

Reasons for not changing to activity-based costing: a survey of Irish firms

Activity-based costing

63

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Abstract

Purpose – This paper aims to report on a survey of medium and large Irish firms to ascertain reasons for not changing to more advanced costing techniques, namely, activity-based costing (ABC). Developments in technology and recent poor economic conditions would suggest that the technique could be adopted more by firms, as they make increased efforts to keep costs under control.

Design/methodology/approach – A survey instrument was used to gather data drawing from the top 1,000 Irish firms. From a useable population of 821 organisations, a response rate of 20.75 per cent was achieved.

Findings – Findings show a rate of adoption of ABC of 18.7 per cent, which is lower than previous studies in an Irish context. The level of information technology in firms is not a key factor for non-adoption. Instead, the main reasoning for non-adoption revolve around stable existing costing methods, which firms expressed satisfaction with.

Originality/value – This research suggests the adoption of ABC is not necessarily driven by external factors such as technology and economic shocks, at least in the context of Ireland. It also suggests that costing techniques may be deeply embedded within organisations and are less likely to be subject to change.

Keywords Management accounting, Activity-based costing

Paper type Research paper

Introduction

Much has been written on the implementation and adoption of activity-based costing (ABC) in various settings and countries. Some of these studies mention reasons for non-adoption, including technical and organisational issues – see the literature review later. The consequences of rapid changes in contemporary information technology (IT) and the

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consequences of the recent and current economic climate have added an interesting dimension to any organisational research, and it is suggested in this study that this may also apply to the adoption of more advanced management accounting technique such as ABC.

There is an extensive body of literature within management accounting discussing IT as a driving influence on the discipline (Burns *et al.*, 1999; Granlund and Malmi, 2002; Russel and Siegel, 1999; Scapens and Jazayeri, 2003; Scapens *et al.*, 2003). However, much of this research pre-dates the advent of technologies such as cloud computing – which can decrease IT costs and thus potentially increase usage (Strauss *et al.*, 2014) – and the huge leaps in technical progress in the past 10-15 years. Thus, an examination of how IT developments have impacted ABC adoption is timely. Similarly, since 2008, the economic condition of organisations has changed due to recession. Libby and Waterhouse (1996) for example noted how economic change influenced the development of new management accounting systems and, more recently, Giannone *et al.* (2011) mention that the recent global recession has affected all countries. Given these economic conditions, it is postulated that firms have had to access their product and service costs and thus may have adopted more advanced costing techniques like ABC. When combined with the lower costs of IT, it could be expected that the adoption of ABC would increase. This paper explores reasons why adoption of ABC did not increase, based on a survey of Irish firms. Specifically, this paper explores why firms do not change from their existing costing system to a more advanced costing technique, namely, ABC.

Literature review

Shields (1995) studied the relationships between successful ABC implementation and technical, behavioural and organisational factors. It was found that unsuccessful ABC implementations could be due to an emphasis of architectural and software design. In contrast, Sohal and Chung (1998) note that difficulties with the introduction of ABC are correlated to managerial traits rather than technical issues and features. Clarke *et al.* (1999) analysed the adoption of ABC in Ireland. They compared the use of ABC by local companies to multinationals, finding that ABC was comparatively underused. Innes *et al.* (2000) reviewed the results of two UK-based surveys of ABC adoption in the UK's largest companies. They studied changes that occurred with the adoption of ABC and the status of users in companies over a five-year period, concluding there were important changes between 1994 and 1999. The rate of adoption had declined marginally, and a statistically noteworthy increase was detected in those not presently considering ABC. Drury and Tayles (2005) examined UK organisations' complexity of product costing system design choices and the extent to which potential explanatory factors influence the level of complexity of product costing system design choices in UK companies. They suggest that preceding studies have classified costing systems into two separate categories, as either a traditional costing system or an ABC system, but have not effectively captured the variety of procedures that exist. Al-Omiri and Drury (2007) examined the degree of possible contextual factors influencing the idiosyncrasies of product costing systems. They noted ABC adoptions at 15 per cent. Bhimani *et al.* (2007) investigated a number of organisations in seven countries: Japan, the USA, Canada, the UK, France, Italy and Germany. They tested the extent of adoption of ABC in organisations and the perceived extent of its usefulness, speed and perceived success of ABC implementation. They found that there were substantial variations in organisations that deemed ABC as beneficial. Fei and Isa (2010) studied factors influencing ABC success. They reviewed extant research on ABC published from 1995 to 2008, identifying some research gaps. They note little research on ABC adoption focussed on the role of organisational structure and culture.

Schoute (2011) re-examined the relationship between product variety and ABC implementation in Dutch medium-sized manufacturing organisations. The study distinguished between the adoption and use of ABC and enhancements in the measurement of product variety. The paper concluded that product variety was, on average, positively connected to the usage and adoption of ABC. Liu and Pan (2011) examined the implementation of ABC in a large public limited Chinese manufacturing company. They noted that Chinese companies were not as advanced in terms of office and accounting computerisation as those in the West. Fadzil and Rababah (2012) studied the contribution of effective design and application of ABC within the framework of Jordanian manufacturing companies. They found that 19.5 per cent of Jordanian manufacturing companies had a high level of satisfaction with ABC. They also noted that the barriers to implementation of ABC were linked to behavioural and technical complications.

