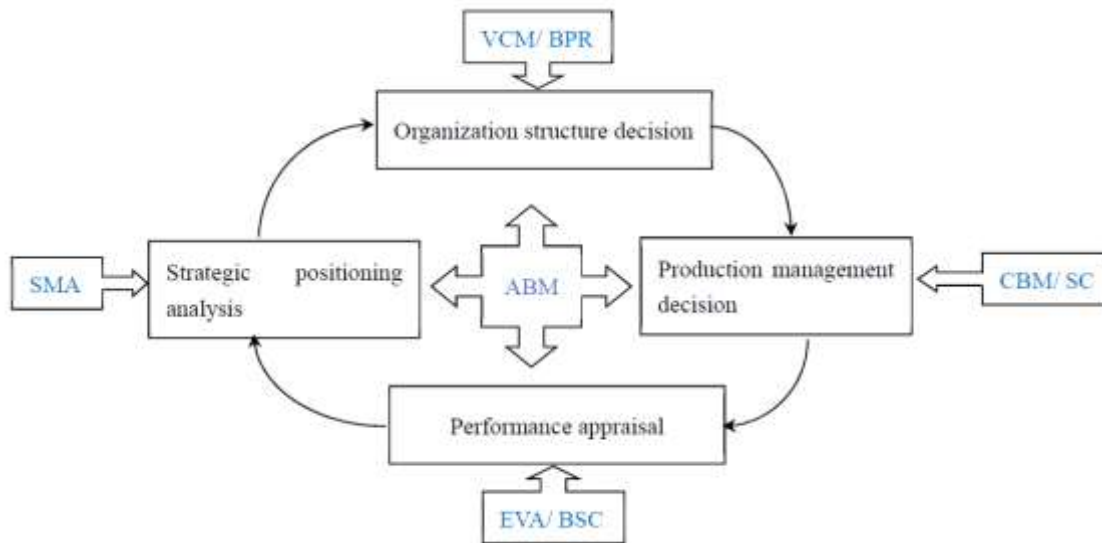
The above literature analyzes the necessity and significance of integration of management accounting tools from different aspects, and gives different ideas and methods for the integration of management accounting tools. However, these literatures as a whole do not jump out of the inherent field of thinking, and still treat management accounting only as an accounting management method, without recognizing that management accounting is a management control system that serves the overall strategic development goal of the whole enterprise. That is, it does not reflect the strategic management idea. This paper believes that we should put management accounting in a broader context, link management accounting with related other disciplines, stand at the height of enterprise strategic management, consider how to effectively apply management accounting information to the decision-making process of enterprise from the overall perspective, and the consider the integration of different management accounting tools. Besides, in the application of management accounting tools, employees’ attitude also pays an important role, enterprise must increase the enthusiasm of the staff.

Influenced by new trend of thought such as positive psychology, some scholars of organizational behavior have begun to reflect on whether positive ideas can be introduced into traditional field of organizational research. In 2001, American scholar Luthans and his colleagues in the study proposed Positive Organizational Behavior through the reflection of traditional organizational behavior and the application of positive psychology. From the four levels of attitude, personality, motivation and readership ability, he proposed that positive organizational behavior is an applied discipline with the purpose of improving work performance, guided by positive vitality of organizational members, and taking the measurement, development and effective management of the mental capacity of organizational members as the basic research content[12]. Positive organizational behavior emphasizes the development and management of human psychological advantages, focuses on solving conflicts and negative factors, etc. among managers and individuals in a team, studies how to take positive approach to improve staff’s own

strengths and enthusiasm, strengthen the effectiveness of individual self-realization and create a positive, optimistic and happy working atmosphere, so as to improve organization performance[13].

III. APPLICATION INTEGRATION OF MANAGEMENT ACCOUNTING TOOLS: POB PERSPECTIVE

Positive organizational behavior is based on the application of positive psychology, using a new perspective to study positive aspects of organizational behavior, it's a new perspective to study organizational behavior mode, corrected the negative orientation in the research of traditional organizational behavior, give researchers a new perspective on organizational behavior so that they began to pay attention to and explore the positive aspects of organization. In recent years, many researchers have found that people-oriented, taking the happiness of employees as the starting point, through actively cultivating the excellent qualities of employees, discovering and tapping the potential of employees to improve organization performance is a very effective way[14]. In order to ensure the correctness of enterprise strategic management, enterprise should fully learn from and make use of the concepts and methods of positive organizational behavior and economic psychology at all stages of management. At the same time, under the strategic planning, various management accounting tools should also be effectively applied to enterprise decision-making process to achieve the due functions of various management accounting tools. When applying management accounting tools to serve production and operation decision, enterprise should fully realize that the areas where various management accounting tools have different role and function, they are relatively independent and cross-overlapping, so that to some extent there is opposition and complementarity among these tools[15]. From the perspective of Positive Organizational Behavior, this paper analyzes the characteristics of main management accounting tools and their logical relationships with other, determines the scope of various management accounting tools in the process of enterprise whole management, and obtains the following integrated model of management accounting tools (Fig 1). In the implementation, enterprise should give full play to the enthusiasm and creativity of employees, truly implement management accounting tools to correct position, so to give full play to the role of management accounting. The details are as follows.



