

**ACTIVITY BASED COSTING SOFTWARE FOR MANUFACTURING
INDUSTRIES**

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**A project report submitted in partial fulfilment of the
requirements for the award of the degree of
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To my beloved mother and father... Puan Hajah Norpipah and Tuan Haji Shapi'i

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ABSTRACT

Manufacturing companies in Malaysia face ever-increasing competition in today's global marketplace. Companies must react quickly and manufacture high quality, low cost products to be successful in this new environment. Nowadays, complexity-manufacturing technology has led to increasing indirect cost or overhead cost in the calculation of the total production cost. The failure of traditional costing method in tracing overhead cost to products has caused the distortion of product cost. A new costing method named Activity Based Costing (ABC) has been introduced as an alternative for solving the problem. This ABC method has been implemented for product costing. The main purpose for this study is to develop computerized ABC system for the manufacturing companies. This software enables the companies to identify the characteristics of activities and the costs involved in activities. ABC can assign dollar values to every activity or process. The ABC software is hoped to improve further the process planning and action of manufacturing companies through cost savings and improving revenue.

ABSTRAK

Syarikat-syarikat pembuatan di Malaysia pada hari ini sedang bersaing untuk menempatkan diri dalam pasaran global. Syarikat pembuatan ini perlu bertindak pantas dan perlu menghasilkan produk yang berkualiti tinggi, harga kos yang rendah supaya boleh berjaya di pasaran hari ini. Pada masa sekarang, harga kos untuk sesuatu produk dikira berdasarkan jumlah kos langsung dan kos tak langsung yang digunakan ketika mengeluarkan produk tersebut. Biasanya kegagalan kaedah pengekosan secara tradisional adalah mengenalpasti kos tak langsung yang boleh menyebabkan perubahan pada kos produk. Satu kaedah baru yang dinamakan kaedah pengekosan berasaskan aktiviti (ABC) telah diperkenalkan sebagai alternatif untuk menyelesaikan masalah tersebut. Kaedah ABC ini digunakan sebagai salah satu kaedah untuk mengekoskan produk. Tujuan utama kajian ini dilaksanakan adalah membangunkan perisian ABC yang boleh digunakan di syarikat-syarikat pembuatan. Perisian ini mampu untuk mengenalpasti ciri-ciri aktiviti dan kos untuk setiap aktiviti yang terlibat semasa pengeluaran produk. Penggunaan perisian ini diharap dapat membantu syarikat pembuatan membuat perancangan pengeluaran dan mendapat keuntungan melalui maklumat kos yang tepat.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The present era of global competition leading all companies towards a renewed commitment to excellence in manufacturing. Attentions to the quality of products and process, level of inventories of workforce policies have provided an edge to become world-class companies (Gunasekaran, 1999). However, most manufacturing companies today still use the same traditional costing that were developed decades ago for competitive environment which is drastically different from today. The main reasons for adopting new costing system is traditional costing systems tend to distort product costs and lead to poor strategic decision-making (Kaplan, 1990). One innovative costing method designed to deal with the deficiencies of traditional costing systems is Activity Based Costing (ABC) which was first introduced by Kaplan and Cooper in 1980's. ABC is an information system that maintains and processes data on a firm's resources, activities and products (Wan Harun, Jafri, and Zailis, 2001). It is used to traces resources costs to each activity and uses various cost drivers to trace the cost of activities to product. The use of ABC can be extended to identify performance of each activity and

cost objects. In this study I will develop ABC software that can be use in manufacturing companies. This ABC software will be programmed to facilitate the company in product costing that use ABC method.

1.2 Project Title

Activity Based Costing (ABC) Software for Manufacturing Industries.

1.3 Problem Statement

Manufacturing companies in Malaysia face ever-increasing competition in today's global marketplace. Companies must react quickly and manufacture high quality and low cost products to be successful in this new environment. Examples of companies succeed in implementing ABC are Volkswagen (Canada) and Cummins Engine Company (UK) (Gurses, 1999). As the manufacturing environment moves to computer-integrated manufacturing and the products that are manufactured are diverse, conventional cost systems can report seriously distorted product costs.

To make proper decisions, managers must have accurate and up to date costing information. Traditional costing systems based on volume-based allocation of overhead have lost relevance in a manufacturing environment (Roztocki, et. al, 1999). Traditional

costing systems tend to distort product costs and lead to poor strategic decision making. This is why a new cost management system is needed. The managers must determine the “true” cost for a product. Inaccurate cost information can result in incorrect decisions, because not all of the consequences have been taken into account. Furthermore, because of distorted cost information, an insufficient analysis/allocation of overhead costs can result in overpriced high-volume products and under priced special products. These problems led to the idea of Activity Based Costing (ABC), particularly in companies producing a range of products. ABC aims not only to allocate overhead costs more accurately but also to pinpoint areas of waste. Underlying ABC is the assumption that activities (such as purchasing, receiving, setting-up and running a machine, etc.) consume resources, and products consume activities. The performance of activities triggers the consumption of resources that are recorded as costs in the accounts. This means that ABC traces costs to products according to the activities performed on them. The result is more accurate cost information, with less distortion. Three benefits accrue from this: a focused manufacturing strategy, products designed to increase customer value, and continuous improvement of operating activities throughout the manufacturing organisation (Helberg, Galletly and Bicheno, 1994).

ABC is a costing method used to trace overhead costs directly to cost objects (i.e. product, services). ABC is a method that calculates costs based on activities and it is suitable especially for multi-products company. It is more accurate method to calculate product's cost. ABC allocates all resources cost, first to activities and then to product. Resources are economics element that applied or used in the performing of activities and indirectly support cost objects. The ABC software shows how ABC system is using to reduce process and product costs.

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