

Activity based costing in small uk manufacturing companies



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(*Keywords: Activity-Based Costing, Small Business, Cost drivers, Manufacturing, traditional costing*)

Confidentiality Statement

This study contains confidential and sensitive information. It is not open to the public and require special precautions to protect it from unauthorized use, disclosure, modification, and destruction.

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Abstract

Small and medium enterprises have a potential of using Activity Based Costing (ABC) as a management tool. While it is true that Activity Based Costing is being used mostly by large organisations, it can work just as well for small and medium companies. It is gaining importance in small and medium organisations that are aiming for a major share in business by improving productivity and quality.

The present study is an attempt to explain why there is a need for small manufacturing companies in the UK to identify the usefulness of Activity Based Costing to improve their overall performance and hence their

competitiveness. The study is based on both the primary and secondary sources of information. The information collected clearly reveals that small manufacturing companies in the UK need to apply activity based costing for a variety of reasons with the most popular being to calculate more accurate product costs. Similarly, a variety of reasons have also been identified why these companies never considered activity based costing.

This study reviews the cost management practices in small manufacturing companies in the UK. It takes the case of UK textile and apparel industry to be representative of the small manufacturing sector to explain the indifference. Thereafter, an attempt to highlight the possible impediments which are preventing the implementation of Activity Based Costing in small manufacturing companies in the UK. Finally, the study attempts to direct the change in approach required for a smooth implementation of activity based costing in small manufacturing companies. Finally, some future research directions are presented in the area of activity based costing in small manufacturing companies.

Glossary and Information

Activity

ABC Based

Costing

Activity Activity

Based Based

Costing: Costing is a
 costing

method
that traces
costs
incurred to
the
activities
involved
therein. It
explores
the
relationship
between
activities
and costs.

CBI Confederati
on of
British
Industry

Cost A
Driver characterist
ic of an
activity
that leads
to

incurrence
of costs by
that
activity.

The
process of
identifying
Costing the costs of
the
business or
a product

Tradition Allocation
al or
Costing assignment
of factory's
indirect
costs to the
products
manufactur
ed on the
basis of
volume
such as the
number of

units
produced,
the direct
labor hours,
or the
production
machine
hours.

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Introduction

Costing methodology is indicative of how a company determines the cost of its products. Choosing an appropriate costing methodology is important for the company as senior management takes strategic decisions related to product lines, product prices etc on the basis of accurate and up-to-date costing information. If the costing methodology is not proper or up-to-date there are chances of inappropriate decisions being taken which may adversely impact the competitive standing of the company.

While large companies have realised the importance of moving away from traditional costing systems based on volume-based allocation of overheads, small manufacturing companies still exist in the traditional costing maze which has lost relevance in the current competitive manufacturing environment. Current environment is based on cost-driver driven costing especially when there has been an increase in overhead and a substantial decline in direct labour. Large companies have moved to approaches such as Activity Based Costing which present a radically changed alternative to

traditional costing whereas small and medium sized manufacturing as well as non-manufacturing companies lag behind.

The focus of the current study is application of Activity Based Costing in small manufacturing companies in the UK. This is especially relevant when the experience of a small manufacturer indicates that a direct-labor based, plant wide manufacturing rate does not accurately reflect the cost of individual products. The management of a few manufacturing companies have taken the pain to assemble a multidisciplinary team to apply the basic concept of Activity Based Costing to create a cost model that would accurately cost out each of the company's parts.

What is Activity Based Costing?

Activity Based Costing is a costing method pioneered by Robin Cooper, Robert Kaplan, and H. Thomas Johnson for allocating costs to products and services. It helps managers make the right decisions especially regarding product mix and competitive strategies.

The system traces costs incurred to the activities involved therein. It explores the relationship between activities and costs. Activity Based Costing treats activities as the primary cost drivers and their costs are traced to the product for which they are performed. Activities consume overhead resources, and products (or projects or processes) demand activities, the cost of products is related to the cost of resources. (*Cooper, 1990*).

By design, Activity Based Costing provides not only relatively accurate cost data, but also information about the origin of the cost (*Cooper and Kaplan*).

