

*Addis Ababa*  
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**ASSESSMENT OF COST ACCOUNTING PRACTICE: THE CASE OF  
DES GENERAL TRADING PLC IN ETHIOPIA**

**By:**

**Kubrom Negash**

**A Thesis Submitted to the Department of Accounting and Finance  
in Partial Fulfillment of the requirement for the Master of  
Science Degree in Accounting and Finance**

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**STATEMENT OF DECLARATION**

I, Kubrom Negash Desta, hereby declare that this thesis entitled “**Assessment of Cost Accounting Practice: The Case of Des General Trading in Ethiopia**” submitted by me for the award of the Degree of Master of Accounting and Finance, to Addis Ababa University, Ethiopia, to the best of my knowledge, is my original work prepared under the guidance of Habtamu Berhanu (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted in any other higher learning institution for the purpose of earning any degree.

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Place and submission of date:

Addis Ababa University

June, 2019

**ADDIS ABABA UNIVERSITY**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

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**STATEMENT OF CERTIFICATION**

This is to certify that the thesis entitles: “Assessment of Cost Accounting Practice: The Case of Des General Trading PLC in Ethiopia” was carried out by Kubrom Negash under the supervision of Habtamu Berhanu (PhD), submitted in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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## **ACKNOWLEDGEMENTS**

First and foremost, I really want to thank with a heart full of praises and adorations to the Almighty God, the provider of knowledge, for enabling me to complete my Master degree program in the right spirit and for the unlimited support and protection in all aspects of my life.

Most importantly, I am deeply indebted to my research supervisor Habtamu Berhanu(PhD) for his essential guidelines and unwavering patient assistance in doing the thesis. I have benefited greatly and have retained the knowledge of accounting and research that my supervisor readily shared with me. Great appreciation also goes to Addis Ababa University, department of accounting and finance for offering me the opportunity to do this study and all my lecturers and administration staff of the department who contributed in one way or another in fulfilling my interest of knowledge.

Finally, my deepest thanks and appreciation to my family, for being understanding, patience, kind, and giving full and moral support throughout the period of my study.

Lastly and not least, am also indebted to my class of Master of Science in Accounting and Finance colleagues and friends and all those who assisted me in one way or another throughout this period of study and though I may not name each one of you individually, your contribution is recognized and appreciated immensely. I owe you my gratitude.

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## ACRONYMS

ABC	Activity Based Costing
ABCM	Activity Based Cost Management
CFO	Chief Finance Officer
CMAP	Cost and Management Accounting Practice
COGM	Cost of Goods Manufactured
DM	Direct Material
ERP	Enterprises Resource Planning
GAAP	Generally Accepted Accounting Practices
IFRS	International Financial Reporting Standard
JIT	Just In Time
MRP	Material Resource Planning
PP	Polypropylene
PPR	Polypropylene Random
PVC	Polyvinylchloride
TQM	Total Quality Management

## **ABSTRACT**

*The purpose of this study is to assess and examine the cost accounting practices utilized by Des General Trading PLC in Ethiopia. This study adopted a descriptive survey design. The sample size of the study consists of 25 employees of the company, using self-administered questionnaire and structured interviews with selected accountants of the finance departments and other department staffs. The major findings of the study are as follows: the most widely used product costing method is process costing and the technique used is absorption costing; the most widely used overhead allocation is units produced; the most important area where the cost information is used for financial accounting, inventory valuation and to some extent for price decisions which is low on other decision making and cost control. The findings indicate that company perceives traditional cost accounting is still important and yet not familiarized with the new cost accounting practices such as activity based costing. This study recommends the creation of awareness about the importance of information for decision making practices and the advantage of using activity based costing.*

*Key Words: Cost Accounting, Cost Accounting Information, Decision Making*

# CHAPTER ONE

## 1. INTRODUCTION

### 1.1. Background of the Study

Cost is usually defined as a resource sacrificed to achieve a specific objective, usually expressed in monetary terms (Horngren et al, 2000). The purpose of cost accounting is to provide key cost information to managers for their decision making. It provides information for both management accounting and financial accounting. In general, the objective of cost accounting is to act as a decision-support system for management to improve performance. In manufacturing firms, Cost accounting provides information for achieving and sustaining a competitive advantage through manufacturing excellence which requires attention to all aspects of performance (Turney, 1989).

The evolution of cost accounting as a single branch of knowledge can be roughly divided into three eras-the first era from the first appearance until before the industrialization; the second from the industrialization to the twentieth century; and thereafter the third (Antonelli, V. et al., 2009). During the first era, the nomenclature cost accounting might not exist as a clear and well-recognized concept like it is today; the activity could be called by other names, or could be anonymous. The first faint appearance of cost accounting can be traced back to the fourteenth century (Rao, ME., 2012; Roger, W. & Holzer, HP., 1990). Italian accounting historian Melis, 1950 argued in his most important book, *Storia della ragioneria (Accounting History)*, that specific accounting instruments were unnecessary to a business so long as it remained in artisanal form. However, when it changed into an organized capitalist form, new techniques were then needed to account for production costs. Thereby, the development of cost accounting is prompted by the rise of industrial enterprises in the fourteenth and fifteenth centuries. Early examples include the wool business of Florence Medici family keeping four books of entry in 1431: (1) a stock book for recording purchases of wool and other materials; (2) a cash book; (3) a book of income and outflow; (4) a wage book (Kranowski, 1977). With the expansion of the scale of business, mainly in manufacturing activities that small enterprises started to produce trade items such as books, woolens, coins, and wine, an extension in cost accounting was required (Cunagin & Stancil, 1992). In England during the reign of Henry VII (1485-1509), many small workshop owners moved from cities to villages so as to run away from the guilds which regulated the pricing of crafts men's products.

Competition came along with this freedom to set prices, which marked the beginning of an intermediate system between the guilds and the factory and an emerging emphasis on cost control. Workers took raw material home then returned to the owner with finished products in exchange for payment. Another example of an attempt to calculate product cost (or *prix de revient* in French) is the Frenchman Christopher Plantin who operated a printing house in Flemish Antwerp in the mid-1500's, keeping separate books of all direct costs for each book edition printed, moreover, accounting for raw materials, work in process and finished goods in his ledger (Kranowski, N., 1977).

The industrialization beginning in the late eighteenth century in England as the Industrial Revolution and later spreading to other parts of the world, led to fundamental changes in agriculture, manufacture, transportation, economic policies and the social structure (Montagna, JA., 1981). The changes in the macro-environment gave rise to new developments in cost accounting as a result of the enormous impact on manufacturing methods and costs (Kranowski, N., 1977; Hume-Schwarz, JA., 2007). The only one work considering the issue of cost in an industrial setting published in Italy before the middle of the nineteenth century was by Moschetti (1610). Within the financial accounting system, Moschetti's work touched upon certain accounts which should be debited specific (direct) costs, for the purpose of determining the profit or loss from the related manufacturing process. It is not until two centuries later, when industrialization began to make an earnest appearance, that an assortment of cost accounting literature in Italy was produced. (Antonelli et al., 2009). Quite a number of French writers have also published a collection of cost accounting literature in French by the end of the nineteenth century.

In the late nineteenth century up till the early part of the twentieth century, engineering managers such as F. Taylor and Emerson devised new cost accounting procedures primarily to assess and control financial and physical efficiency of processes (Johnson & Kaplan, 1991). Because of the financial and physical efficiency mentioned, one may be tempted into concluding that it was meant to evaluate the overall profitability of the company. The whole idea was aimed at assessing the efficiency of processes. The cost systems which existed in 1910 provided information that was relevant to a wide range of decisions concerning efficiency and product differentiation. The systems were designed by engineers working in factories to assign costs to products and product lines. After 1910, these practices faded out probably because the collection of cost information was very difficult and expensive for a widening range of products thereby making it nearly impossible to

justify their benefits (Kaplan & Atkinson 1989). In their place, several other costing procedures came up and the twentieth century accountants adopted them to evaluate the cost of inventories for financial reports. However, while this kind of cost information was reliable for evaluating cost of inventories and financial reporting, it was irrelevant and even misleading for decision making needs, particularly for strategic product decisions. An economist, Maurice Clark, in his book “Studies in the Economics of Overhead Costs”, which he published in 1923, discussed fixed and variable costs; joint, sunk, differential and residual costs; short and long run fluctuations; and a number of other issues from the economist’s point of view. This book which most researchers and historians consider as a major contribution to cost accounting literature in the 1920s also advocated that different costs should be used for different purposes.

As Lanen et al., 2011 stated cost accounting continues to experience dramatic changes. Developments in information technology (IT) have nearly eliminated manual bookkeeping. Emphasis on cost control is increasing in banks, hospitals, manufacturing industries (from computers to automobiles), airlines, school districts, and many other organizations that have traditionally not focused on it. Cost accounting has become a necessity in virtually every organization, including fast-food outlets, professional organizations, and government agencies.

Cost accounting information system designed to provide valuable information is useful for the management of the company to assist them in the exercise of its various functions of planning, control and decision-making where management needs cost information- accurate, fast and reliable. The system of cost information is an important source in many administrative decisions, such as pricing decisions, determination of the optimal mix of products, and measurement of the cost of operations within the company, eventually evaluation of the results.(Alahdal et al, 2016). Cost accountants must work with the users (or customers) of cost accounting information to provide the best possible information for managerial purposes (Lanen et al, 2011). In the preparation of the financial information the role of cost accountant is invaluable in guiding and recommending the alternative courses of action.