As this study surveys Irish firms, a brief mention of ABC adoption in Ireland as reported in the literature is useful. Clarke *et al* (1999) reported an adoption rate of 11.80 per cent. Duffy and McCahey (2002) found an adoption rate of 55 per cent, while Pierce and Brown (2004) identified a rate of 27.9 per cent. A recent study by Fawzi (2008) indicated an adoption rate of 26.3 per cent. In sum, the adoption rate of ABC in Ireland seems to have increased and is more stable in recent times. The adoption rate *per se* is not the focus of the current study, but it does provide useful context as the studies mentioned are before the beginning of the global economic crisis which started in 2008.

Method

This paper draws on a wider study of management accounting in large and medium-sized Irish firms. In this study, the emphasis is on specific reasons why firms do not wish to change from their current costing system to ABC. Fei and Isa (2010) noted that the majority of research on ABC/M implementation uses a quantitative research approach. Consistent with this view, this investigation uses a survey questionnaire to extract data on the adoption of ABC and ABM, a methodology often used in studies of a similar focus (Al-Omiri and Drury, 2007; Askarany and Yazdifar, 2012; Bhimani *et al.*, 2007; Bjornenak, 1997; Innes *et al.*, 2000; Fadzil and Rababah, 2012; Schoute, 2011).

This current study uses *The Irish Times Top 1000* database to identify appropriate sample firms. Firms listed in this database are identified as the top 1,000 Irish companies by turnover. It should be noted that the database includes 176 companies from Northern Ireland. As the focus of this study is on ABC and ABM adoption by Irish firms, Northern Irish firms within the database were excluded from the study. A survey questionnaire was sent by post and email (where possible) to each of the sample firms. A total of 171 usable questionnaires were received, thereby giving a response rate of 20.75 per cent. Naturally, the questionnaire focuses on the sample firm's costing systems. One particular section of the questionnaire asks questions about the continued use of traditional costing systems (direct/marginal costing, absorption costing and other costing systems). This section contained four subsections and most questions were asked on a five-point Likert scale. The questions were divided into two groups. The first group of questions queried how business strategy of the organisation may have affected management accounting. This was achieved by seeking to measure the influence of various stakeholders on organisational strategy and the role of key organisational figures (e.g. CEO, CFO) in accounting change. The second consisted of why-type questions, focusing on why the organisation had not adopted more modern techniques and reasons for rejecting ABC. Respondents were asked why the organisations primary costing methods had not changed – possible

answers included time consuming, lack of understanding, satisfied with current method, high cost of change, no need to change, management does not want change and other reasons. Respondents were also asked to respond to a series of 24 statements (on a five-point Likert scale from completely agree to completely disagree), rating why the organisation rejected ABC as a costing method. These statements covered issues such as technology, management, organisational size and context, products/services offered, competitive environment and complexity of ABC.

Findings

Before detailing the findings from the relevant survey section, some general survey findings are useful. Table I shows the cost systems used by respondent organisations. As can be seen, just under 19 per cent of organisations adopt ABC. Interestingly, 51.5 per cent of respondents reported that their costing system had been in use for 20 years or more. On the respondent organisations, 68 per cent were publicly quoted companies, 32 per cent private companies. In terms of products and services offered, 85 of the 171 companies offered mainly products for sale, the balance offering services. In terms of organisational size, as the population was derived from Ireland’s largest 1,000 organisations, 97 per cent have turnover greater than €5 million, with 68 per cent greater than €50 million. Table II details the industry sector of respondents, and while manufacturing is most prevalent, there is no predominant sector represented.

In terms of reasons why ABC was not adopted or reasons why ABC was rejected, findings reported in Tables III and IV, respectively, offer some interesting insights.

Table I.
Cost systems used

Cost system	No. of firms	(%) of sample
Direct costing system	71	41.5
Traditional costing system	58	33.9
ABC	32	18.7
Other	10	5.8
Total	171	100.0

Table II.
Respondent industry sector

Industry	(%)
Agribusiness	7.1
Construction/property	8.9
Consultancy	8.9
Transport/tourism	8.9
Technology	8.3
Banking	5.4
Energy/resources	5.4
Food and beverage	4.8
Insurance	4.2
Retailing	4.2
Health/pharmaceuticals	13.7
Manufacturing	16.7
Media/marketing	1.8
Non-profit	1.8

The results shown in Table III suggest that there are no technical or knowledge barriers to implementing ABC. Rather, there is a strong sense of either the organisation is happy with current systems or there is no need to change – as noted above, some firms said their costing systems were in use 20 years or more. Findings reported in Table IV reveal that just under

