


Activity Based Budgeting Model Integrated With Balanced Scorecard As A Cycle Of Increasing Corporate Performance

Kurumsal Performansı Arttırma Döngüsü Olarak Balance Scorecard İle Entegre Edilmiş Faaliyet Tabanlı Bütçeleme Modeli

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Abstract

Accounting has an active, effective and strategic importance in extracting meaningful analysis from financial and non-financial data collected in strategic layers, establishing systems that will show latent patterns between data and preparing budgets. Budgets, supported by the information produced in accounting, provide the information required to fulfill the strategic functions of the senior management. In addition, it serves as a guide for accountability to management and supervisory boards. Budgeting and evaluation studies are the leading reflex behavioral models developed to protect and sustain enterprise assets. This study focuses on the integration of Balanced Scorecard and Activity Based Budgeting model. It is predicted that this integration will bring multiple benefits to businesses. First of all, through this integration, cause-effect relationships are established between strategies in the planning process. Subsequently, a model is developed to eliminate strategies that do not contribute to the financial strategies of the business. When analyzed from the perspective of performance, it was observed that this integration enabled more efficient performance analysis. It was also confirmed that it would contribute to meeting strategically focused expectations. In the study, how an integrated methodology can be created to ensure the unity of Balanced Scorecard and Activity Based Budgeting was examined descriptively. The study was presented in a theoretical framework, and the conditions for realization in practice were left open to discussion.

Keywords: Balanced Scorecard, Activity-Based Budgeting, Performance Metric, Performance Analysis

Öz

Muhasebe; stratejik katmanlarda toplanan finansal ve finansal olmayan verilerden anlamlı analizlerin çıkarılmasında, veriler arasındaki gizli örüntüleri gösterecek sistemlerin kurulmasında ve bütçelerin hazırlanmasında etkin, etkili ve stratejik öneme sahiptir. Muhasebede üretilen bilgiler ile desteklenen bütçeler üst yönetimin stratejik işlevlerini yerine getirmek için gerekli olan enformasyonu sağlamaktadır. Bununla birlikte yönetim ve denetim kurullarına karşı hesap vermede kılavuz niteliği taşımaktadır. İşletme varlıklarının korunması ve sürekli kılınabilmesi yönünde geliştirilen refleks davranış modellerinin başında bütçeleme ve değerlendirme çalışmaları gelmektedir. Bu çalışma Balance Scorecard ile Faaliyet Tabanlı Bütçeleme modelinin entegrasyonu üzerine odaklanmaktadır. Bu entegrasyonun işletmelere birden fazla yarar sağlayacağı öngörülmektedir. İlk olarak bu entegrasyon sayesinde planlama sürecinde stratejiler arasında neden sonuç ilişkileri kurulmaktadır. Sonrasında işletmenin finansal stratejilerine katkı sağlamayan stratejilerin elimine edilmesini sağlayacak bir model geliştirilmektedir. Performans perspektifinden incelendiğinde; bu entegrasyonun daha verimli performans analizlerinin yapılabilmesine olanak sağladığı görülmüştür. Aynı zamanda stratejik odaklı beklentileri karşılamaya katkı sağlayacağı doğrulanmıştır. Çalışmada Balance Scorecard ile Faaliyet Tabanlı Bütçeleminin birlikteliğini sağlamaya yönelik bütünsel bir metodolojinin nasıl oluşturulabileceği betimsel olarak incelenmiştir. Çalışma teorik çerçevede ortaya konmuş, pratikte gerçekleştirme koşulları tartışmaya açık bırakılmıştır.

Anahtar Kelimeler: Balanced Scorecard, Faaliyet Tabanlı Bütçeleme, Performans Ölçümü, Performans Analizi.