Even though method of costing differs from industry to industry and it depends on the nature and type of the business, it is advisable to design effective costing systems to manage and control costs of the organization efficiently.

Therefore, in this research the cost accounting practice of Des general trading PLC is examined. The findings of the study can be specifically informative for policy makers intent on developing cost accounting skills among Ethiopian manufacturing firms and to give consideration about national cost accounting standards. It will also promote interest among Ethiopian researchers as well as other researchers to make the manufacturing sector a focus of interest in cost accounting research.

## **1.2. Background of the company**

DES General Trading Plc. is a private company in Ethiopia engaged in the manufacturing of melamine products (plates, bowls, serving try, cup), steel wool (wools commonly used to clean steel products like cooking pots), different aluminum utensils (cooking pots, ladle, wash base) and PVC & PPR ( PVC & PPR Pipes in Different Sizes) . The Company has a significant role in employment opportunity and also saving foreign currency by replacing products that was imported to Ethiopia from abroad. The company is in the process of diversifying its scope of business from import and manufacturing to export and service sectors. DES has been established in 1997 under trade registration no. of MT/AA/2/0006395/2004 issued by Ministry of Trade and Industry, Government of Ethiopia. The company also imports PVC flooring, PVC artificial leather, PVC Transparent sheets and PE Tarpaulin sheet.

The company has exclusive patent right for Hagere steel wool & DES Aluminum utensils and DES melamine Plates.

The company's Suppliers are internationally renowned companies from Europe, Asia & Far East countries. To mention few: Wellmark co. Ltd., FORMUSA Int'l FLC, Thai Plastic Partner, and Seascop Exports. The company is supported by Suppliers from across the globe for various raw materials and finished products. It has also received Letters of appreciation from Korea Ministry of Trade and Industry for its high volume imports and paramount business relationships.

DES is an expanding company which is in the process of diversifying its scope of business along the manufacturing sector focused on import substitution in response to the country's economic development agenda. Currently, it has already started production of PP MAT by establishing PP Mat factory.

### **1.3. Statement of the Problem**

Managers require information which is relevant, accurate and readily available to formulate and operationalize functional strategies and to make decisions on product costing and preparation of financial reports. Cost accounting includes those parts of both financial and management accounting that collect and analyze cost information. It provides the product cost data required for special reports to management and for inventory costing in the financial statements. Production costs include all costs incurred in the manufacturing company from the receipt of the raw materials and supply of labor and services until production is completed and the finished product is packed with the primary packing materials (Prasad, 1981).

The drive for this study is, even if cost accounting has manifold advantages, such as the above listed benefits for organizations, based on the preliminary study performed during 2018 by the researcher the company under this study has a problem to entertain such benefits from its costing system

Another drive of the thesis is as Drury and Tayles (2005) state that over the three decades, most of the research focused on cost system design has concentrated on studying ABC systems. Previous studies have assumed that cost systems consist of two alternatives, either traditional or ABC systems. On the other hand, researchers in developing countries, assert that there is a lack of knowledge concerning the current state of management accounting practice in developing countries (Joshi, 2001).

As per the knowledge of the researcher & reviewed literature, there have been a number of studies relating to cost accounting in the developed countries and very few in the developing countries. But most of the existing research literature (e.g. Tewodros, 2009, Mintesinot, 2013 and Yohannes, 2018 have done similar research in different sector) on accounting in Ethiopia manufacturing companies mainly focused on financial accounting, financial management, information technology adoption and credit accessibility for manufacturing companies in contrary limited emphasis given to cost accounting and its practice.

Therefore given the significant economic importance of Des general Trading PLC and the gap in the literature, the researcher believed that studying cost accounting practice studies similar to the developed countries will be useful to encourage the development of improved cost accounting practices. Based on this information the researcher had been initiated to assess and examine the company's cost accounting system for the purpose of identifying the causes

of the company's managerial problem and proposing the possible solution of overcoming such causes.

#### **1.4. Research question**

This study has a general research question of assessing "How cost accounting Information is developed and utilized by Des General Trading". The specific research questions include the following:

1. What is the current cost accounting practice adopted in the company?
2. To what extent management of the company involve cost accounting information in their decision making process?
3. Are the company's cost accounting information prepared help managers to be effective in their decision making?

#### **1.5. Objective of the study**

##### **1.5.1. General Objective**

The general objective of this study is to assess and examine the cost accounting practice utilized by the company under study to identify the real causes of why the main research problem is occurring and existing in the company; and finding possible solution to overcome the identified real causes.

##### **1.5.2. Specific objectives**

The student research has planned some specific activities to be performed to answer (find the solution ) of each specific questions to find out the point where the real causes of the main problem are located as specific objective of the study; and will be started as follows:

- a) To assess the current status of the current cost accounting practice of the company?
- b) To identify the extent to which the company involve cost accounting information in decision making?
- c) To evaluate whether the company's cost accounting information prepared help managers to be effective in their decision making?

## **1.6. Significance of the Study**

A research in the area of the cost accounting practice of manufacturing companies is relevant for several reasons. First, since business activities, being dynamic, require decisions by management almost on a daily basis. The study will be beneficial to the management of the company to understand the cost behavior and will be able to make the right decision in the sphere of planning and managing the costs at different levels of activity for alternative courses of action. Without cost information, management may not be able to respond to the demands for on-the-spot decisions which today's dynamic business situations require. The finding of the study will try to provide an insight about the overall image of the costing system; it suggests some possible recommendations for further betterment of the system which may help the organization in enhancing its costing practice. Subsequently the attainment of organizational goals will be greatly improved.

In addition, the benefit of sharing information among researchers is another reason for the study. Thus, the information provided in the study will be useful to researchers who might want to undertake further research into the area of cost accounting practice.

## **1.7. Scope of the Study**

The study would cover as much as possible all cost accounting practice which is focused on Des General Trading PLC. This research paper is specifically designed to assess the cost accounting system of the company. Due to limitation of time and resources, the student researcher has intended to limit the scope of the study to be based on sample and the sample may not be representative of the total population.

# CHAPTER TWO

## 2. LITERATURE REVIEW

### 2.1. Introduction

This chapter seeks to review literature of existing bodies of literature on the subject of the research. The chapter analyzed theoretical and empirical evidence findings, showed the research gap and finally presents summary of literature relevant to the study.

### 2.2. Nature of Cost Accounting

#### 2.2.1. Definition of Cost:

'Cost' is not easily defined. The following quotations highlight the meaning of cost: Alchian (1972) states that 'in economics, the cost of an event is the highest valued opportunity necessary forsaken. The usefulness of the concept is a logical implication of choice among available options. Only if no alternative were possible or if amounts of all resources were available beyond everyone's desires, so that all goods were free would the concept of cost and choice be irrelevant.' For accounting, Sprouse and Monnitz (1962) define cost as 'an exchange price, a forgoing, a sacrifice made to secure benefits. Kohler (A Dictionary for Accountants, p.139) defines cost a "an expenditure or outlay of cash, other property, capital stock, or services or the incurring of a liability therefore, identified with goods or services purchased or with any loss incurred, and measured in terms of the amount of cash paid or payable or the market value of other property, capital stock, or services given in exchange."

#### 2.2.2. Cost accounting

**Cost accounting** is defined in such a wide variety of ways by different authors as follows:

- Cost accounting addresses the informational demands of both financial and management accounting by providing product cost information to external parties (stockholders, creditors, and various regulatory bodies) for investment and credit decisions and for reporting purposes, and internal managers for planning, controlling, decision making, and evaluating performance. (Kinney et al.,2011)

- Cost accounting attempts to satisfy costing objectives for both financial and management accounting. When cost accounting is used to comply with a financial accounting objective, it measures and assigns costs in accordance with GAAP. When used for internal purposes, cost accounting provides cost information about products, customers, services, projects, activities, processes, and other details that may be of interest to management. The cost information provided plays an important support role for planning, controlling, and decision making. This information need not, and often should not, follow GAAP (Hansen & Mowen, 2006)
- Cost accounting is a conscious and rational procedure by accountants for accumulating cost and relating such costs to specific products or departments for effective management action. Such costs are used in balance sheets and income statements for the purposes of stock valuation and income determination (Layne, 1984).
- Cost accounting as an information processing system includes a series of ordered and logically connected activities. The key purpose of these activities consists in translating data on the use of resources involved in the company's operations into information which reflects the costs of specified reference objects (Nowak and Wierzbinski, 2010).
- Cost Accounting (or costing) can be defined as the process of collecting, classifying, assigning and analyzing the costs associated with the activity of an organization (Blocher, 2005).
- Cost accounting is the process of measuring, analyzing, and reporting financial and non-financial information related to the costs of acquiring or using resources in an organization. For example, calculating the cost of a product is a cost accounting function that meets both the financial accountant's inventory-valuation needs and the management accountant's decision-making needs (such as deciding how to price products and choosing which products to promote). However, today most accounting professionals take the perspective that cost information is part of the management accounting information collected to make management decisions. Thus, the distinction between management accounting and cost accounting is not so clear-cut. (Horngren et al,2018).

Both the above definitions defined cost accounting as providing relevant financial and non-financial information for both management and financial accounting. Therefore, this study

has adopted the Horngren et al., (2018) definition which suggests that the cost accounting task is to provide information for both Management and financial accounting.

