

Cost Architecture Model

Pilot Evaluation: Executive Summary

1. Introduction

As a consequence of the severe financial climate, UK public sector expenditure is set to be considerably squeezed over the current decade at the very least. Within this context, Scotland's Councils will be under increasing pressure to generate efficiency savings while delivering the same or better levels of service to customers against a backdrop of rising demand levels caused by demographic and other pressures.

Understanding costs and identifying opportunities for savings will become even more important in the Scottish public sector. In partnership with the Improvement Service, two Scottish councils - South Lanarkshire and East Renfrewshire - have been piloting the esd-toolkit's Cost Architecture Model.

The Cost Architecture Model is an Activity Based Costing (ABC) method that aims to help councils develop a transparent understanding of the cost of resourcing their services in a way that might not be possible from traditional accounting systems.

The Cost Architecture Model uses a framework of interlocking standards contained within the Model's Service Cost Calculator. The Model seeks to provide a tool to support decision making by identifying:

- How resources are being used to identify waste and inefficiencies;
- The potential for services to improve given their current cost base;
- Where to focus quality improvement efforts.

During August to December 2009, the two councils piloted the Cost Architecture Model in specific service areas within the context of business improvement projects: South Lanarkshire, in Registration Services and East Renfrewshire, in Licensing and Trade Waste.

The pilot's principal objectives were to establish:

- The degree to which the Cost Architecture Model was easy to use, intuitive and generated useful data;
- The degree to which the range of User Guides and other supporting materials developed to support the Model's use were clear, easy-to-use, useful and comprehensive;
- The effectiveness of the external coordination and facilitation resources made available to the pilots;
- The suitability and effectiveness of workshops, of a dedicated Community of Practice and of the communications strategy during the management and execution of the pilots to meet stakeholders' needs;
- Finally, the usefulness of the results and outcomes from using the Cost Architecture Model as a means to identify waste and inefficiencies and to inform and drive service improvement.

2. Key Findings

The principal findings from the pilots revealed the following:

2.1 Service Cost Calculator

- (a) The Calculator facilitated quick data entry though where data had to be moved subsequently, it proved more difficult and time consuming to complete;
- (b) The Calculator was more complicated than initially anticipated and requires prior knowledge and understanding of MS-Excel;
- (c) Protection of cells in the Cost Calculator hindered a full understanding of the audit trail and in tracing the impact of a change to data entries;
- (d) The Cost Calculator does not automatically calculate the difference between ' As is ' costs and ' To be ' within the same report requiring a manual calculation to identify the savings;
- (e) Further benefit might have been derived if, prior to the first workshop, participants had been provided with an advance preview of the Cost Calculator.

2.2 Supporting User Guidance

- (a) The Calculator User Guide was useful though might have benefited from the inclusion of practical hints on how to populate the template and worked examples;
- (b) The Common Processes List was viewed as a helpful resource and sensibly categorised though some felt care had to be taken when selecting the categories. In some cases, it was considered difficult to apply to a process for example, instances emerged of a 'pre-transaction' process followed by 'fulfilment' process followed by 'pre-transaction' process again;
- (c) The Project Initiation Document was not widely referenced as participants preferred to make use of local scoping documents;
- (d) The Manager Guide, where used, provided a useful overview of the Cost Architecture Model process and the potential benefits. On the other hand, it was considered to be too long and that it might benefit from the inclusion of a step-by-step guide, a timeline to the process involved and an indicator of the type and number of staff necessary to be involved in the process. Further, though it was implied, the Guide did not include any direct reference to using Lean or similar methodologies as part of the process;
- (e) The Practitioner Guide, where used, was a useful document particular sections explaining Lean theory and its linkages to the Cost Architecture Model (specifically, pp 20 - 29).

2.3 Other Resources

- (a) Participants felt that The Improvement Service helped to keep the project and participants focused on the pilot's aims and timescales and provided an advocacy role on all participants' behalf;
- (b) The one-to-one meetings with esd toolkit's consultant were viewed as timely, appropriate and effective and contributed to making sense of the Calculator from a practical perspective. On the other hand, the effectiveness of these meetings might have been improved by scheduling the meetings between the 1st and 2nd workshops.

2.4 Pilot Group Meetings

- (a) Overall, the meetings, attended by all parties involved in the pilots, were viewed as a useful mechanism to share experiences, update all parties, to provide support and to facilitate communications;
- (b) Some participants felt that it might have been more effective to combine the 1st and 2nd workshops;
- (c) While the 3rd workshop provided an opportunity to update all stakeholders, one council considered this workshop less than productive given the mature stage of their own fieldwork;
- (d) Overall, a meeting between the pilot Councils and the esd toolkit consultant might have facilitated fuller discussion at a low level to share best practice and resolve problems;

2.5 Community of Practice

- (a) The Community of Practice, where used, was considered as a useful site to download documents and obtain information about the project. It was felt, however, that while forums might prove a useful vehicle to share best practice and to resolve issues, the frequency of meetings reduced the requirement to use the forums.