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1. Introduction

With the loss of importance of traditional performance measurement systems, new approaches have been developed and adopted in performance metric. One of these approaches is the balanced scorecard approach. Balanced scorecard is expressed as both a control, measurement and assessment tool that uses various performance indicators, and an integrated management tool and a corporate learning tool (Yükçü, 2007: 656). Unlike traditional performance metrics, the balanced scorecard obtains data from four perspectives (customer perspective, internal perspective, innovation and learning perspective, and financial perspective). By means of this feature, balance is provided in the performance measurements of businesses (Kaplan and Norton, 1993: 134-135). This approach provides various benefits to businesses. One of these benefits arises during the budgeting process.

Efforts to create a balanced scorecard within the business enable the enterprise to associate its financial budgets with its strategic goals. In other words, creating a balanced scorecard forces business to integrate strategic planning and budgeting processes, thus helps business budgets to support strategies (Kaplan and Norton, 1996a: 78-82). In the study, how an integrated methodology can be created to ensure the unity of balanced scorecard and activity-based budgeting was examined descriptively. The study was presented in a theoretical framework, and the conditions for realization in practice were left open to discussion.

2. Balanced Scorecard

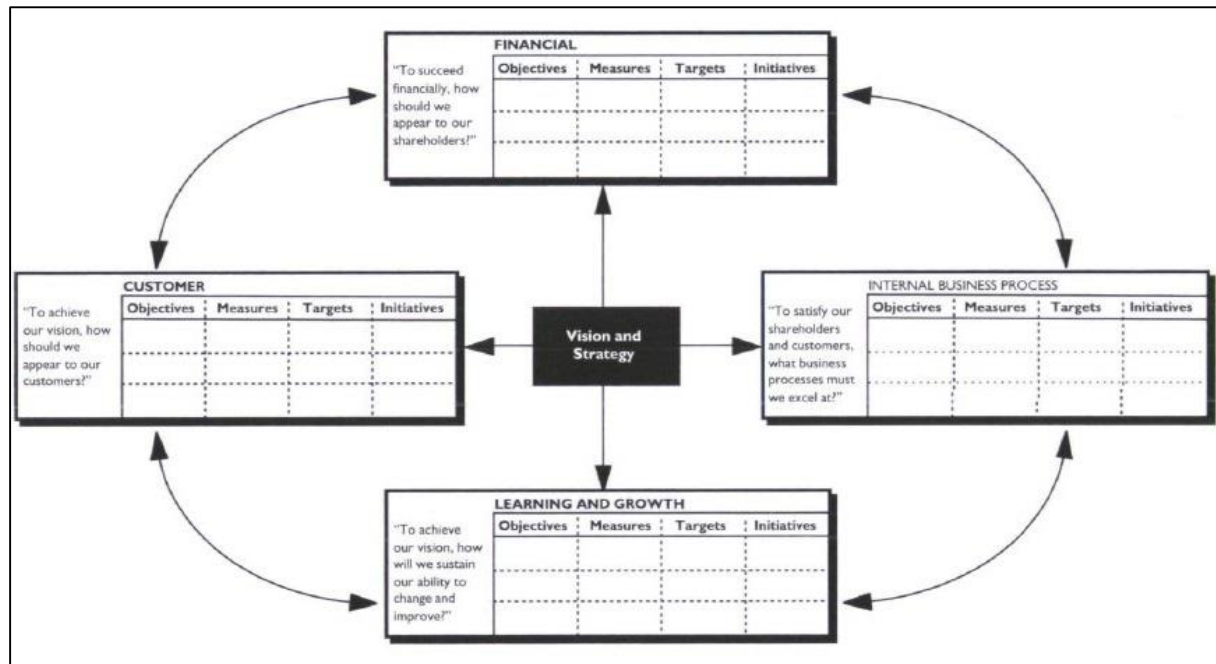
Balanced scorecard appeared firstly in the literature with the article titled "The Balanced Scorecard: Measures That Drive Performance", which was published by Kaplan and Norton in 1992 in Harvard Business Review (Akgemci, 2007: 54). As of that date, the balanced scorecard approach has spread rapidly. It has been accepted by businesses operating in many regions of the world and in different sectors and has been used as a performance metric and management tool (Coşkun, 2006: 79). It is seen that the definition of balanced scorecard is quite abundant in the literature. With a simple definition made by Kaplan and Norton, a balance scorecard is defined as expressing the mission and strategy of an enterprise by transforming it into physical measures (Kaplan and Norton, 1996a: 12). Balanced concept expresses the balance that this approach creates between long- and short-term goals, financial and non-financial criteria, subsequent and antecedent indicators, internal and external performance dimensions. (Kaplan and Norton, 1996a: x). The main idea of the balanced scorecard approach is expressed as associating business strategies with targets for implementation, following the criteria representing these relationships, checking whether the determined strategies achieve the expected results (Yükçü, 2007: 655).