Various companies, especially where the management is progressive and <https://assignbuster.com/activity-based-costing-in-small-uk-manufacturing-companies/>

managers have some experience in Activity Based Costing have implemented it.

Literature Review

Experience with Activity Based Costing, as shared by managers who have tried and tested the methodology, clearly highlights that such a costing method improves cost measurement by organising information around activities.

Prior studies, research work and existing literature in Activity Based Costing clearly indicates that its implementation can “ *radically change how managers determine the mix of their product line, price their products, identify the location for sourcing components, and assess new technology*” (Turney, 1989). Despite the various critical areas which these studies touches upon there still are many more are largely unexplored. Most of the literature in the area of Activity Based Costing focuses on its application in the large sized manufacturing and non-manufacturing companies. Small companies, both manufacturing as well as non-manufacturing, have not been focused as there are not many instances of application Activity Based Costing in such companies.

Most of the research work in Activity Based Costing has primarily focused on large manufacturing companies and that too their experience post-implementation. Some important contributors in this respect include *Gietzmann, 1991, Innes & Mitchell 1990, Bhimani & Pigott, 1992; Friedman & Lyne, 1995, 1999; Kocakulah, Fowler & McGuire, 2000; Granlund, 2001.*

Another aspect which has interested many researchers has been why some companies for reject Activity Based Costing. In this context contributors of *Cobb, Innes & Mitchell, 1992* and *Waeytens & Bruggeman, 1994* are worth highlighting . However, researchers have somehow not given due importance to investigation into reasons why operating units do or do not investigate Activity Based Costing and how they undertake the ABC investigation decision. A review of the current literature relating to Activity Based Costing in small as well as large companies was undertaken to understand the reasons of its poor take up amongst small UK manufacturing companies. Some existing work is highlighted in the paragraphs that follow.

Shields & McEwen (1996) in their study titled *The Impact of Activity-Based Costing Techniques on Firm Performance*, point out that adequate resources, both internal as well as external, are needed to design and implement Activity Based Costing. Internal resources include organisation wide commitment of the top managerial staff, and external resources include team of experts or consultants and suitable Activity Based Costing software. Shields & McEwen stressed upon the importance of the role played by the external consultants. As against it, Cooper et al. (1992) in his study clearly indicates that Activity Based Costing can be successfully implemented with external consultants playing only facilitating role in the development and running of the system. The external consultants can be involved in initial training, assisting the internal team, transferring data into the Activity Based Costing model, and assisting in analysing and preparing reports and presentations. This view is also supported by the study titled *A framework for assessing cost management system changes: the case of activity based*

costing implementation at General Motors conducted by Anderson (1995).

Anderson found that consultants provided external validity to Activity Based Costing.

Krumwiede (1998) studied the relationship between stages and factors in ABC adoption in a survey of U. S. manufacturing firms in his work titled, *The implementation stages of activity-based costing and the impact of contextual and organisational factors*. He contended that the early adoption of Activity Based Costing is influenced by both external as well as internal factors. External factors include cost distortion and decision usefulness of cost information while internal factors include team size. Krumwiede also examined the various factors that influenced the successful implementation of Activity Based Costing. According to him, these factors include: the level of top management support; the level of non accounting ownership and training and purposes.

Another important contribution that needs a special mention here is the recent work by Anderson (2002). Anderson, through his work titled *Factors influencing the performance of activity based costing teams: a field study of ABC model development time in the automobile industry*, addresses the issue of designing an Activity Based Model. The model builds upon team dynamics, composition, outcome and the external environment. This work of Anderson strengthens the understanding of the factors influencing the application of this accounting technique for achieving and analyzing routine systems.