Activity-based costing

Survey item	(%)
Time-consuming	15.3
Lack of understanding	8.9
Satisfied with the current method	20.6
High cost of change	8.4
No need for change	18.4
Senior management does not wish to change	12.6
Other reasons	8.2
None of the above	7.5
Total	100.0

67

Table III.
Reasons for not adopting ABC

Survey item	Q No.	Completely disagreed	Disagreed	Neutral	Agree	Completely agreed
The company is satisfied with the current method	Q1	0.7	5.1	9.6	57.4	27.2
The change is perceived as time consuming	Q2	5.1	6.6	41.9	37.5	8.8
There is a lack of IT resources	Q3	11.0	11.0	52.9	16.9	8.1
The existing information system does not support these methods	Q4	8.1	10.3	50.7	24.3	6.6
The high cost of implementation and adoption	Q5	5.1	12.5	50.0	25.7	6.6
There is a lack of understanding at an accounting staff level	Q6	11.8	44.9	29.4	13.2	0.7
There is a lack of experience of management accounting staff	Q7	10.3	53.7	19.9	16.2	0.0
The decision can not be taken at our level	Q8	16.9	44.1	19.1	15.4	4.4
Senior management does not support changes to these methods	Q9	11.0	22.8	49.3	14.7	2.2
Middle management does not understand the methods	Q10	9.6	21.3	51.5	16.2	1.5
First-line management does not understand the methods	Q11	8.8	19.9	47.1	21.3	2.9
We use a customised methods to calculate costs	Q12	5.1	13.2	39.0	30.9	11.8
We have a short product life cycle	Q13	19.9	39.0	23.5	11.0	6.6
We only have a single product line	Q14	36.0	44.9	11.0	5.9	2.2
Our company is not large enough	Q15	28.7	44.1	18.4	7.4	1.5
Senior management does not understand these methods	Q16	18.4	39.7	22.8	17.6	1.5
ABC/ABM does not provide valuable information	Q17	11.0	17.6	52.2	14.7	4.4
It is too complex to implement	Q18	11.0	17.6	50.0	19.1	2.2
There is no need to implement these methods	Q19	2.2	9.6	22.1	47.8	18.4
Shortage of management accounting staff	Q20	10.3	22.1	46.3	16.9	4.4

Table IV.
Reasons for rejecting ABC

94 per cent (Q1) of respondents who rejected ABC say they are happy with their current cost system and a vast majority rate the adoption as a time-consuming exercise (Q2). There is a perception of high cost of ABC implementation (Q5), which would appear to be less related to the cost and availability of technology (given responses to Q3 and Q4). Based on the responses from Q6 to Q11, respondents did not seem to reject ABC on the basis of a lack of knowledge, appropriate staff or authority to take the implementation decision – the majority of responses being either neutral or one of the disagree options. Based on Q12, it would seem many firms have their own customised costing methods, which may explain the level of satisfaction with the existing costing method. The responses from Q13 to Q15 suggest that firms responding do not have short product life cycles, are multi-product and are large. These three factors combined would suggest the firms may be suitable candidates for ABC or similar complex costing methods, as suggested by the literature review earlier. Q16 interestingly suggests that senior management are likely to be quite knowledgeable on ABC, while Q17 suggests perceived complexity is still an issue, supporting the findings of Drury and Tayles (2005).

Finally, as can be seen in Table V, responses suggest that both financial and management accountants are quite involved in accounting change projects in general, as one might expect. However, the involvement of CEO, Chairperson and general management is less prevalent. This is in contrast to literature which suggests top-management involvement is a key success factor to change projects, which may be a contributory factor the low adoption of ABC – see for example Parr and Shanks (2000) who note top management support as critical for enterprise resource planning projects.

Concluding comments

This brief study identified that ABC adoption rates by Irish firms is low, particularly when compared to the findings of previous research of a similar nature and context (Pierce and Brown, 2004). This is despite respondents in general not noting technical or knowledge issues as a reason for non-adoption. It would seem that many respondent firms are satisfied with more traditional costing methods and have been for many years. These methods would appear to be quite resistant to change, even in the event of economic shocks and/or increasing availability of IT. This may be attributed to the costing methods of many respondent firms being ingrained and resistant to change. Some prior research (Burns and Scapens, 2000; Quinn, 2014) suggest management accounting practices tend to be more stable over time and may even be institutionalised. The findings of this study would support these claims.

This study is limited by its scope and method. A more detailed case study analysis of Irish or other firms is needed to fully support suggestions raised in the study. Such research can delve into more detail on the nature of existing cost methods and barriers to change in firms.

Table V.
Involvement in
accounting change
projects

Role	Never (%)	Seldom (%)	Sometimes (%)	Most of the time (%)	Always (%)
Chairperson	26.8	38.4	20.3	8.7	5.8
CEO	9.2	14.9	40.4	18.4	17.0
Manager	8.5	11.3	47.5	23.4	9.2
Financial accountants	3.5	3.5	24.8	46.1	22.0
Management accountants	1.4	2.9	15.0	53.6	27.1
General management	7.8	8.5	55.3	22.7	5.7

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