- ABM: Activity-Based Costing Management
- BPR: Business Process Reengineering
- BSC: Balanced Score Card
- CBM: Comprehensive Budget Management
- EVA: Economic Value Added
- SC: Standard Costing
- SMA: Strategic Management Accounting
- VCM: Value Chain Management

Fig 1: Integrated application framework of management accounting tools

3.1 Activity-based Costing Management runs through all Processes of Enterprise Management

The concept of Activity-Based Costing was originally proposed to better measure cost and solve the problem of common cost allocation. However, it was later discovered that the information it provided could be widely used in budget management, production management, product pricing, new product development, customer profitability analysis, and many other aspects, which made activity cost calculation go beyond product cost calculation itself and rise to activity-based costing management based on value chain analysis and serving enterprise strategic needs and value-added goals[9]. Enterprise should pay full attention to cost management when formulating strategies, implementing structural decisions and organizational decision, rather than only in enterprise cost accounting and evaluation, as shown in Fig 2. Therefore, Activity-Based Costing Management runs through all stages of enterprise management and is at the core of integrated application framework of management accounting tools.

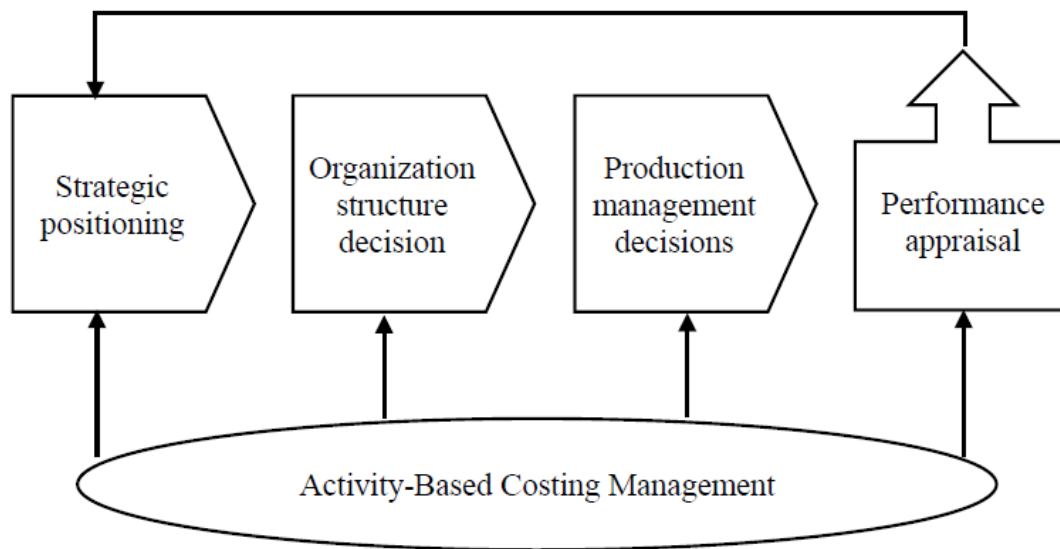


Fig 2: the application of activity-based costing management

3.1.1 Activity-Based Costing Management in Strategic Positioning Analysis

Strategic positioning analysis refers to the analysis, evaluation and prediction of enterprise strategic environment and their future development trend, as well as the impact and impact direction of these trends on the enterprise, and determine the strategy suitable for enterprise long-term development. Michael Porter, a leading expert on business strategy, pointed out that there are three possible strategic conditions that can lead company to success: cost leadership, differentiation and centralization. Obviously, if enterprise chooses cost leading strategy, it is necessary to actively explore ways to reduce costs, strengthen the management of cost control and reduce costs in an all-round way; if enterprise chooses differentiation or centralization strategy, although the enterprise does not directly take cost (price) as a competitive weapon, it is difficult to win the market competition or cannot maximize its profit without effective cost control. Therefore, no matter what kind of strategic positioning enterprise adopts, it is necessary to consider cost factor. Activity-based costing management can provide accurate and comprehensive cost information, provide real and rich cost information support for enterprise strategic positioning.

