

Chapter 11

Activity-Based Costing in Public Administrations: A Business Process Modeling Approach

Jörg Becker

European Research Center for Information Systems, Germany

Philipp Bergener

European Research Center for Information Systems, Germany

Michael Räckers

European Research Center for Information Systems, Germany

ABSTRACT

The traditional way of budgeting in public administrations is input-oriented; however, this system does not meet actual methods of efficient budget controlling as a mapping of output parameters. Due to challenges, such as the need for cost reduction because of decreasing tax revenues, pressure for controlling mechanisms is rising. Furthermore, Europe Pan-European directives foster process harmonization and introduction of IT-supported and optimized business processes in the public sector. In this regard, activity-based costing can be a useful instrument for efficiency measurement of public administrations output. Through the introduction of new public management and double-entry accounting public administrations, the opportunity to use cost-centered accounting mechanisms to assess process performance while evaluating their activities in a holistic concept is accomplished. Process modeling can be a useful instrument to help public administrations to capture relevant process knowledge and thus create the data basis for activity-based costing.

INTRODUCTION

Actually, the Public Sector is facing many changes. Initiatives like the EU Service Directive (European Commission, 2006), or the EU e-Procurement Directive (European Commission,

2004) demands for increasing service delivery. Furthermore, the customers attitude changes, he expects more and more transparency of public administrations processes (Janssen, 2005). At the same time the pressure for reducing the costs for daily work grows. Against the background of declining tax revenues, cities and municipalities in Europe in particular have to deal with improv-

DOI: 10.4018/978-1-4666-1568-7.ch011

ing and redesigning their work routines (Becker, Niehaves, Algermissen, Delfmann, & Falk, 2004; Gronlund, 2002). Therefore, the support of the business process through IT like specialized procedures and workflow management systems plays a crucial role. However, this also represents a further cost factor. The cost-benefit ration for those IT investments often remains opaque to the administrations, limiting the intent to invest.

Through New Public Management (NPM) new possibilities of cost control for public administrations arise. With NPM, the way of accounting in public administrations, e. g., in Germany, changes from the classical fiscal accounting to double-entry accounting as known from the private sector (Hood, 1995). Based on this new accounting approach, administrations have the possibility to introduce an almost complete resource usage concept (Jackson & Lapsley, 2003). Elements like target agreements concerning products and a contract management with the employees are essential constituents of this reformation.

Activity-based costing is a useful instrument for public administrations. Public administrations, as an overhead intensive service sector, are suited particularly well in this case. NPM offers relevant data basis for activity-based costing. It allows for assessing administration processes from a cost perspective in different overhead areas (Brown, Myring, & Gard, 1999; Jackson & Lapsley, 2003). The obtained cost rates can be used for cost control as well as for comparing administrations and for comparing as-is and to-be costs.

Process models are an appropriate measure for supporting activity-based costing. Process models are used for transparency issues concerning the knowledge of activity flows and for documenting the often implicit process knowledge of the employees.

Thus, process modeling provides a qualitative description of activities, providing in depth-understanding and thereby a starting point for the quantitative analysis with activity-based costing (Tornberg, Jämsen, & Parakno, 2002). However, with business process modeling public administrations face specific challenges because their highly diversified product portfolio often contains more than 1,000 processes (Algermissen, Delfmann, & Niehaves, 2005). Using generic modeling languages like event-driven process chains (Scheer, 2000) or BPMN (Object Management Group, 2008) often turns out to be very difficult due to the large amount of processes (Becker, Algermissen, & Falk, 2007). The modeling method PICTURE, which has exclusively been developed for the needs of public administrations, has proved to be adequate for this field of application. It has been used for modeling and analyzing by now more than 1,000 processes in public administrations successfully (Pfeiffer, 2008).

The contribution of this article is the combination of the domain-specific modeling method PICTURE and the concept of activity-based costing. This integration enables public administrations to model their processes fast and easily, to assess them from a cost perspective and based on this to carry out a process assessment and evaluation of reorganization activities.

In the following chapter explains the basic concepts of activity-based costing and its applicability to public administrations. Afterwards the PICTURE method is presented as a modeling method especially developed for public administrations. In the fourth chapter both concepts are compared, their connection is set up and illustrated using an example. This article concludes with a summary and an outlook to future research areas.

9 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/activity-based-costing-public-administrations/65948

Related Content

Transnational Consumer Protection in E-Commerce: Lessons Learned From the European Union and the United States

Zlatan Meskic, Mohamad Albakjaji, Enis Omerovic and Hussein Alhussein (2022). *International Journal of Service Science, Management, Engineering, and Technology* (pp. 1-15).

www.irma-international.org/article/transnational-consumer-protection-in-e-commerce/299972

Quality of Service and Extra-Functional Properties for Web Services: A Model-Driven Approach

Guadalupe Ortiz and Behzad Bordbar (2012). *Service Life Cycle Tools and Technologies: Methods, Trends and Advances* (pp. 35-64).

www.irma-international.org/chapter/quality-service-extra-functional-properties/60290

A Stable Matching Algorithm for VM Migration to Improve Energy Consumption and QOS in Cloud Infrastructures

Abdelaziz Kella and Ghalem Belalem (2014). *International Journal of Cloud Applications and Computing* (pp. 15-33).

www.irma-international.org/article/a-stable-matching-algorithm-for-vm-migration-to-improve-energy-consumption-and-qos-in-cloud-infrastructures/113805

Business Process Change in E-Government Projects: The Case of the Irish Land Registry

Aileen Kennedy, Joseph P. Coughlan and Carol Kelleher (2010). *Electronic Services: Concepts, Methodologies, Tools and Applications* (pp. 1119-1132).

www.irma-international.org/chapter/business-process-change-government-projects/44004

Identification of Attributes of TQM in an Educational Institute: A System Model

Rajiv Sindwani, Vikram Singh and Sandeep Grover (2013). *Best Practices and New Perspectives in Service Science and Management* (pp. 123-141).

www.irma-international.org/chapter/identification-attributes-tqm-educational-institute/74989