### **2.3. Advantage of cost accounting**

Coe (1981) states that the allocation or assignment of costs and expenses to products or services results in cost data available for:

1. Pricing annual or periodic physical inventories.
2. Maintenance of reasonably accurate monthly or periodic dollar inventory total for for financial statement purposes without the taking and pricing of physical inventories more often than perhaps one year.
3. Aid in setting selling price.
4. Recovery of costs from customer under contract providing for reimbursement of actual costs or escalation based on specified cost data.
5. Make-or-buy studies.
6. Profit planning
7. Analysis of operations and operating deficiencies.
8. Control of costs and expenses.
9. Capital budgeting decisions.
10. Numerous other managerial decisions.

### **2.4. Elements of manufacturing cost**

Three terms commonly used when describing manufacturing costs are direct materials costs, direct manufacturing labor costs, and indirect manufacturing costs. These terms build on the direct versus indirect cost distinction of manufacturing costs.

1. **Direct materials costs** are the acquisition costs of all materials that eventually become part of the cost object (work in process and then finished goods) and can be traced to the cost object in an economically feasible way. The costs of direct materials include not only the cost of the materials themselves, but the freight-in (inward delivery) charges, sales taxes, and customs duties that must be paid to acquire them (Srikant et al., 2018).

2. **Direct manufacturing labor costs** include the compensation of all manufacturing labor that can be traced to the cost object (work in process and then finished goods) in an economically feasible way (Srikant et al., 2018)
3. **Indirect manufacturing costs** are all manufacturing costs that are related to the cost object (work in process and then finished goods), but cannot be traced to that cost object in an economically feasible way. This cost category is also referred to as manufacturing overhead costs or factory overhead costs (Srikant et al., 2018)

## **2.5. Treatment of Packing Cost**

Packing materials is of two types - primary and secondary. Primary packing materials are essential to put the goods in a salable condition like ink in a bottle, jam in a jar, etc. Secondary packing materials are required for delivery/transportation like crates, etc., some of the secondary packing materials are returnable and reusable.

The cost of primary containers should be charged off as a production overhead and included in production cost. On the other hand, the cost of secondary containers should charge as a selling and distribution overhead. The cost of reusable container should be charged when they could not be used any more due to damage, wear and tear, etc.

In some cases, the primary packing materials may be made decorative with a view to promote sales, and in such a case a part of the primary packing materials should be apportioned as a selling cost.

## **2.6. Costing system**

### **2.6.1. Job costing system.**

In this system, the cost object is a unit or multiple units of a distinct product or service called a job. Each job generally uses different amounts of resources. Each job generally uses different amounts of resources. Job costing is suitable when it is required to obtain the cost of a Job or a specific order or a batch of finished products (Prasad, 1981).

### **2.6.2. Process costing system.**

In this system, the cost object is masses of identical or similar units of a product or service. The focus of a process cost system is the cost center to which costs are assigned. It is usually a department, but it could be a process or an operation. Costs accumulated by a cost center

are divided by the number of units produced in that cost center to compute the cost per unit. The primary objectives, like that of the job order cost system, are to compute the unit cost of the products completed and the cost to be assigned to the ending work in process inventory (Vanderbeck,2010).

### **2.6.3. Building Blocks of Costing System**

Cost assignment is a general term for assigning costs, whether direct or indirect, to a cost object. Cost tracing is a specific term for assigning direct costs; cost allocation refers to assigning indirect costs.

*1. Cost pool.* A cost pool is a grouping of individual indirect cost items. Cost pools can range from broad (such as all manufacturing-plant costs) to narrow (such as the costs of operating metal-cutting machines). Cost pools are often organized in conjunction with cost-allocation bases.

*2. Cost-allocation base.* A cost-allocation base (e.g., number of machine-hours or number of labor-hours) is a systematic way to link an indirect cost or group of indirect costs to cost objects.

## **2.7. Techniques of costing**

The following techniques of costing are used by the management for controlling costs and making managerial decisions:

### **2.7.1. Traditional Costing**

#### a) Historical (or Conventional) Costing

It refers to the determination of costs after they have been actually incurred. It means that cost of a product can be calculated only after its production. This system is useful only for determining costs, but not useful for exercising any control over costs. It can serve as guidance for future production only when conditions continue to be the same in future.

#### b) Standard Costing

It refers to the preparation of standard costs and applying them to measure the variations from standard costs and analyzing the variations with a view to maintain maximum efficiency in production. What is done in this case is that costs of each article are determined before-hand under current and anticipated conditions, but sometimes they are determined before-hand

under normal or ideal conditions. Then actual costs are compared with the predetermined costs and deviations known as variances are noted down. Thereafter, the reasons for the variances are ascertained and necessary steps are taken to prevent their recurrence.

Standard costing is one of the most known and widely used product costing systems. Standard costing was developed for the needs of a traditional production environment which differ significantly from the needs of a modern days' production environment. This costing system suits best an organization whose activities consists of a series of common or repetitive operations and the input required to produce each unit of output can be specified. Standard costing is also suitable for organizations that produce many different products with a series of common operations. Standard costing is a widely used accounting system because it can create information for a lot of purposes: decision-making purposes, providing challenging targets to achieve, assists on setting budgets, acts as a control device by highlighting unwanted activities and simplifies the task of tracing costs to products for profit measurement and inventory valuation purposes. (Drury 2004)

#### c) Marginal Costing

The marginal costing concept is based on the principle that each cost unit should be charged only with those costs which it exclusively caused to be incurred, this method is also known as direct costing or variable costing (Layne, 1984).It refers to the ascertainment of marginal costs by differentiating between fixed costs and variable costs and the effect on profit of the changes in volume or type of output. In this case, only the variable costs are charged to products or operations while fixed costs are charged to profit and loss account of the period in which they arise.

#### d) Absorption Costing

Absorption costing is based on the premise that the normal costs of running a firm should be charged to the individual cost units in order to ascertain the total cost of each unit. By such an exercise, the cost units absorb the total costs. The product units are thus charged not only with direct cost, but also with a fair share of the overhead cost (Layne, 1984). According to Kinney and Rail-born, 2011, absorption costing treats the costs of all manufacturing components (direct material, direct labor, variable overhead and fixed overhead) as inventoriable, or product, costs in accordance with GAAP. Absorption costing is also known as full costing. Under absorption costing, costs incurred in the non manufacturing areas of the organization are considered period costs and are expensed in a manner that properly matches them with revenues. In addition, absorption costing presents expenses on an income statement according to their functional classifications. A functional classification is a group

of costs that were all incurred for the same principal purpose. Functional classifications generally include cost of goods sold, selling expense, and administrative expense.

### **2.7.2. Activity-based costing (ABC)**

It is a cost accounting system that focuses on an organization's activities and collects costs on the basis of the underlying nature and extent of those activities. Multiple predetermined overhead rates are then calculated using the various cost drivers of organizational activities. ABC focuses on attaching costs to products and services based on the activities conducted to produce, perform, distribute, and support those products and services. The three fundamental components of activity-based costing are

- recognizing that costs are incurred at different organizational levels,
- accumulating costs into related cost pools, and
- using multiple cost drivers to assign costs to products and services.(Michael & Cecily, 2011)

## **2.8. Role of cost accountants**

Cost accountants collect, assimilate, collate and analyze all financial information related to an organization. Their main role is to ensure that managerial decisions are within cost prescriptions. Cost accountants in today's highly competitive and dynamic business environment need to understand the various functions or links such as customer service, marketing, distribution, etc., in the value chain of a business. This understanding of the various links in the value chain of a business is particularly important when the business concerned is involved in international trade. This has resulted in cost accountants moving away from traditional manufacturing cost approaches to more inclusive approaches. This move towards more inclusive approaches has resulted in cost accountants factoring cost of value chain activities such as engineering, sales, distribution, service, etc., into product costing. In this context an individual who is well versed in the numerous definitions relating to costs and comprehends the shifting definitions of costs ranging from short run to long run can be extremely invaluable in identifying information which is critical for decision making. The importance of management and costs accounting has grown exponentially in the recent past. The reason for this can be attributed to a number of factors such as increased competition both locally and internationally which has been exacerbated by globalization, growing input costs on account of changing macroeconomic conditions, declining profit

margins, etc. In order to mitigate these recent challenges, companies in the developing world have started implementing management and costs accounting practices which are widely used by companies in the developed world (Kariyawasam, 2018).

## **2.9. Activity of a firm**

### **2.9.1. Definition of a firm**

According to Layne 1984 a 'firm' is made up of human beings who are organized towards economic objectives. A firm acquires scarce resources from the environment, and utilizes such resources for production. By 'production' is meant the transformation of inputs into an output (or outputs) of a distinct, different form; some value should be attached to this output (or outputs) by a particular society. For production to take place there must also be availability of resources which include raw materials and labor; finance and capital goods.

### **2.9.2. Stage of production**

The production or conversion process can be viewed in three stages:

- 1) work not started (raw materials),
- 2) work in process, and
- 3) finished work.

Costs are associated with each processing stage. In the first stage of processing, the cost incurred reflects the prices paid for raw materials and/or supplies. As work progresses through the second stage, accrual-based accounting requires that labor and overhead costs related to the conversion of raw materials or supplies be accumulated and attached to the goods. The total costs incurred in stages 1 and 2 equal the total production cost of finished goods in stage 3.

A manufacturer must account for raw materials, work in process, and finished goods to maintain control over the production process. An accrual accounting system is essential for such organizations so that the total production costs can be accumulated as the goods flow through the manufacturing process. (Jesse, et al., 2011)

### **2.9.3. Non Departmentalized Factory**

When the factory is operated as a single department producing a single product in a continuous output, the process cost system is relatively simple. The costs of operating the

factory are summarized at the end of each accounting period. Then the total costs incurred are divided by the quantity of units produced to calculate the cost of each unit manufactured during the period (Vanderbeck, 2010)

#### **2.9.4. Departmentalized Factory**

Generally, a company has several production and service departments. Products accumulate costs as they pass through each successive production department. Departments record costs according to the following procedure:

- 1) the costs of materials, labor, and factory overhead directly identifiable with a department, are charged to the department;
- 2) the costs of the factory service departments, such as maintenance and human resources, are allocated to the production departments; and
- 3) the costs added by prior production departments are carried over to successive production departments. The unit cost within a department is calculated by dividing the total costs by the number of units produced during the period.