3.1.2 Activity-Based Costing Management in Organizational Structure Decision

Organizational structure of an enterprise is the overall combination of various relationships within the enterprise, its basic content includes the departmentation and hierarchical division of the organizational structure, as well as the responsibilities, authorities and mutual relations of each division thus forming an organic whole. Enterprise organization structure can significantly affect its cost, enterprise needs to consider the impact of different organizational structures on cost driver when making organization structure decision. Of course, cost driver mentioned here is not only various cost motivation at the time of product production, but a broad concept of cost drivers. Therefore, enterprise should pay full attention to cost management when implementing structural and organizational decisions.

3.1.3 Activity-Based Costing Management in Production Management Decision

Cost management in production and operation decision is cost management in the traditional sense,

including product development and design cost, product manufacturing cost, but also including usage cost, maintenance cost and waste cost and a series of other product-related resources. An important goal of enterprise in the production and operation decision-making is to achieve cost minimization, at this time, accurate cost information is of course indispensable important information, so activity-based costing management is needed to support for production management decision-making.

3.1.4 Activity-Based Costing Management in Performance Appraisal

Scientifically evaluating enterprise performance is a necessary condition for the effective operation of enterprise incentive mechanism, is necessary for the sustainable development of enterprise. Operating performance can be manifested in different aspects, a single indicator is one-sided and unscientific. Therefore, comprehensive evaluation is often required. Performance appraisal in terms of cost is an important aspect of comprehensive evaluation, so effective participation in activity-based costing management is also required for performance appraisal.

3.2 Strategic Management Accounting in Strategic Positioning Analyzing

Strategic management accounting is based on the overall height, the focus extends from enterprise inside to the outside, seeking overall competitive advantage of the enterprise. Modern enterprises seek to do the right thing right and what they need is guided continuous improvement. Correct guidance system for continuous improvement means that enterprise managers make detailed provisions on the mission and strategy of the enterprise, determine objectives, performance measurements and initiatives required to achieve the overall mission and strategy, which is also the key work of strategic management accounting system, so strategic management accounting provides a guarantee for enterprise to do the right thing. At the same time, thanks to the combination of strategic management accounting and strategic positioning analysis, the application of management accounting tools in the subsequent stage can ensure be in the correct direction and goal. Strategic management accounting can promote the information analysis of competitors, customers, suppliers and international macroeconomic situation, review whether each unit's goals is different from the impact of strategy on the income statement, balance sheet and cash flow statement. Strategic management accounting makes the enterprise's goal setting more closely related to financial statements, and also makes the formulation of strategy, the realization of goals, and the evaluation of performance more evidence-based.

3.3 Value Chain Management/ Business Process Reengineering in Organizational Structure Decision

Value chain consists of a series of value-creating operations from the purchase of raw materials to the sale of products to the end customer. Each product or service has its own unique value chain, the activities of all organizations in the value chain depend on customer's understanding of the value and cost of the product or service, because it is the customer who ultimately bears all the costs, and it is the customer who brings all the profits to the operation of enterprise value chain, thus every enterprise should consider its impact on the value chain when making organizational structure decisions. Processes in an enterprise are often cross-departmental, so studying processed helps managers understand how the operation of one

department relates to the operation and cost of another. In summary, value chain perspective argues that it is more effective to focus cost management on process control, so value chain management / business process reengineering will provide necessary support of organizational structure decisions.

3.4 Comprehensive Budget Management/ Standard Costing in Production and Operating Activity

After enterprise's goal and strategy are determined, it is necessary to embed the strategy into a comprehensive budget, that is, the enterprise's goal and strategy should be as far as possible to find out their impact on the balance sheet, income statement and cash flow statement. Only by quantifying as much as possible can the results be easy to measure and compare, the control and evaluation of the process is relatively easy. Various ideas and indicators of the budget should be implanted into ERP system standard and incorporated into enterprise daily management. Only by embedding these indicators into daily management and ensuring their achievement through various systems can the budget objectives be finally achieved. Standard Costing is a very effective management control tool for management accounting, which decomposes the indicators of budget into daily management control, and ensures the completeness and seriousness of the budget system. Budgeting and standard costing provide a basis for difference analysis and daily control, also provide goals for performance appraisal. Difference analysis and control and performance appraisal also provide impetus and improvement direction for scientific budgeting. Budget → Standard → Difference analysis and control → Performance appraisal → Budget form a virtuous circle of control system. The integration of comprehensive budget with standard costing, activity-based costing and ERP system makes enterprise daily control management more evidence-based

3.5 Economic Value Added/ Balanced Scorecard in Performance Appraisal

In the specific implementation process of enterprise strategy, in order to achieve the expected purpose and achieve the established goals, the implementation of the strategy must be controlled. A complete strategic management control system is inseparable from performance measurement, appraisal and evaluation. Building a performance appraisal system with balanced scorecard as the main body and embedding economic added value in the assessment and evaluation of financial indicators, is one of the ideas to change traditional evaluation system. Traditional appraisal system emphasizes the importance of budget appraisal, but traditional appraisal system focuses too much on the appraisal of financial indicators, while ignores the impact of single indicator appraisal system on organizational strategy and long-term development, which is not conducive to enterprise sustainable development, the short-sighted behavior of single budget appraisal has become increasingly prominent. The core idea of balanced scorecard system is to emphasize the importance of non-financial indicators in the performance appraisal system. It is necessary to establish a multi-dimensional performance appraisal system at enterprise internal and external levels comparing the value drivers[16], the integration of balanced scorecard and economic value added can fully meet this demand.