2.6 Communications

- (a) It was felt that a series of communications in the professional press, on the Improvement Service website, in Communities of Practice and presentations to the Scottish local government professional networks proved useful in raising the pilot's profile and in underpinning the work of the pilot locally within each participant Council and the wider public sector community.

2.7 Pilot Timeframes

- (a) Whilst it was generally felt that the timescales set for the pilot were achievable, however, it was considered that the pilot involved more work than initially anticipated and that the scheduling of some key milestones around the Christmas/New Year break proved challenging to meet.

2.8 Results and Outcomes

- (a) Usefully, it was generally considered that the pilot achieved its principal aims for each participating Council;
- (b) Participants felt that the data produced from the Cost Architecture Model's use created a useful 'As Is' baseline;
- (c) Participants felt that the data produced from the Cost Architecture Model's use helped elicit or validate opportunities to identify waste and inefficiencies;
- (d) Some felt that it would be useful to incorporate the Cost Architecture Model's use as an integral part of all Lean reviews, however, by necessity, some simplification of the process might be required;

3. Conclusions

The Cost Architecture Model aims to help councils develop a transparent understanding of the cost of resourcing their services in a way that might not be possible from traditional accounting systems. The evaluation of the Scottish pilots has suggested that the Cost Architecture Model's use helped elicit or validate opportunities to identify waste and inefficiencies, to produce useful baseline information and enabled a systematic breakdown of service costs and resource allocations for activities.

A clear consensus emerged from the pilots that the Cost Architecture Model might benefit, firstly, from some simplification of design and, secondly, from improved and more focused supporting guidance for the overall purpose of rendering the product more user-friendly both to practitioners and subject matter experts.

The expectation is that most of these concerns will be addressed when the new on-line version of the calculator and supporting documentation is released in March 2010.

Finally, the scheduling of key milestones around the Christmas/New Year holiday period proved challenging to some participants.

4. Recommendations for the Developers

On the basis of the findings and conclusions from this evaluation, the following recommendations are made:

1. The Cost Calculator's functionality should be enhanced to reduce significantly its complexity and to improve users' abilities to modify data entry and to perform sensitivity analysis i.e. 'what if ' scenarios to facilitate an audit trail and better understanding of the impact and consequences of changes in data entries.
2. The roadmap for the future development of the Cost Calculator should include the development on an online version offering improved access and functionality including, improved reporting capability to minimise the manual interpretation of results and to facilitate automatic generation of ' As Is ' and ' To be ' savings.
3. The User Guidance and supporting materials should be enhanced to render them more effective resources from the user's perspective. Specifically, they should:
 - (a) Be reduced in length;
 - (b) Incorporate clearer instructions including practical hints on how to populate the template and worked examples;
 - (c) An explanation of accounting terms, a guide to interpreting the results and a quick reference guide to MS-Excel;
 - (d) Include a step-by-step guide, a timeline to the process involved and an indicator of the type and number of staff necessary to be involved in the process. It is recognised that a project's timeline and the size of the project team will differ in relation to a project's size and complexity. On this basis, some indicative guidelines should be provided in respect of small, medium and large projects.
4. In future when using the Cost Architecture Model - and in common with all projects which involve scheduling staff availability - care should be taken to avoid scheduling of any key milestones around critical dates in the local government calendar likely to create pressures from competing priorities.

5. Postscript

Usefully, esd-toolkit has been proactive in addressing some of the limitations of the Cost Calculator in its present form and the resources and support made available to underpin it.

In consequence;

- The development of an online Calculator is underway and intended for release in March 2010;
- The existing User Guide will be replaced with a new version for the new online Calculator;

- Both the Manager's and Practitioner's Guide are undergoing a review. The revised guidance will emphasise how the Cost Architecture Model can be used alongside any business improvement methodology, including Lean Systems Thinking, Sprint and others, as esd-toolkit does not advocate the use of a single business improvement methodology;
- A one day Practitioner's Course has been developed to help project teams develop an understanding of ABC concepts and their practical application;
- The Common Process List has been reviewed, re-named as the Generic Process List and re-ordered to reflect a transaction life cycle.

esd-toolkit's envisages that these interventions will contribute towards addressing both the findings identified from this pilot and other feedback.

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