When traditional performance measurement systems are examined, it is seen that in these systems, business performance is evaluated using only financial criteria. However, it is known that financial criteria consist of both short-term and historical data. Over time, the view that performance measurements made using only financial criteria do not reflect the truth or are insufficient in reflecting the truth has gained weight. As a result, new approaches have been developed in performance measurement. One of these approaches is the balanced scorecard approach.

Balanced scorecard also contains financial measurements. However, it also attaches importance to more general and integrated measurement units that relate current customers, internal methods, employees and the performance of the system with long-term financial success (Kaplan and Norton, 1996a: 27). The most important difference of the balanced scorecard approach from traditional performance measurement systems is that it uses financial performance criteria as well as non-financial performance criteria in a balanced way and takes into account the value of the intangible assets as well as the tangible assets of the enterprise and establishes the performance management system on the strategic goals of the enterprise (Coşkun, 2006 : 53). In other words, balanced scorecard tries to provide a balance between past performance indicators and future performance indicators (Gawankar et al., 2015: 18).

Balanced scorecard provides managers with a comprehensive framework that can translate the vision and strategy of the enterprise into a consistent and connected set of performance measures (Kaplan and Norton, 1996b: 55). From this point of view, it is understood that the balanced scorecard approach takes the strategy and vision, not the control, to the center (Kaplan and Norton, 1992: 180). Therefore, the balanced scorecard approach should be used as a communication, information and learning system, not as a control system. (Kaplan and Norton, 1996a: 33). This is because balanced scorecard is not only a performance measurement system, but also a management system that enables businesses to clarify their visions and strategies and turn them into action (Gawankar et al., 2015: 10). The balanced scorecard approach developed by Kaplan and Norton is shown in Figure 1:

Figure 1: Balanced Scorecard Schematic Representation



Source: Kaplan, R. S. and Norton, D. P. (1996b). "Linking the Balanced Scorecard to Strategy", *California Management Review*, Volume: 39, No: 1, p: 54.

As can be seen from the figure, the balanced scorecard enables managers to view the business from four important dimensions. These are financial dimension, customer dimension, internal processes dimension, and innovation and learning dimension (Kaplan and Norton, 1992: 174). When the dimensions covered within the balanced scorecard are examined, it is clearly seen that it includes intangible assets as well as tangible assets.

- **Financial Dimension:** Financial performance measurements included in the balanced scorecard show whether business strategies and practices contribute to the improvement of profitability. Typical financial objectives that can be set within the financial dimension are related to profitability, growth and shareholder value (Kaplan and Norton, 1992: 178).

- **Customer Dimension:** Today, many businesses continue their activities with a customer-oriented corporate mission. Therefore, knowing how an enterprise performs from the perspective of its customers has become a priority for senior management (Kaplan and Norton, 1992: 175). In the customer dimension within the scope of the balanced scorecard, the customer and market segments that the business will compete with and the performance measures of the business in these segments are defined (Kaplan and Norton, 1996a: 33).