Finally, Douglas T. Hicks (1999) in his work titled *Activity-Based Costing: Making It Work for Small and Mid-Sized Companies* focuses on the “ activity-based” behavior of costs in small to mid-sized businesses. He describes the use of activity-based costing in small- and mid-sized companies to make better business decisions. According to Hicks, “ activity-based costing” is the concept to adopt, not the system to install, strongly implying that there cannot be uniform “ activity-based costing systems”

Rationale of the Study

From the literature review conducted one can observe that there are still issues in Activity Based Costing which remain partially unexplored. One such issue relates to why and how small sized operating units investigate Activity Based Costing in manufacturing industry. This is the area the study attempts to explore, that is, why small manufacturing companies investigated, were currently investigating and were intending to investigate ABC; why they did not investigate ABC; how they investigated, were currently investigating and were intending to investigate the appropriateness of ABC. The focus of the paper is primarily UK based small manufacturing companies.

Though research in large companies provides a direction to research in small companies, it is important to distinguish between the costing between large and small manufacturing companies. The proportion of direct and indirect costs may be different but the cost structure of large sized firms is not different from small manufacturing firms. Like large firms the total cost of small manufacturing firms is also have direct material costs, direct labour costs and fixed overhead costs. However, fixed overheads make up a larger proportion of total costs in large sized manufacturing firms. These

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differences make it difficult to consider Activity Based Costing in a single sample of all types of firm. Therefore this paper examines the issue of investigating ABC for a sample of only small manufacturing firms. (*Refer Appendix A: Business Report Proposal*)

Although the literature has reported numerous implementations of Activity Based Costing in large manufacturing companies, there has been limited accounting of Activity Based Costing being embraced by small manufacturing companies (*Turney, 1989*). This is perhaps very true for UK.

Objectives and Methodology

For the purpose of this study a small manufacturing company is defined as a company employing less than 100 employees.

The objectives of the study are:

- Analyse state of Activity Based Costing in small manufacturing companies in the UK
- Identify the factors preventing a company in UK from adopting Activity Based Costing in UK
- Determine the role of technology in implementation of Activity Based Costing and whether it is the major deterrent for the small companies
- Examine the role of resource poverty in prevention of small companies from adopting Activity Based Costing

The study employs a longitudinal case-study methodology, which focuses on data gathering from manufacturing companies which are representative of UK small manufacturing companies that can undertake activity based

costing. It takes the case of UK textile and apparel industry to be representative of the small manufacturing sector to explain their indifference to costing methodology. The case study is expected to highlight how a company can improve its profitability if it moves to an ABC system.

The study may provide a further scope of future research undertaken to evolve a methodology through which small companies can adopt Activity Based Costing at low risk and with minimal investment. Besides attempting to highlight the need to evolve a methodology for enabling small companies to smoothly switch from a traditional costing system to an Activity Based Costing system, the study will be undertaken as a practical application of a financial management tool that would be useful to academia, managers in small manufacturing companies and government planners looking for ways to increase profitability for small UK firms.

Sources of Data / Information

This is primarily an exploratory and descriptive study and uses both primary and secondary sources. These sources complement each other and help reduce bias. However, most of the information comes from secondary sources.

The rationale of primary data collection is to validate the information collected from secondary sources and also to get an authoritative opinion on the information. Interviews were used as part of a wider project about product costing in small manufacturing industry to obtain information about operating units experience of ABC.

The respondents were asked to answer the classify their organisation as currently using ABC, intending to use ABC, currently investigating using ABC, intending to investigate using ABC, rejected ABC but established a system of activity analysis or cost driver analysis, implemented ABC and subsequently abandoned it, investigated using ABC and rejected it, rejected ABC but never investigated its possible use, and other.

Sampling for Primary Information

The Primary data has been collected by interviewing managers (*refer Appendix B and C for Structured Interview Format and example of interview transcript*) with job titles of cost, management or manufacturing accountant, and employed in small manufacturing companies in textile and apparel industry in the UK. In all there were 7 respondents. Convenience sampling was relied upon as availability of the senior managers was critical factor in information collection.

The prime sources of secondary information include the existing work in the area and the published articles in premier Management Accounting journals. Information has also been collected by searching specific data from yahoo and google search engines.

Data Analysis

Data has been compiled into tables and analysed. Qualitative data includes opinions of respondents on a certain issue, reasons for a certain behaviour; and descriptions of certain procedures, practices or perceptions with which the researcher is not familiar.