#### **2.9.5. Work process Inventory**

If there is no work in process at the end of an accounting period, calculating the unit cost using a process cost system is a simple procedure: merely divide the total production cost incurred for the period by the number of units produced. Departments, however, often have ending work in process.

The calculation of the degree of completion of unfinished work in process presents one of the biggest challenges in process costing.

Normally, a factory will have units in varying stages of completion such as:

1. Units started in a prior period and completed during the current period.
2. Units started and finished during the current period.
3. Units started during the current period but not finished by the end of the period.

Because some materials, labor, and overhead may have been applied to each of the unfinished units, such charges cannot be ignored in computing the unit costs. Consideration must be given not only to the number of items finished during the period but also the units in process at the beginning and at the end of the period. The primary task is allocating total cost between

1. units finished during the period and

## 2. units still in process at the end

To make an accurate measurement, the stage of completion of the units still in process must be considered. Stage of completion represents the fraction or percentage of materials, labor, and overhead costs of a completed unit that has been applied to goods that have not been completed by the end of the month. The department manager estimates the stage of completion. The possibility of error is minimized because the manager usually has the expertise to make reliable estimates. In the event that the product is of a highly technical nature, the engineering staff can assist in determining the percentage of completion.

At the end of the month, the department manager submits a production report showing the following:

1. Number of units in the beginning work in process.
2. Number of units completed.
3. Number of units in the ending work in process and their estimated stage of completion.

### **2.9.6. Cost driver**

A **cost driver** is a variable, such as the level of activity or volume that causally affects costs over a given time span. For direct costs there is a readily measured cause and effect relationship between the change in either the level of activity or volume (kilograms of DM used) and a change in the total costs. For other production costs, such as the cost of plant security, which benefits all distinct cost objects, the measure of benefit may be the computer space required to store surveillance records of distinct areas in the plant. The larger the storage space, the higher the assumed benefit for the distinct cost object.

The cost driver of a variable cost is the level of activity or volume whose change causes proportionate changes in the variable cost. For example, the number of vehicles assembled is the cost driver of the total cost of steering wheels. If setup workers are paid an hourly wage, the number of setup hours is the cost driver of total (variable) setup costs. Costs that are fixed in the short run have no cost driver in the short run but may have a cost driver in the long run. Costing systems that identify the cost of each activity such as testing, design, or setup are called activity-based costing systems.

## 2.10. Defining and accounting spoilage, rework and scrap

AS (Horngren et al 2016) explained; the terms *spoilage*, *rework*, and *scrap* are not interchangeable. For a financial accountant, the costs must be classified differently because under ASPE/IFRS different transactions give rise to each type of cost. Some amount of spoilage, rework, or scrap is an inherent part of many production processes.

Spoilage refers to output that fails to attain either a specified performance level or standard of composition.

Rework is the conversion of production rejects into reusable products of the same or lower quality.

Scrap is a residual material that results from manufacturing a product. Scrap has minimal total sales value compared with the total sales value of the product. In some situations the firm may have to pay to have the scrap removed. In this case, it is usually referred to as waste or refuse.

To minimize cost, managers want to determine the costs of spoilage and distinguish between the costs of normal and abnormal spoilage.

Normal spoilage arises under efficient operating conditions as a result of predictable rates of failure in a production process. Normal spoilage may be a locked-in cost, which managers accept when they invest in equipment with a specific failure rate. These costs are not considered controllable or avoidable. IFRS permits the costs of normal spoilage to be included in the costs of goods manufactured (COGM). The cost is transferred to cost of goods sold when the good units are sold. The normal spoilage rate should be computed using the total good units completed as the base, not the total actual units started (into production/process), because total units started also includes any *abnormal* spoilage in addition to normal spoilage.

Abnormal spoilage is spoilage that is unexpected under efficient operating conditions but is regarded as controllable and avoidable. The cost of abnormal spoilage can extend well beyond the immediate cost of the offending product. Abnormal spoilage costs are written off as losses of the accounting period in which detection of the spoiled units occurs. For the most informative internal feedback, the Loss from Abnormal Spoilage account should appear in a detailed statement of comprehensive income as a separate line item and not be buried as an indistinguishable part of the COGM.

An inspection point is the stage of the production process at which products are examined to determine whether they are acceptable or spoiled. In process costing, spoilage is typically assumed to occur immediately before the point at which inspection takes place.

## **2.11. Empirical Studies**

This topic of the research covers topics about the findings of different researchers about cost accounting practices in different countries.

Kariyawasam(2018) studied the cost management and account management practices of public quoted manufacturing companies in Sri Lanka. Research method used in this study was an applied research method, whilst the research strategy employed was a survey research strategy. Sample for the study consisted of 70 public quoted manufacturing companies in Sri Lanka. Findings from the study revealed that the main costing method used by public quoted manufacturing companies in Sri Lanka is activity based costing, followed by process costing and job costing. Findings from the study also revealed that cost information is mainly used by public quoted manufacturing companies for pricing related decisions, followed by customer profitability related decisions, and performance measurement; that the increasing interest and use of cost accounting in these companies is on account of the decline in firm profitability, increasing cost, intense competition, and high customer and supplier bargaining power; and that these manufacturing companies give high importance to traditional management accounting practices such as planning and control, budgeting, target costing, and cost-volume-profit analysis.

Novak et.al (2017) conducted study to analyze overhead cost behavior on decision making approach. The study reveals that cost management is one of the most significant issues in company performance and company financial management which any enterprise has to solve as in the periods of declines of sales revenues, as well as during their growth. In this study they designed and tested several regression models that could be suitable for cost behavior prediction and subsequent decision-making based on these predictions. They used multiple linear regression models with a point estimate and with interval estimate of the model parameters. Comparison of regression models of cost behavior and their reliability was carried out due to the quality of the data collected for the case of basic and adjusted data. The overheads were divided into several groups of relevant costs and their dependences were examined on different factors other than only the production volume using the correlation

matrix. From the results of the transformed model they believe that asymmetric cost behavior is affected by asymmetric behavior of the chosen factors. As the final one was intended, the model representing the change in costs in time shifting about one-month period. This model can be used for examining costs in time shift by a short period (e.g., months) and thus it is possible to prove cost asymmetric behavior called "sticky costs". They used the model adjusted in accordance with Anderson et al. (2003) and they kept the model clearly transformed and assembled so that there remained only those variables that had a statistically significant effect on the dependent variable. The limitations of these models were also defined. Finally, graphical analyses of deviations were performed to find similarities in cost through cost centers and through the examined periods.

Lawal (2017) conducted study on effect of cost control and cost reductions techniques in organizational performance. In any organization, the major objective is to maximize profit, but the main constraints facing them are the rise in cost of operation. Due to this, the cost of production increases and could lead to certain cost control and cost reduction which make it complex for many organizations to operate as well organized cost limit of knowledge.

The study aim is to critically examine and evaluate the application of cost control and cost reduction in organizational performance and also to review the budget as an effective tool of cost control and cost reduction. A descriptive survey research was adopted. A total number of 50 questionnaires were administered and used for the study. The analysis of data collected was undertaken by applying appropriate statistical tools. Regression analysis was used to test the hypothesis with the use of SPSS. Based on the findings, it was evident that cost control has a positive impact on organizational performance and also the style of management has a positive impact on organizational performance,

Makomane and Michael (2016) conducted a study to examine the challenges and potentials of adopting cost accounting practices in African traditional healing. Although cost accounting is more prevalent in the private sector and the public sector, it is unpopular in African traditional healing. This study examined the necessity and benefits of adopting cost accounting practices to improve product and service pricing in African traditional healing. An exploratory case study that utilizes focus group interviews of traditional healers at the Makhuduthamaga Local Municipality in South Africa was conducted. Findings revealed the need to improve decision-making in traditional healing through the integration of cost accounting principles for appropriate costing of products and services through the provision

of accurate cost accounting information. The study recommended the development of a unique cost accounting model for use by traditional healers in South Africa.

Alahdal et al (2016), conducted a study aimed to explain the role of cost accounting systems in the process of pricing decision-making in Yemeni industrial companies of Taiz City. The researcher has used both descriptive and analytical methods which suit the nature of the present study which is mostly based on field work and the theoretical underpinnings. A group of previous studies related to the subject of the study have been utilized in the construction of study tools (questionnaires) which have been distributed in the industrial companies in the Taiz city, Yemen. The study targeted accounting costs, accountants, auditors and managers of financial department's in industrial companies. Data analysis through the Statistical Package for Social Sciences (SPSS) was the use of scientific statistical methods, frequencies and percentages, SMA, Standard deviation, t-test, Cronbach's alpha test. The results indicated that the cost of the accounting system applied in industrial companies provides quality accounting information; there is an impact of this information on the pricing decision-making; there are areas in which pricing decisions much depend on the information provided by the cost accounting systems. This study can contribute to the literature by providing an analysis of the role of cost information in pricing decisions within industrial companies in the Taiz city, Yemen.