- **Internal Processes Dimension:** Excellent customer performance stems from the processes, decisions and actions that occur in a business. For this reason, businesses should also provide in-house measurements in order to meet customer expectations and to protect and / or increase customer performance (Kaplan and Norton, 1992: 176). In this dimension, it is determined which important internal process methods the business should develop and bring to perfection. In this context, the objectives and measurements required for both the long-term innovation process and the short-term operation process are brought together (Kaplan and Norton, 1996a: 34-36).

- **Innovation and Learning Dimension:** In this dimension, the infrastructure required for long-term growth and development in the enterprise is put forward (Akgemci, 2007: 57). In the studies conducted within this scope, it is defined in which areas the business should specialize in order to satisfy its customers and shareholders (Coskun, 2006: 117). This dimension is expressed as the basis of the balanced scorecard approach. Realization of high targets related to the dimensions of financial, customer, internal processes varies depending on the learning and growth capabilities of the business (Yükçü, 2007: 667; Niven, 2005: 16).

Unlike traditional performance metrics, balanced scorecard gathers data from four perspectives. This feature provides balance in performance measurements of the business (Kaplan and Norton, 1993: 134-135). However, while providing information to senior executives from four different perspectives, balanced scorecard also limits the number of criteria used and minimizes excessive information overload on business executives. In this way, balanced scorecard

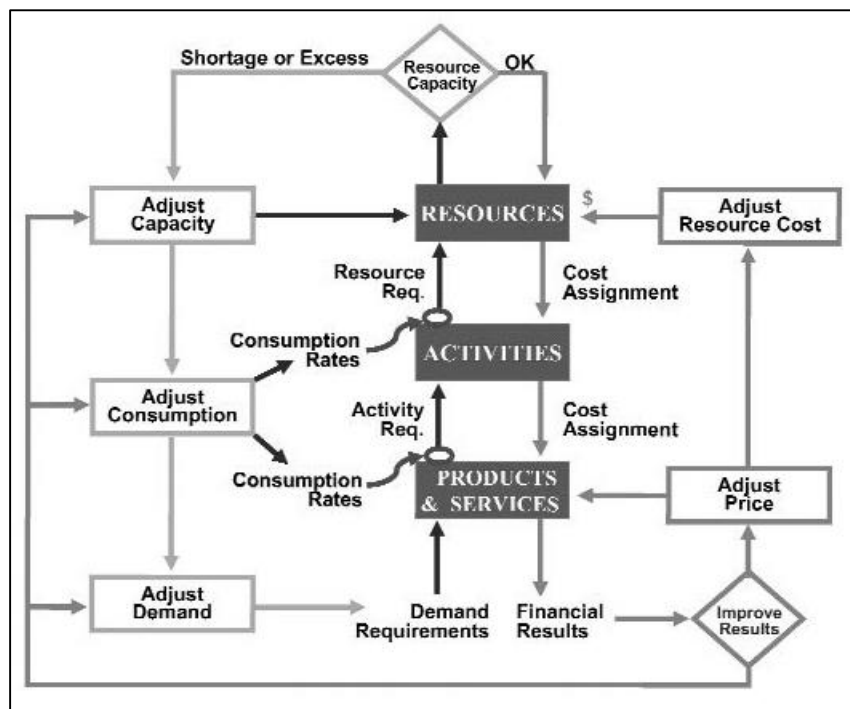
helps business managers to focus on the most critical criteria and strategic vision (Kaplan and Norton, 1992: 174; Kaplan and Norton, 1993: 134).

3. Activity Based Budgeting

Activity based budgeting is one of the budgeting systems developed to overcome the obstacles of the traditional budgeting approach and eliminate its deficiencies (Santosuosso, 2013: 6; Janikova, 2011: 19). Activity based budgeting is a budgeting system based on activity-based costing philosophy (Atrill and McLaney, 2009: 462). The emergence and development of activity-based costing and activity based management approaches have resulted in the expansion of the relevant methodology to planning and budgeting areas over time (Hansen, 2011: 304). This situation has led to the emergence of activity-based budgeting. If the activity-based budgeting system is to be considered in a narrow sense, it refers to the extension of activity and capacity-based concepts into the budgeting area (Pietrzak, 2013: 27; Hansen, 2011: 304). In another definition, activity-based budgeting is defined as a budgeting approach that focuses the attention of business management on activities in order to increase customer value and current profit and reduce costs (Shim et al., 2012: 513).