Problems and Challenges Faced

The problems or challenges presented by the approach are:

- The choice of 'appropriate' representative manufacturing companies. A random selection of the small companies within Textile and Apparel Industry was undertaken. However, the extent to which these are representative of the small manufacturing companies in the UK is questionable.
- Collection of data and information related to internal processes from senior managers and employees. It was extremely difficult to make them share the internal information.
- Availability of senior managers for interviews was a very challenging task. It involved too much of effort and skepticism from their end.
- No data is available on the number of small manufacturing units that have adopted Activity Based Costing
- It was difficult to collect sufficient data to be considered representative of the small manufacturing companies as the study was restricted in term of time available

Before discussing the main findings, there is a need to examine the state of the manufacturing sector in UK in general and the State of UK Textile and Apparel Manufacturing Companies, in particular.

UK Manufacturing Sector

The UK manufacturing sector is constituted by the large, medium and small manufacturing companies. Overall manufacturing output accounts for about 20% of the national economy, generating more than £150bn a year. The

sector also employs four million people – representing roughly 14 % of everyone working in the UK. According to Confederation of British Industry (CBI), further 2.4 million jobs in the services industry depend upon manufacturing. Manufacturers also provide 60% of the UK's exports which is a sizeable contribution for a country that is heavily involved in international trade.

Figure 1: Contribution to Total Manufacturing Wealth (Source: Confederation of British Industry, 2000)

The focus of the study is on UK small Textile and Apparel manufacturing industry to be representative of the UK small manufacturing companies.

State of UK Textile and Apparel Manufacturing Companies

The second half of 20th century saw an exodus of UK Textile manufacturing units overseas. This was due to various reasons. The most important ones were:

- The low cost of manufacturing in developing countries
- Increasing globalisation of companies
- The growing importance of branding and marketing

Despite this exodus, in 2005, the UK clothing and footwear industry was worth £44.45 billion. The UK textile manufacturing industry employs an estimated 89,800 people in 3,650 firms (2001). In 2001, textile-manufacturing sales amounted to £7.26 billion and exports were worth £1.35 billion. The main growth sector within the industry is technical textiles.

The UK has a buoyant and expanding technical textiles sector. (Source:

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Clothing and Footwear Industry Market Report, Key Note, 2004 and 2005)

Large-scale manufacturers have almost vanished from the UK. The core business now is the sourcing and supply of goods. However, there is a trend for some large retailers to become involved in both manufacture and sales. Even in the small sector there is a small segment which continues to manufacture textiles on a small scale and competes with global brands. Some of these companies have already switched over to Activity Based Costing.

Presently, the UK is among the top five countries developing product durability and innovation, particularly in the area of fire resistance material, where the UK is the world leader.

Textile industry within the UK is localised.

- The major regions for textile companies are the East Midlands, the North West, London and Central Scotland.
- The major regions for textiles are the East Midlands, the North West, Central Scotland, Yorkshire and Northern Ireland. London has relatively few textile companies.

The majority of the largest retailers have branches in all of the major cities, however, their head offices are generally concentrated around London and the South East.

From the above discussion it is clear that manufacturing companies play an important role in the UK economy. This holds true for small companies also.

However, these small companies exist amidst ever-increasing competition not just from large companies but also from other small companies. The <https://assignbuster.com/activity-based-costing-in-small-uk-manufacturing-companies/>

success of a company is based on its ability to delight its customers by manufacturing the right mix of products that are high in quality and low in price. This entails a company being able to use modern and realistic methodologies including modern financial techniques, such as costing techniques, in its approach to handling competition. In this light, studying the extent of adoption of state of art costing methodologies like activity based costing in small textile manufacturing companies in UK as representative manufacturing companies throws light upon certain critical factors which will have an impact on the future growth of the sector.

Main Findings of the Study

The main findings of the study are summarised below:

1. Most of the small manufacturing companies are aware of the need to need to move to Activity Based Costing system as against traditional costing system. Table 1 highlights the awareness of need for Activity Based Costing among the senior financial managers interviewed. More than 70% respondents had thought about Activity Based Costing at one point or the other. Almost 43% intended to use Activity Based Costing but because of certain impediments and circumstances, discussed later, they were unable to do so. Nearly 60% of the total respondents were either using Activity Based Costing or intended using it. However, a substantial percentage of the respondents had never considered activity based costing. It is also interesting to note that at least 1 respondent (representing 14. 3%) rejected Activity Based Costing in the present competitive times.