Ghanshyam P. S. and RadheShyam P.(2016) was conducted a study on cost management practice on and firm's performance in Nepal Oil Corporation. This study found the relationship between cost management practices and firm's performance in Nepal Oil Corporation using data from 2004 to 2014. The study relied on secondary data extracted from the audited financial statement of the Nepal Oil Corporation. Independent variables include direct material cost, direct labour cost, selling and distribution overhead cost and office and administrative overhead cost while profitability (Return on assets) was taken as dependent variable representing the firm's performance. Correlation and regression analyses were employed to test the hypothesized relationships between the cost management and profitability. The results found a strong support for hypothesized with the direct relationships between cost management and performance measure.

The result indicated that a direct significant relationship between cost management practices and firm's profitability. It is therefore recommended that if the profit maximization and

wealth creation objective is to achieve, a cost reduction strategy with emphasis on selling and distribution overhead cost and office and administrative overhead cost should be embarked

Rao et al (2015) carried out an empirical study to explore cost and management accounting practices utilized by manufacturing companies operating in AP, India. The sample of the study consists of 61 companies, containing both small and medium-sized enterprises, and large companies. The major findings of the study are as follows: the most widely used product costing method is job costing; the complexity in production poses as the highest ranking difficulty in product costing; the most widely used three overhead allocation bases are prime costs, units produced, and direct labor cost; pricing decisions is the most important area where costing information is used; overall mean of the ratio of overhead to total cost is 34.15 percent for all industries; and the most important three management accounting practices are budgeting, planning and control, and cost-volume-profit analysis. Furthermore, decreasing profitability, increasing costs and competition, and economic crises are the factors, which increase the perceived importance of cost accounting. The findings indicate that companies perceive traditional management accounting tools still important. However, new management accounting practices such as strategic planning, and profitability analysis are perceived less important than traditional ones. Therefore, companies need to improve themselves in this aspect.

Novak P., and Popesko B. (2014), conducted a study which focused to the variability of costs, cost behavior and discusses the issues of sticky costs. The main goal of the paper was to analyze the issue of the author's project targeted at the topic of cost behavior and its projection to the costing systems and confront it with the current state of knowledge in the field. Special attention is paid to the phenomenon of the sticky cost. It highlighted the importance of this topic at this time of adverse economic developments.

The first part of the paper analyzed the general historical changes in the enterprise's cost structures. There is also analyzed the cost behavior and variability of costs due to the standard view of company performance. Attention is also paid to current view on the issue of costing systems and costing methods.

In the second part there are presented findings of completed surveys as proof of the relevance of this issue. From the researches it was found that in recent years there has been a rise in the share of indirect costs up to 40% (till 2009), while almost half of the companies shows steady

growth in the portion of these costs. Discussion then followed of this section, in which special attention is paid to area of sticky costs. The author further provided additional research hypotheses and research questions which underlines the need for further exploration of this issue.

Sevim and Korkmaz(2014) in their study of cost management practice in the hospitality Industry in the case of the Turkish hospitality industry by taking into consideration that hospitality organizations amongst the key elements of the hospitality industry. Nowadays hospitality organizations should manage financial resources at optimum level to survive and for reaching their goals. From this point of view, it is clear that managers need cost management tools to make the right decisions. The research findings show that less than half of the respondent hotels utilizing contemporary cost management systems. Amongst these hotels utilizing level of the systems are considerably low. Furthermore, activity-based budgeting, life cycle costing, back flush costing and transfer pricing are not utilized by any respondent hotel companies.

The respondents of the study that utilizing contemporary cost management systems thought that by using these systems their hotels benefit from several issues. These issues are; profitability, productivity, sustainability, budgeting, calculating goods/services cost accurately, pricing, evaluating process and activities, performance evaluation and competitiveness. The findings of this study have several theoretical and practical implications. Hotel enterprises could utilize cost management systems in order to survive and to reach their goals.

Salawu et al., (2012) did a survey of Activity Based Costing Adoption Among Manufacturing Companies in Nigeria. The study reveals that inability of the traditional cost systems to provide relevant cost was the most highly ranked reason in their decision to adopt ABC. Traditional methods of allocating overhead were therefore believed to be deficient in terms of improving global competitiveness. Also, 60% of the respondents have adopted ABC due to increased ranges of products, competition and increased overhead. Familiarity with and adoption of ABC was found to be across the manufacturing, more than half of the sample are familiar with it. The 40% of respondents who have not adopted ABC cited the cost and complexity involved with implementation as the main reason in non- adoption. However, cost of implementing ABC was enormous which hinder the small scale manufacturing from adopting it. This result may reflect the fact that larger firms are more likely to have the diverse mix of products or services that makes the use of ABC advantages. Consequently, the

study recommends that the companies who have not adopted ABC because of its high cost of implementation should endeavor to consider its adoption because in the long run the benefits derive from it will outweigh its cost. It helps to identify inefficient products, departments and activities and helps to allocate more resources on profitable products. In conclusion, the senior management should also give their utmost support to the implementation and success of ABC.

Andersch et al (2011) have conducted a survey about the costing system in North America hardwood dimension and component manufacturers to understand the product costing practices of the companies. In this study, companies when bidding for jobs, need to be able to price products competitively while also assuring that the necessary profitability can be achieved. These goals, competitive pricing and profitability, cannot be reliably achieved unless industry participants possess a full understanding of their company's cost structure. Competitors blame companies without detailed knowledge of their company's cost structure for submitting bids that are priced unreasonably low, thereby making it harder to achieve the necessary profitability. To better understand the product costing practices of North American hardwood dimension and component manufacturers, a mail survey was conducted. A total of 495 companies were contacted and 74 valid responses were obtained for a response rate of 16%. Most respondents gather primarily financial information from their current costing system. Respondents use the financial information to create financial reports, tax reports, inventory valuation, and to calculate the cost of their product. A majority of respondents (74%) reported using a traditional cost accounting system, 13% an activity-based cost accounting system, 4% a lean accounting system, and 9% of respondents indicated using a proprietary system.

Shil et al (2010) conducted a survey on a cost and management accounting practice(CMAP) in Bangladeshi. The cost and management accounting practice is not a mandatory requirement rather fully voluntary. Firms will implement CMAP for their own sake. Because, it will ensure reasons of being existed in terms of ensuring value for money, quality, maximum resource utilization, efficiency, productivity and equity. Consumers will be benefited through spending every penny against some values. But in Bangladesh, such requirements are never felt due to voluntary requirement in nature. In a country where massive non-compliance is customary, a mandated requirement of cost audit may improve the situation. And when it becomes a common place in firms, then requirements will not be an important issue due to

the rule of market. The survey concluded that the current practice is not satisfactory in any regard.

Bangladesh witnessed a mushroom growth in manufacturing sector in last decade that necessitates the application of CMAP for a strong base. Competition in the market will automatically set the benchmark; still market regulators should take the issue under consideration.

In Bangladesh, companies still follow traditional management accounting techniques leaving modern management accounting techniques like just in time (JIT), material resource planning (MRP), enterprise resource planning (ERP), total quality management (TQM), activity based management (ABM), and ABC etc., researchers, to their surprise, come across to an observation that some practitioners even have not heard some of the modern techniques and some others heard but failed to explain it satisfactorily. There are several reasons behind such ignorance. Firstly, many locally originated firms keeping manual records that represent that the decision making process of such organization is structured and requirements for information are minimal making their CMAP traditional. Secondly, the financial officers or chief accountant or top managers are quite traditional in every respect and hence they are quite backdated in some cases. Sometimes they fear of changes due to lack of leadership traits. They do not adopt new technologies and techniques, as they feel happy with their old techniques. As the leadership was changing replacing traditional managers with dynamic professionals, the situation was gradually improving. They carry advanced techniques with them from their academic background, training, attachments and multinational environments. Another limitation that most of the respondents voted that in many offices the processes are not well defined and as a result there is no dedicated cost centre for a particular operation or the fixed cost and variable cost are not defined technically. Due to having lack of defined process, it becomes difficult in many cases to implement a costing model like ABC. That is why, in spite of being well aware of the ABC or such modern cost model, many companies could not implement it because it requires a change in information generation process, which is little complicated. Some firms cannot afford radical move from one system to another. Again, reluctance of using computerized system is very strong among traditional professionals that hinder the process of movement to a further extent. It needs a generation move to remove the problem to a greater extent. But the professionals and practitioners should be capable enough to accept the challenges any time. Otherwise, the development of

will be lingered further that will be of no good for the professionals and profession of cost and management accounting in Bangladesh.

Anand et al (2004) in their study of cost management practices in India studied the responses furnished by 53 CFOs in Indian corporations. The objective of their study was to capture the development in cost management practices such as accounting for overheads, applications of budgetary control and standard costing in corporate India. The survey questionnaire also aimed to verify any significant difference in management motivation for the implementation and use of standard costing as a control tool between activities based cost management (ABCM) user firms and firms using traditional costing systems. The study established that the firms are successful in capturing accurate cost and profit information from their ABC cost systems for value chain and supply chain analysis. The results suggest that the firms have better insight for benchmarking and budgeting with ABC cost system yet the consistency in their priority of budget goals is lacking unlike the firms who are using traditional costing systems.

## **2.12. Summary and literature gap**

The literature review has unfolded certain points in terms of the scope and application of cost accounting techniques. The major literature gaps are revealed as follows:

- Cost management is one of the most significant issues in company performance and company financial management.
- Cost control has a positive impact on organizational performance and also the style of management has a positive impact on organizational performance.
- Decision-making can be improved through the integration of cost accounting principles for appropriate costing of products and services through the provision of accurate cost accounting information.
- Cost reduction strategy should be embarked with emphasis on selling and distribution overhead cost and office and administrative overhead cost.
- Enterprises could utilize cost management systems in order to survive and to reach their goals.

