Activity-Based Costing (ABC) and Time-Driven Activity-Based Costing (TDABC): Applicable Methods for EBLIP?

Kate-Riin Kont
Signe Jantson
Tallinn University
* Why cost accounting reached libraries?
* How the new cost accounting models, such as activity-based costing (ABC) and time-driven activity-based costing (TDABC) are researched and adapted by university libraries?
* What kind of researches has been carried out in libraries using these methods?
* What are the strengths and weaknesses of both models, to find out which of these two methods is suitable for evidence-based practise in university libraries?
• For a long time the management of libraries did not pay attention to such areas of librarianship as the development of the effective management of book collections, classification, cataloguing, and the like.

• This inattention was not important because of the small size of collections, staff, buildings, and clienteles made for simplicity of operation and demanded not very sophisticated approach to the ways of doing things (Coney, 1952, p. 83).
The early studies and reports of the results of the library cost accounting (Cutter, 1877; Whitney, 1885; Bishop, 1905) indicate that one of the main reasons why cost accounting reached libraries was the need of library managers to justify their costs to the public as well as to their parent organizations, which however was seldom easy.
Cost Management in Libraries

Libraries have traditionally offered their services free of charge.

New services based on expensive licence fees make it economically difficult for libraries to serve with limited and shrinking resources when price increases exceed the annual increase of library budgets (Haarala, 2004).

In the 1990s, savings in staff and in information resources became common (Haarala, 2004).
Cost Management in Libraries

Libraries today are included in the general demand for cost transparency and effective cost management.

With the data they have traditionally collected, libraries can assess details about the costs of collection building;
what they need now are reliable data about the costs of their services and products.
Activity-Based Costing Methodology

Activity-Based Costing (ABC) was designed in the United-States during the 80’s by Cooper and Kaplan. There is a four-step approach to implement the ABC system (Cooper & Kaplan 1988):

- identify the key activities and relevant cost drivers,
- allocate staff time to activities,
- attribute staff salaries and other costs to activity cost pools,
- determine the cost per cost driver.
ABC: Some Examples in Libraries

- The University of Southampton developed the ABC system already in 1991 and applied ABC methodology to its library services (Goddard & Ooi).

- In 1996, Edith Cowan University (ECU) in Australia adopted ABC and undertaken practical steps towards implementing the ABC system (Ellis-Newman & Robinson, 1998).

ABC: Some Examples in Libraries

- Oxford University Library started to develop the ABC system in 2001 to identify work efficiencies and calculate the actual costs of materials and services (Heaney, 2004).
- ABC analysis was used in the development of a current and future cost/benefit financial model for three academic libraries – Library of the University of Utrecht in Netherlands, Library of the University of Luleå in Sweden, and Library of the University of Bremen in Germany – to support the library management’s decision-making and the library budgeting process by taking away uncertainty (Kollöffel & Kaandorp, 2003).
- In 2008, the ABC method was used to analyze and enhance the activities of the Super e-Book Consortium in Taiwan and Hong Kong (Ching & Leung, 2008).
Nevertheless, ABC appeared to cause two significant problems:

1) setting up the ABC system can be very costly, especially if the current accounting system of university does not support the collection of ABC information.

2) the system needs to be regularly updated, which further increases its costs.
Time-Driven Activity-Based Methodology

Time-Driven Activity-Based Costing (TDABC) was designed as revised and easier version of ABC by Kaplan and Anderson at the beginning of 21st century (Kaplan & Anderson, 2004; Kaplan & Anderson, 2007).

In the TDABC model only two parameters are required:
1. the number of time units (e.g. minutes) consumed by the activities related to the cost objects (the activities the organization performs for products, services, and customers) and
2. the cost per time unit.
TDABC Studies in Libraries

The TDABC method in the context of the university library has been tested twice in Belgium, at the Arenberg Library of the Catholic University of Leuven:

• The first one was concentrated on the inter-library loan (ILL) (Pernot, E., Roodhooft, F., 2007).
• The second study was focused on the activities of acquisitions (Stouthuysen, K., Swiggers, M., Reheul, A.-M. & Roodhooft, F., 2010).

This studies showed how the time-driven cost accounting technique works in practice, by means of clear time equations, cost tables, and several recommendations.
ABC or TDABC?

Both methods are suitable for EBLIP in university libraries when the library managers need to ask themselves some specific questions, like what does it cost for:

- to acquire (order and purchase) a book?
- to catalogue a book?
- to provide an interlibrary loan?
- to provide a reference services?
- to acquire an electronic database? etc.
Strengths and weaknesses

* ABC method can only be implemented in collaboration with the accounting department of university if the library itself does not have one.

* TDABC method otherwise can be tested and implemented by the departmental managers even for each library department separately.
Conclusion

The implementation of cost accounting systems in libraries has historically been treated as a technical innovation rather than an organizational or management innovation.

It turns out that the results of such research are largely affected by what methods are used to identify the time spent on activities and how well the management of libraries or researchers were able to explain to the staff the necessity for such research.
Thank you!