When considered as a process, activity based budgeting system is expressed as an approach that takes cost objects as the starting point, determines the necessary activities according to this starting point, and then estimates the resources required for the budget period (Dury, 2018: 395). Activity based budgeting process starts with demand forecasts. These estimates are then used to plan the activities required for the budget period and to budget the resources required to perform these activities (Shim et al., 2012: 395). In activity-based budgeting, activity-based costing process is reversed. In this system, the activities required to produce these outputs from the planned outputs and then the costs required to perform these activities are reached (Robinson, 2007: 55). Following these explanations, the activity-based budgeting process is schematized as shown below:

Figure 2: Activity Based Budgeting Schematic Representation



Source: Stevens, M. E. (2004). "Activity-Based Planning and Budgeting: The Coming of Age of the "Consumption-Based" Approach", *The Journal of Corporate Accounting & Finance*, 15 (3), p. 16.

As can be seen in the figure, in activity based budgeting system, a model is defined that first determines the activities required for an enterprise to provide products / services to its customers, and then maps the resources needed to perform these activities and how these resources are used. Through this model, the relationships between resources, activities and product / service demands are reflected (Stevens, 2004: 16). The purpose of the activity-based budgeting system is to create a link between operational and financial processes as a result of combining planning and budgeting

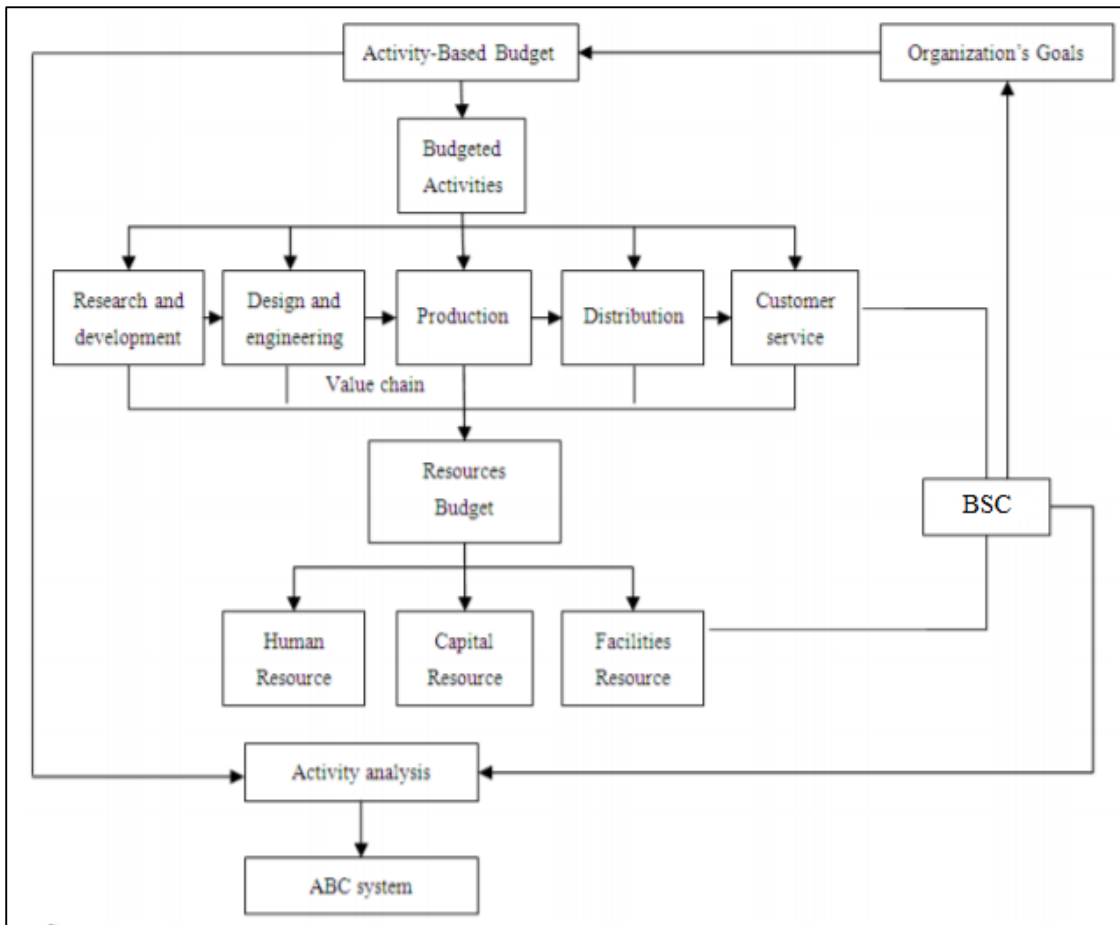
with an activity-based perspective (Kaygusuz and Dokur, 2009: 628). In this way, plans regarding the activities within the business are combined with detailed financial plans, and the budget emerging at the end of the process becomes more useful and beneficial for managers (Groot and Selto, 2013: 150).