- Organization goals such as competitive pricing and profitability cannot be reliably achieved unless industry participants possess a full understanding of their company's cost structure.
- Firms are successful in capturing accurate cost and profit information from their ABC cost systems for value chain and supply chain analysis.
- Most of the Activity Based Costing research was done in developed countries and very few in developing countries.
- The basic difference between ABC and traditional costing is that while traditional costing assumes that products consume sources during production, ABC assumes that sources are consumed by activities rather than products and those products consume the said activities.

The above Literature review highlights most of the studies so far conducted are mainly discussing that are related to the different elements and aspects of cost accounting systems. Some studies also covered cost systems and techniques and others are also related to cost accounting practices, but there are no in-depth specific study has been conducted covering substantial aspects on the cost accounting practices related to Ethiopian manufacturing companies on the best knowledge of the researcher. The scanning of literatures give an indication that there exists a gap in the existing study and a study is needed that include cost accounting system of Ethiopian manufacturing companies.

Addressing the research study questions, the present study conducted in Des general trading Plc. one of the big firms in household and plastic firms in Ethiopia is a modest attempt to this direction, which throws a light on the application of cost management accounting techniques of the manufacturing sector in Ethiopia.

## **CHAPTER THREE**

### **3. RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter outlines the methodology which the present study took. Outlined here are the research design, population and sample, data collection, and data analysis.

#### **3.2. Research Design**

A descriptive method is used to state the purpose of the study where accomplish through the data collected from secondary and primary source. After information was gathered through the employed methods, the clarification and analyzing will be done through both quantitatively and qualitatively. The data will be presented and analyzed by using different tools such as SPSS, tables and percentages.

#### **3.3. Population and sampling Technique**

##### **3.3.1. Population**

The study target population focused on 26 management and finance department employees of the company's head office located in Addis Ababa, Factory production head and store staffs heads of Alemgena and Mekele Factory as a population in the assessment of the practice of costing of the company.

##### **3.3.2. Sample**

Purposive sampling method is used to select respondents for the questionnaire and interview respectively. In purposive sampling, people or other units are chosen, as the name implies. For instance, we might choose people who we have decided are "typical" of a group or those who represent diverse perspectives on an issue (Leedy & Ormord, 2005).

### **3.4. Data Types and Sources**

#### **3.4.1. Data Types**

Data collection requires conducting certain procedure for further analysis. In this research, two main types of data will be used to gather information, namely; Primary and secondary data.

##### **Primary data**

These data are first time collected in solving specific problems under study. Primary data will be gathered using, questionnaires, interviews and observation for the purpose of the study.

##### **Secondary data**

These data are already in existence and have been collected previously for different purposes. Therefore, secondary data for this study will be gathered through organization documents, journals, pamphlets, books and other sources concerning Cost accounting practice.

#### **3.4.2. Data collection Method**

The data gathering methods will be interview with respective managers, questionnaire and observations.

##### **Interview**

This method of data collection is preferably used because it increases the precision of the data gathered. This is because the unstructured conversation usually makes the researcher and the respondent to be friendly and hence, willing to express their views on the research problem under study.

The top managers are selected for interview because, they are small in number and their position is important in describing the practice and problems of performance appraisal in the company. In addition to that they knew the strength, challenges, weaknesses and opportunities of the Company.

##### **Questionnaires**

These are structured questions prepared to as to be distributed to particular person in order to enable person to answer those questions which are found from questionnaires, and at the end those questionnaires will be collected by the researcher in order to analyze the data collected.

##### **Observation**

This method of data collection includes physical presence and full participation in the company activities. Through this instrument the researcher concentrated in observing the employees in performing their duties, the way they are working and how they practice the costing system.

### **3.5. Methods of Data Analysis**

The data collected is analyzed in different ways but in a coherent whole. Hence data collected via interview is presented in a narrative form and discussed in a narrative way qualitatively. The quantitative data collected via the questionnaires will be put in to SPSS and then using descriptive statistics frequency and percentages will be generated and analyzed.

### **3.6. Justification for the selection of the targeted respondents**

The focus of the research is on the professional employees and this was done to the administration of the study. Though not a strong stance, the respondents are selected because they can easily understand and give valid responses to the question provided, as compared to the illiterate. If the targeted respondents are illiterate which have not information and knowledge about the subject matter, the study will be forced to be conducted through interview which is time consuming and very difficult to achieve within the given short period of time. Hence, the student researcher has limited his attention on the professional respondents.

### **3.7. Reliability, Validity and Ethical Consideration**

#### **3.7.1. Reliability**

It is the trustworthiness of the measuring instrument that is used to conduct the study. The questionnaire will be drafted with a strong base from literature in order to be more up-to-date and relevant.

#### **3.7.2. Validity**

It refers to whether or not the research instrument measures what the researcher intends to measure. Attention will be given to show how the measurement covers the intended domain of the concept. To maintain the validity of the data, the student researcher will make sure that

correct answers are gathered and ensure that the analysis is summarized based on the factual data.

### **3.7.3. Ethical Consideration**

Both interview and questionnaire can be seen as intrusions into the life of the respondent. That is why the following ethical considerations will be considered when conducting the research.

- Interviewees will be given an opportunity to abandon the study at any stage;
- Factors in questionnaire, i.e. the avoidance of bias and assurance of validity and reliability in the questionnaire must be considered with needed methodological rigor;
- Interviewees must be guaranteed that the research will not harm them and their privacy will remain unharmed;
- Interviewees will be explained how exactly they will benefit from participating in the research;
- Data information should be processed according to the objective information acquired, not the personal views of the student researcher.

## **CHAPTER FOUR**

### **4. DATA PRESENTATION AND ANALYSIS**

#### **4.1. Introduction**

This chapter presents the data analysis, discussion and findings of the study to answer the objective of the research using descriptive analysis. To do this study a total of 26 questionnaires were distributed physically to the targeted group of employees. These questionnaires were distributed to employees of Des general trading PLC. Out of the total 26 questionnaires 25 were fully responded and returned, thus achieving 96 percent response rate.

##### **4.1.1. Respondents Demographic Data**

The respondents were asked a series of questions in relation to their biographic designed to determine fundamental issues including the demographic characteristics of the respondent. The findings are discussed below.

##### **Gender**

According to the above data in table 4.1 the majority of respondent are female that is 22(88%) of the respondents and the remaining 3(12%) respondent are male. This indicated that dominant numbers of the employees in the organization are female.

##### **Age**

According to table 2, 18(72%) of the respondents are between the age of 30-39, 6 (24%) and the rest of respondents 1(4%) are between the age of 40-49. This shows that majority of the respondents are young and on the age of productivity.

##### **Education Qualification Level**

With regard to education qualification level, according to table 3 presented, 2(8%) have certificate 4(16%) of the respondents have college diploma, and the rest 19(76%) the respondents have bachelor degree. Accordingly, most of the respondents had some form of academic qualification. This indicates that the company has well educated employees and it helps them to know the importance of cost accounting system.

## Work Experience

As can be seen from item table 4, 18(72%) of the respondents have below 5 years and 6(24%) have between 6-10 years of work experience, 1(4%) of the respondent also have above below 15 years working experience. Based on the data majority of the respondents have an experience of below year. This implies that the respondents have had good knowledge to evaluate the company performance. The above results suggest that 72% of the respondents had below five years of experience in their respective positions and thus were expected to be knowledgeable about the operations of their business.

Table 4.1 Biographical Data

Biographical Data			
Gender			
	Number	Percent	Cumulative Percent
Female	22	88	88
Male	3	12	100
Total	25	100	
Age Group			
Age Interval	Number	Percent	Cumulative Percent
20-29	18	72	72
30-39	6	24	96
40-49	1	4	100
Total	25	100	
Education qualification level			
	Number	Percent	Cumulative Percent
Grade 12 and below	2	8	8
Diploma	4	16	24
Bachelor Degree	19	76	100
Total	25	100	
Work Experience			
	Number	Percent	Cumulative Percent
Below 5 years	18	72	72
5-10 years	6	24	96
Above 15	1	4	100
Total	25	100	

#### 4.1.2. Cost Accounting Methods

In the second part of the questionnaire, one of the questions asked to the respondents was to specify the methods of cost accounting used by the company. As with the distribution shown in Table 4.2 below, the costing method used by a company is process costing and absorption costing with the maximum respondents' result of 44%. Absorption costing is the inclusion of all costs to generating output. Absorption costing is not always suitable for decision making, solutions to various types of problems of management decision making, where the absorption cost method would be particularly in effective, such as whether to buy or manufacture, evaluation of performance, can be had with the help of marginal costing analysis which allocates variable costs to products and provides information for short decision making.