Table 1: Activity Based Costing Quotient

Using Activity 14.

Based Costing 3%

Intending to use 42.

Activity Based 8%

Costing

Rejected Activity 14.

Based Costing 3%

Never

Considered 28.

Activity Based 6%

Costing

The figures presented in Table 1 clearly indicate that there is a need to investigate why small manufacturing companies in UK did or did not consider Activity Based Costing and the basis of accepting or rejecting Activity Based Costing.

2. The 60% respondents who indicated an interest in Activity Based Costing gave various reasons for its importance in the present competitive times. Some of the main reasons given by the respondents include the following:

1. Do accurate product costing

2. Provide an objective method of assigning indirect overheads to products
3. Required for objective performance measurement
4. Internal Pressures
5. Helps in customer profitability analysis
6. Assign marketing costs to products
7. All organisations were talking about it or it was in vogue

However, organisations that looked at Activity Based Costing because it was in vogue did not really adopt it because they did not appreciate the need for changing to Activity Based Costing

Few reasons for adopting or evaluating Activity Based Costing are listed below:

“ You can only control that which you can measure. Both Traditional as well as Activity Based Costing help you to measure. However, the degree of control is determined by the quality of the measurement and traditional costing does not ensure that”

“ It is the buzz word. It is everywhere.....conferences, professional journals, seminars, discussion forums ...”

“ My experience with ABC in my previous company is the main reason for looking at it for my current company”

Thus, as Ralf Sorenson (Head of SIS Airlines) states:

Activity Based Costing is 30% understanding and using techniques correctly, and 70% the ability to convince others to accept beneficial change. No matter how brilliant the measurement, if people reject it, nothing has been achieved and the analyst has failed.”

(Source: CPS- Activity Based Costing Guide accessed from http://www.cps.gov.uk/publications/finance/abc_guide.htm)

3. The 40% respondents who either rejected Activity Based Costing or never thought about it also had their own reasons.
 1. The organisation never felt the need to do so
 2. Lack of knowledge about Activity Based Costing
 3. The implementation had huge financial implications
 4. Small team of experienced accountants. Most of the times the expertise in use of financial tools and techniques is lacking
 5. It is difficult to explain the concept of Activity Based Costing to the employees. Till the concept is understood by one and all it will not be possible to implement it.
 6. Small organisations are struck by resource poverty.

Table 2 highlights the main reasons given by the respondents:

Table 2: Reasons for Not Considering Activity Based Costing

Number

of

Respos

es

Entire

organisatio

n will not

4

understand

the

concept

Lack of

6

expertise

Excessive

time and

2

effort to

operate

Traditional

methodolo

gy serves 3

the

purpose

Resource

5

crunch

** The respondents gave multiple reasons. The table only highlights the main reasons*

4. The organisations that either applied or intended to use or rejected Activity Based Costing evaluated or proposed to evaluate Activity Based Costing used or proposed to use:

1. Consultants or specialists in the area
2. Self managed in-house implementation

Though using consultants is a useful approach, it can prove to be extremely expensive and beyond the reach of many of the small organisations. Small manufacturing organisations realize that if they do a cost benefit analysis of implementing Activity Based Costing taking help from consultants the costs will outweigh the benefits. However, a few respondents emphasized the importance of the consultant in obtaining top management support for Activity Based Costing.

In contrast to using consultants, the in-house self-managed implementation is haphazard. Activity Based Costing is not treated as a special project and is conducted as a part of normal work duties. This may primarily be one of the main reasons for not implementing Activity Based Costing in many such small manufacturing organisations.

From the information gathered during the interviews with our 7 respondents, it seems that high cost and complexity of Activity Based Costing has discouraged most small manufacturing companies from even trying out Activity based Costing and thus improving their costing information.

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