Businesses adopt activity-based budgeting to manage costs more effectively. This is because traditional budgets cannot reflect the relationships between activities and costs. Therefore, these budgets are insufficient to manage the costs of activities (Dury, 2018: 386). This shortcoming has been tried to be overcome by developing an activity-based budgeting system. Activity based budgeting system requires determination of the costs of planned activities according to the resources they consume (Pietrzak, 2013: 27). This situation enables the reduction and / or elimination of activities that are excessive and do not create added value, to ensure efficiency in activities and to reduce costs (Kaygusuz and Dokur, 2009: 629). Because of this feature, many managers believe that this system is more useful to prevent waste and increase efficiency (Shim et al., 2012: 394).

4. Integration Of Activity Based Budgeting With Balanced Scorecard

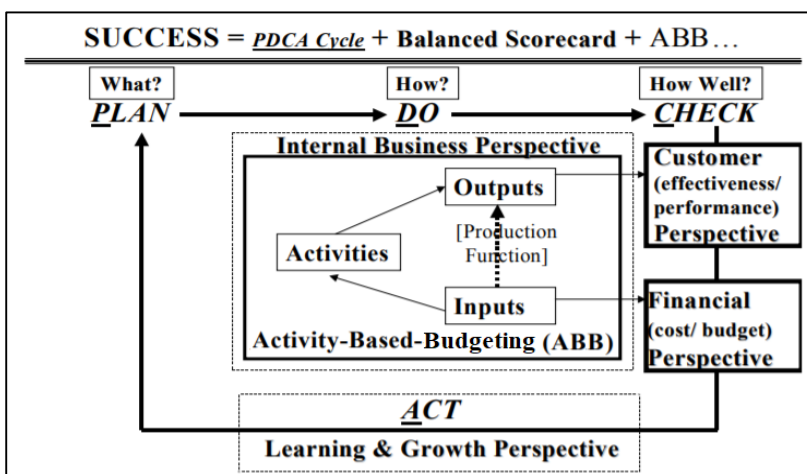
Today, businesses are in search of alternative methods by which they can distribute their resources optimally according to their functions. This search has highlighted the trend towards performance-based models that establish a relationship between long-term strategies and the use of resources (El Gibaly and Diab, 2012: 544). For this purpose, they use a performance-based budget model based on "performance management". The harmonization of performance-based budget and strategies is an indisputable fact. Therefore, in the planning process of the performance based budget, there is a need for a model that will ensure the elimination of empty (unnecessary) strategies that do not contribute to the financial strategies of the organization by establishing a cause-effect relationship between strategies. For this reason, harmonizing the "Balanced Scorecard" model with the "Activity Based Budgeting" as a whole will be the cornerstone of eliminating all these problems. In this context, it is possible to represent the Balanced Scorecard and Activity Based Budgeting relationship and integration as in Figure 3 and the success cycle of the integration process of Balanced Scorecard and Activity Based Budgeting approaches as in Figure 4:

Figure 3: Integration of Balanced Scorecard with Activity Based Budgeting Approaches



Source: Huynh, T. et al. (2013). "Integration of Activity-Based Budgeting and Activity-Based Management", *International Journal of Economics, Finance and Management Sciences*, 1(4), p: 181-187.

Figure 4: Success Cycle of the Integration Process of the Balanced Scorecard and Activity Based Budgeting Approaches



Source: Melese, F. et al. (2004). "A New Management Model for Government: Integrating Activity Based Costing, the Balanced Scorecard and Total Quality Management with the Planning, Programming and Budgeting System", *International Public Management Review*, Volume: 5, Issue: 2, p: 110.

4. Conclusion

The concept of corporate sustainability is the preservation and sustainability of the enterprise. This phenomenon is the only goal of institutions that does not disappear as it is achieved. All of the corporate efforts towards this goal is grouped under the management accounting discipline. In this context, management accounting tools that must be prepared and monitored as per the principle of management by objectives ensure that the success of the management is measurable and controllable. Operating budgets that direct forecasting, monitoring and evaluation in the context of corporate sustainability should be made and monitored by integrating Balanced Scorecard (BSC) and Activity Based Budgeting (ABB) because this integration allows the business to associate benefit (performance) metrics with cost (budget) estimates to improve the business decision-making process. At the same time, it would not be wrong to define a strategic study that allows the company to review itself from top to bottom and systematically evaluate its strengths and weaknesses, risks and opportunities, as the revision, the new normal of budgeting systems that are erroneously constructed within the reflex behavioral models developed for corporate sustainability. It is necessary to implement Program-Budgeting and Monitoring-Assessment tools as an indispensable and useful part of the institution's DNA. In socio-economic environmental conditions that tend to constantly lose ground, it will not be possible to obtain the expected support from the management approach with objectives and the planning tools that are the product of this understanding, and it will be more likely to be made in the direction that may cause severe consequences. Therefore, the current conditions of the enterprise should be analyzed very well before preparing the budgets. Analyses based on realized values cannot protect the business from the results of experienced activities.

In this context, activity-based budgeting approach has three main pillars. These are expressed as a method based on analysis of resources, quality of costs and quantity. However, this budgeting alone is insufficient to meet expectations. Hence, in the activity based budgeting model, determining the relationships between activities and consuming cost objects for activities, modeling the activity flows and the costs associated with the activities in a way to reflect the cause and effect relationship is critical. The model we propose is a method focused on the total performance of the business. The model aims to use financial and non-financial data as a whole. The starting point of this model is to accept the success of the financial performance of the companies that depend on the performance of many non-financial business functions. For this reason, it is considered that the integration of BSC and ABB will be an important tool in revealing the cause-effect relationship of tangible and intangible values (assets).

With this modeling, it is aimed to enable the rational determination of the strategies of the business and the elimination of empty (unnecessary) strategies that do not contribute to financial targets before resource allocation with the help of the strategy map to be created specific to the structural fabric of the business. The model will also play an active role in determining in advance what will be done when, how and with what surplus value. The periods to be planned will be a concrete and powerful narrative tool in determining which measurable success targets will be achieved, with the support of strategies to be developed in accordance with which purposes, within which methods and standards and in accordance with the expected conditions. This tool is considered to be a benchmark (milestone) in making objective cost allocation between activities and also in revealing the value creation stories and strategies of institutions more rationally.

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