IV. CONCLUSION

The fundamental purpose of building an integrated system of management accounting tools is to stand at height of enterprise strategic management, start from the overall situation of enterprise management, deeply understand the core ideas behind each management accounting tool and its applicable fields, combine practical applications, discover a logical relationship among various management tools, and emphasize the complementarity and integration among various management tools. If enterprise can deeply understand the connotation and characteristics of each management accounting tool and logically integrate them into a management control system and apply them reasonably, it will be able to maximize enterprise benefits. However, like other management tools, the application of management accounting tools involves not only technical issues, it is also an art representing potential management concepts and experiences and rooted in the particular cultural environment in which the enterprise is itself. When enterprises carry out system integration of management accounting tools, they should decide according to the internal and external environment and changes of their own enterprises. At present, an important reason for the application of management accounting tools is the negative resistance of employees. Therefore, it is necessary to use relevant theories and methods of positive organizational behavior and economic psychology to explore the role of psychological capital and organizational behavior of managers at all levels and the majority of employees in the application of enterprise management accounting tools.

ACKNOWLEDGEMENTS

This research was supported by Henan Province Education Science 'Fourteen-Five' Planning - General Issues 2021 (Grant No. 2021YB0087) and Henan Province Higher Education Institution Key Scientific Research Project Program (Grant No. 22A880009).

REFERENCES

- [1] Robert Kaplan, Anderson Steven R (2013) Time-Driven Activity-Based Costing: A Simpler and More Powerful Path to Higher Profits. Boston: Harvard Business Publishing. ISBN978-1422101711
- [2] Robert Kaplan, Norton David P (2013) Alignment: Using the Balanced Scorecard to Create Corporate Synergies. Boston: Harvard Business Publishing. ISBN978-1591396901
- [3] Liu Shi, Huang You Ni (2014) Study on the Strategy-Oriented Enterprises Comprehensive Budget Management System. Advanced Materials Research 850:1032-1035
- [4] Bin Wang, Chen Gao (2004) Study on Integration System of Management Accounting Tools. Accounting Research 4:59-64
- [5] Qiaogen Feng (2009) Research on Integration of Management Accounting System. Communication of Finance and Accounting 2:6-8
- [6] Sheldon K M, King L (2001) Why Positive Psychology is Necessary. American Psychologist 56:216
- [7] Zhongbing Wang (2010) Mainstream Management Accounting Tools: Review and Integration. Beijing: Economic Science Press. ISBN9787514100143
- [8] Chen Gao, Guliang Tang (2007) Multiple Cases Study on Integrated Management Control Systems: Theoretical Analysis and Innovation in Chinese Companies. Accounting Research 8:68-75

- [9] Yanxin Yi, Wencui Sun, et al (2015) Exploration of Integrated System of Management Accounting Tools based on TDABC. *Productivity Research* 8:152-155
- [10] Yehao Gang, Fei Pan, et al (2004) Diversified Integration of Management Accounting: Expansion of the Management Accounting System in Japan. *Friends of Accounting* 11:4-6
- [11] Xi Zhao, Yaguang Li, et al (2012) Integration of Management Accounting Tools Based on Integrated Innovation Theory. *Journal of Tianjin university (Social Sciences)* 2:107-110
- [12] Luthans F (2002) The need for and meaning of Positive Organizational Behavior. *Journal of Organizational Behavior* 23:695-706
- [13] Wright T A (2003) Positive Organizational Behavior: An Idea Whose time has Truly Come. *Journal of Organizational Behavior* 24:437-442
- [14] Martinez, Hector A, Rochford, Kylie, et al (2021) Inspired and Effective: The Role of the Ideal Self in Employee Engagement, Well-Being, and Positive Organizational Behaviors. *Frontiers in psychology* 12:1-12
- [15] Allen C. Amason, Andrew Ward (2020) *Strategic Management: from Theory to Practice*. London: Routledge. ISBN978-0367430061
- [16] Dongwen Xie, Hui, Deng (2021) Practice of EVA-Based Balanced Scorecard in the Construction of Performance Evaluation System. *Mobile Information Systems*, 2021:1-8