Table 4.2 Cost Accounting Methods

		Not at all	Little	some what	Considerably	Very great extent	
Job order costing	Number	2	21		2		25
	Percent	8	84		8		100
Process Costing	Number	1			13	11	25
	Percent	4			52	44	100
Activity based Costing	Number	2	21		2		25
	Percent	8	84		8		100
Absorption Costing	Number				14	11	25
	Percent				56	44	100
Marginal Costing	Number	2	21		2		25
	Percent	8	84		8		100

#### 4.1.3. Cost analyzing data

As it can be seen from the table 4.3 most of the respondents 18 out of 72% has given an answer that indicates the accounting system provides data to allow the organization to

analyze costs by product, the company cost elements includes direct material cost, direct labor and manufacturing overhead but administrative overhead and selling and distribution is not included in the product costs and evaluated as period costs by the company. Based on the interview with interviewees Selling and distribution costs incurred in presenting to customers the products of the together with the cost of all relevant research work, the securing of orders and delivery of the goods to customers and that also includes the costs of after sales services or processes is treated as administrative expense. In the cost of material, the cost of packaging materials is included without classifying into primary and secondary that helps to ascertain and allocate to the proper cost of element which is the primary to product cost and the secondary to selling and distribution cost. The answer given to the question what cost include in the ending work in process most of the respondents given an answer that the company uses percentage completed material cost only. It doesn't take into consideration the labor and overhead cost and this might affect the inventory cost and the cost of goods sold of the company.

Table 4.3 Cost analyzing data

		Not at all	Little	some what	Considerably	Very great extent	
Product	Number	1			6	18	25
	Percent	4			24	72	100
Cost center	Number	4	16	3		2	25
	Percent	16	64	12		8	100
Activity	Number	6	17			2	25
	Percent	24	68			8	100
<b>Cost elements</b>							
		Not at all	Little	some what	Considerably	Very great extent	
Direct Material	Number				11	14	25
	Percent				44	56	100
Direct Labor	Number	2			15	8	25
	Percent	8			60	32	100
Manufacturing Overhead	Number				13	12	25
	Percent				52	48	100
Administrative Overhead	Number	11	13			1	25
	Percent	44	52			4	100
Selling & Distribution	Number	20	2		1	2	25
	Percent	80	8		4	8	100
<b>Working process Inventory</b>							
		Not at all	Little	some what	Considerably	Very great extent	
Percentage completed material cost only	Number	1	2		8	14	25
	Percent	4	8		32	56	100
Percentage completed material and labor cost only	Number	8	13	2		2	25
	Percent	32	52	8		8	100
Percentage completed material, labor cost and manufacturing overhead	Number	8	14			3	25
	Percent	32	56			12	100

#### 4.1.4. Controlling Methods

As it is shown in table 4.4 respondents were asked if there is a variance analysis between actual results and plan is prepared and presented to management. From the entire respondents 40 percent answered material variance analysis is somewhat labor variance analysis is little which is about 52 percent and overhead variance is with little use of 72 percent. So, the company is not preparing variance analysis report. But variance analysis helps to identify the favorable and adverse difference between standard cost and actual cost.

On the other hand most of the respondents which is 76% agreed that the organization uses standard costing for control methods. Depending on the result of the interview the standard cost used is the actual cost of the past year but it is not compared with the actual results. For this reason the company is not getting the benefits and utilities of standard cost that may be achieved by making comparison of actual performance with standard consumption of raw material, labor, power and other input costs through established variance analysis techniques.

Table 4.4 Variance analysis

		Not at all	Little	somewhat	Considerably	Very great extent	
Material Variance	Number	1	10	14			25
	Percent	4	40	56			100
Labor Variance	Number	8	13	2		2	25
	Percent	32	52	8		8	100
Overhead Variance	Number	8	14			3	25
	Percent	32	56			12	

#### 4.1.5. Existence of independent cost department

Among the questions asked to the respondents in this section was if the company has separate cost department/section dealing with cost and accounting issues and whether the company is benefiting from the cost accounting function. Among them who said no almost everyone responded that finance department is responsible for taking decision regarding costs and other related issues in their company. As it is shown in the table 4.5, 80% of the respondents agreed that the company has separate cost accounting section. According to the answer, 72% which is the majority of the respondents agreed the organization is not benefiting from the cost

accounting function. Based in the interview the cost section is not well organized in human resource and it doesn't generate the expected information and reports that helps for decision making. For this reason the company is not benefiting, most of the works are covered by all employees of the finance department to facilitate the necessary report.

Table 4.5 Existence of Independent cost Section

Availability of separate cost accounting Department			
	Number	Percent	Cumulative Percent
Yes	20	80	80
No	5	20	100
Total	25	100	
Organizational benefit from cost accounting			
	Number	Percent	Cumulative Percent
Yes	7	28	28
No	18	72	100
Total	25	100	

#### 4.1.6. Allocation of Overhead cost and Service Department Cost

Table 4.6 shows the details of the answers given to the question “Which base overhead allocation bases are used for the allocation of manufacturing overhead costs” 88% of respondents agreed most widely used overhead allocation bases are units produced and 12% is direct labor cost., 28% of the respondents indicated that they allocate service department costs, while 72% do not allocate service department costs. The company does not allocate service department costs to other departments. It records the cost as administrative expenses. But based on the literature, it is essential to establish control over service department costs and to devise effective means for charging the cost to departments receiving the services. The costs of the service department delivered traceable to benefiting departments are classified as direct department costs, even though they may originate in a maintenance department. All such actual costs shall be charged to the service department and the department supervisor shall be responsible for keeping costs within budget. However, because the service department activity is a service function, its costs ultimately shall be allocated to departments receiving the service.

Table 4.6 Allocation of Overhead Cost and services Department

Base for Allocation of manufacturing overhead costs			
	Number	Percent	Cumulative Percent
Direct labor costs	3	12	12
Production	22	88	100
Total	25	100	
Allocation of Support/service department cost			
	Number	Percent	Cumulative Percent
Yes	7	28	28
No	18	72	100
Total	25	100	
Methods of Clarification			
	Number	Percent	Cumulative Percent
Service department costs are allocated directly to operating departments.	9	36	52
Service department costs are allocated to other service departments, then to operating departments.	5	20	68
Others	11	44	100
Total	25	100	

#### 4.1.7. Type of Decision Making by Cost Information

Table 4.7 shows that the cost information used for the purpose of financial accounting with 80% of the respondents and Inventory valuation and also price decision which have agreed with consent but the information that helps to make decision on performance evaluation, cost control and production process is not prepared. The respondents have been asked whether the

cost accounting department has satisfactory information for pricing special orders, 80% of the respondents agreed that it is not prepared cost information for pricing of special orders. Referring to the literatures, cost accounting information system is designed to provide valuable information useful for the management of the company to assist them in the exercise of its various functions of planning, control and decision-making where management needs cost information- accurate, fast and reliable.

Table 4.7 Decision making by Cost Accounting Information

		Not at all	Little	some what	Considerably	Very great extent	
Financial Accounting	Number	2	3			20	25
	Percent	8	12			80	100
Inventory Valuation	Number				22	3	25
	Percent				88	12	100
Pricing Decision	Number			1	17	7	25
	Percent			4	68	28	100
Performance Evaluation	Number		22		1	2	25
	Percent		88		4	8	100
Cost Control	Number	10	11	2		2	25
	Percent	40	44	8		8	100
Production Process	Number	9	14			2	25
	Percent	36	56			8	100

#### 4.1.9. Qualitative Characteristics of Cost Information

As it is described in table 4.8, the cost accounting information provides information on a systematic manner is 64% of the respondent is little in daily bases, 56% is presented little in monthly bases, 68% presented considerably in quarterly bases, 72% presented in very great extent in yearly bases and providing information based on user’s request is one of the useful factors of information and the result provided was 72% of the respondents agree that it is presented little up on request. This indicates that company is provided information on yearly base and in quarterly base considerably. The company’s report is prepared that helps to prepare financial accounting reports that may publish annually or less detailed accounts may be published semi-annually. While, cost information that helps for management accounting reports on various activities may be prepared at daily, weekly or monthly intervals depended on management needs but it is not prepared on this manner. Furthermore the respondents were also asked to what extent the accounting information has their company produce

qualitative characteristics and submit it to management. As it is described in table 12, the cost accounting information provides information on a systematic manner is 80% of the respondents agreed up to date presentation is in little level, 88% of the respondents agreed accurate presentation is considerably, 68% of the respondents agreed reliable presentation is considerably, 88% of the respondents agreed relevant presentation is little. This indicates that the company professionals submit their report accurate and reliable data.

Table 4.8 Qualitative Characteristics of Cost Information

Period of Presentation of cost accounting information							
		Not at all	Little	somewhat	Considerably	Very great extent	
Daily	Number	16	9				25
	Percent	64	36				100
Monthly	Number	6	14	3		2	25
	Percent	24	56	12		8	100
Quarterly	Number	2	6		17		25
	Percent	8	24		68		100
Yearly	Number				7	18	25
	Percent				28	72	100
Up on request	Number	7	18				25
	Percent	28	72				100
Qualitative characteristics of cost accounting information							
		Not at all	Little	some what	Considerably	Very great extent	
Up to date	Number	2	20			3	25
	Percent	8	80			12	100
Accurate	Number				22	3	25
	Percent				88	12	100
Reliable	Number			1	17	7	25
	Percent			4	68	28	100
Relevant	Number		22		1	2	25
	Percent		88		4	8	100

As it is shown in the above table 4.9, 84% of the respondents indicated that company did not establish Activity based costing principles. The company was asked whether it has adopted Activity Based Costing principles, and the results are as summarized in table 20. As shown in the table, only 92% of the respondents indicated that they have not adopted Activity Based Costing (ABC) principles. Regarding the reason of not adoption of ABC 52% of the

respondents have responded ABC is not very well known, 24% of the respondents responded that ABC is not suitable to their company, 8% of the respondents responded current system provides accurate result, 8% of the respondents responded expected that ABC's additional cost is greater than its benefit and 8% was responded they do not have previous knowledge of activity based costing. A major advantage of using ABC is that it avoids or minimizes distortions in product costing that result from arbitrary allocations of indirect costs. By tracing costs through activities, ABC provides more accurate service or product costs. Also important is that ABC encourages in evaluating the efficiency and cost effectiveness of activities. ABC, on the other hand, aims at allocating all the costs required to produce and market a product in the long run. It focuses on long term decisions such as product design and production and involves allocation of fixed costs that use assumptions about the proportion of costs but ABC less suited for short-term decision making.

Table 4.9 Adoption of Activity Based Costing

Establishment of Activity based costing Principles			
	Number	Percent	Cumulative Percent
Yes	4	16	16
No	21	84	100
Total	25	100	
Discussion of Adoption of Activity based costing			
	Number	Percent	Cumulative Percent
Yes	2	8	8
No	23	92	100
Total	25	100	
Reason of Not Adoption of Activity based costing			
	Number	Percent	Cumulative Percent
Current system provides accurate results	2	8	8
ABC is not suitable to this company	6	24	32
It is expected that ABC's additional cost is greater than its benefit	2	8	40
ABC is not very well known	13	52	92
Other	2	8	100
Total	25	100	

## **CHAPTER FIVE**

### **5. CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1. Introduction**

This chapter conclusion obtained from the findings of the research study. Recommendations are also provided making use of research findings and suggestions for further studies.

#### **5.2. Conclusion**

This chapter gives conclusion obtained from the findings of the research study.

The findings of this study indicate that the company use absorption cost allocation approaches. The company is giving priority to absorption cost technique as a costing technique. This method of costing considers fixed and variable cost as a part of product cost. The company does not use marginal costing technique which relate to the change in output and examines the additional costs incurred in increasing production by a given quantity. In the cost accounting literature, it is proposed that marginal costing is more appropriate for decision making than full costing. Activity Based Costing (ABC) is not yet common in the company and is not well familiarized with the principle.

Based on the study of the cost accounting practice of the company element of product costs are classified as direct materials, direct labor, and manufacturing overhead and manufacturing overhead costs are allocated to the products on departmental bases. However, during the interview with the managers, the company includes both primary and secondary packaging in the production cost. The non-manufacturing expenses which is administrative overhead and selling and distribution were not included in product costs for financial accounting purposes and are considered as period costs, the company does not classified the operating expense into administrative expense and selling and distribution expense. The selling and distribution expenses are included in the administrative expense, for those clients that want transport to be managed at the expenses of the company, the company delivers different orders freely and the shipping cost and the costs associated to the products is considered as administrative overheads.

The company uses actual production output in determining an overhead application rate, and the problem of dealing with variance analysis is not common in the company. The company

uses the standard costs in processing its cost and at the end of the year to write off under or over recovery of overheads through profit and loss account.

Service department cost allocation is not practiced by the company. Costs related to all the actions taken in order to repair or apply maintenance to the machinery of the company and preparing molds for different models of production is not allocated to the production departments instead considered as an administrative overhead.

The partially processed products at the end of period cannot be taken as full unit for the purpose of calculation of unit cost. The unfinished product should have a cost based on a material, labor and factory overhead with percentage of completion since it affects the cost of goods sold and inventory due to the behavior of negative relationship of inventory and cost of goods sold. The company includes the cost work in process the percentage completed material cost only.

The reason of using of cost information by the company is to provide information for external users. The main important purpose of the company for cost are to fulfill external financial accounting requirements, such as stock valuation for balance sheet purposes and to fulfill the tax obligation of the state and a little consideration is given to the price decision for managerial decision.

Management requires relevant information for making routine and special decision and the cost information delivered by the finance department are necessary in making decisions. The accounting department is expected to provide information to all levels of management. The reports could be useful only when they are provided at the time needed by managers, understandable by users, prepared in the way users needed to be and complete. However, the result of the study shows reports are prepared in accurate and reliable manner but up to date information are not always provided that helps managers making decisions up on their request when they are in need of making various decisions The timeliness and relevance of the report are not satisfactory. Even though there is a cost section in the company, the employees in cost section are not sufficient to make the required cost accounting information.

### **5.3. Recommendation**

The researcher recommends the following

- The company is using the cost information for financial reporting and inventory valuation based on traditional accounting systems, the company is better to use either

two separate accounting systems or a modern accounting software which satisfy the needs of the company both for financial accounting and other managerial decision purposes. In addition it will be helpful for the company to use marginal costing that helps to analyze the cost for decision making.

- In order to produce the necessary report accounting information for the users, cost section should have adequate number of employees and well structured. Accounting manual and policy which is intentionally designed for cost accounting should be prepared and used.
- The company's cost structure should be revised that helps to differentiate the administrative expense and selling and distribution expense.
- The packing materials should be divided into primary packaging that uses production cost and secondary packaging material which should be charged to selling and distribution expense.
- The company's costing system of work in process at the end of the period should be that includes material, labor and manufacturing overhead based on percentage completion of the production process.
- Service department cost should allocate to the departments instead of costing directly to the administrative expense.
- ABC as a new and sophisticated cost system, it has not been given significant importance by the company yet. The Company should give training to its employees and better have started the adoption process of ABC that is useful in the allocation of indirect costs.

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## Appendix I

### ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING & FINANCE (MSc. in Accounting and Finance)

Dear Respondent

The purpose of this study is to assess *The Cost Accounting Practice, a Case Study of Des General Trading PLC in Ethiopia*. The success of the study is highly dependent on your valuable response for the question raised. Therefore, you are kindly requested to give your response for each question raised related to the use of cost accounting practice in your company. The participation is fully voluntary and responses will be treated confidentially. The results will be used for academic purposes and identity of the respondents will not be disclosed in any manner. I would appreciate your positive consideration in completing the enclosed questionnaire and assisting me in my research efforts.

If you have any questions please call +251-911-646-796 or email [kubromnegashd@gmail.com](mailto:kubromnegashd@gmail.com).

#### SECTION A: BIOGRAPHICAL DATA

Instructions: Please provide the following information by making a “tick mark” in the appropriate block where the options are provided.

Please indicate your gender

Male

Female

2. Please indicate your age group (in years):

20 – 29       30 – 39       40 – 49       50 and above

3. Please indicate your highest education qualification level

General education       Bachelor Degree

12<sup>th</sup> grade complete       Master Degree and Above

Diploma

4. Your work Experience in this organization (in years)

Below 5 years       5 to 10       10-15       above 15

5. In what position are you working in your company? \_\_\_\_\_

**SECTION B: QUESTION UNDER RESEARCH**

The following are scales you attach to each question posed. Indicate how strongly you agree to each by making/putting a tick symbol (√) in each column. Please use the following scale: Not at all (1), little (2), somewhat (3), considerably (4) and to a very great extent (5).

6. To what extent does your organization is using the following costing systems?

	1	2	3	4	5
Job-order costing					
Process costing					
Activity-based costing					
Absorption Costing					
Marginal Costing					

7. Identify to what extent the cost accounting system provides data to allow you to analyze costs by

	1	2	3	4	5
Product					
Cost Center					
Activity					

8. What costs includes the cost structure of your Organization

	1	2	3	4	5
Direct Material					
Direct labor					
Manufacturing Overhead					
Administrative Overhead					
Selling & Distribution					

9. What costs include in the ending work in process

	1	2	3	4	5
Percentage completed Material cost only					
Percentage completed Material and labor cost only					
Percentage completed Material, labor and manufacturing overhead					

10. Identify to what extent the cost accounting system calculates the following Variances

	1	2	3	4	5
Material variance					
Labor Variance					
Overhead Variance					

11. Users make use of cost accounting information when they make decisions

	1	2	3	4	5
Financial accounting					
Inventory Valuation					
Pricing decision					
Performance evaluation					
Cost Control					
Production Process					

12. To what Extent the cost accounting system provides information on a systematic regular base

	1	2	3	4	5
Daily					
Monthly					
Quarterly					
Yearly					
Up on request					

13. To what extent the accounting information has qualitative characteristics

	1	2	3	4	5
Up to date					
Accurate					
Reliable					
Relevant					

14. Do you have separate cost accounting department (section)?

Yes ( )          No ( )

15. Do you think the organization is benefiting from the cost accounting function?  
 Yes ( )                      No ( )
16. Do you think that cost accounting department has satisfactory information for pricing special orders?  
 Yes ( )                      No ( )
17. Which control methods do you use for cost control?  
 Operational budgets ( )  
 Standard costing ( )  
 Defect, spoilage, etc., ratios ( )  
 Departmental performance evaluation ( )  
 Kaizen Costing ( )
18. Which base or basis do you use for the allocation of manufacturing overhead costs?  
 Direct labor hours ( )  
 Direct labor costs ( )  
 Machine hours ( )  
 Direct materials amount ( )  
 Direct material costs ( )  
 Production ( )
19. Does your company allocate support/service department costs?  
 Yes ( )                      No ( )
20. If your answer to number (13) above is "yes", please describe the method used;  
 a. Service department costs are allocated directly to operating departments ( )  
 b. Service department costs are allocated to other service departments, then to operating departments ( )  
 c. Other (Specify) \_\_\_\_\_
21. Has your company established Activity Base Costing (ABC) Principles?  
 Yes ( )                      No ( )
22. Do you discuss to adopt activity based costing (ABC)?  
 Yes ( )                      No ( )
23. If not, why?  
 Current system provides accurate results ( )  
 ABC is not suitable to this company ( )  
 It is expected that ABC's additional cost is greater than its benefit ( )  
 ABC is not very well known ( )  
 Other (Explain) \_\_\_\_\_

***Thank you for taking the time to complete this questionnaire. Your assistant in providing this information is very much appreciated.***