This thesis is my original work and has not been presented for a degree in any other University.

E. R. MAPETLA

This thesis has been submitted for examination with my approval as university supervisor.

G. K. CHYBIRE

"STANDARD COSTING PRACTICES OF KENYAN MANUFACTURING FIRMS"

by

E. RAMOSEHLANA MAPETLA

A thesis

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TABLE OF CONTENTS

Cont...

Cont....

Cont....

LIST OF TABLES

LIST OF EXHIBITS

A B S T R A C T

This study is about standard costing. An important goal of cost accounting is cost control. Without cost control, waste, errors, and inefficiencies may result which dissipate the company's potential net earnings. This also means waste and loss of our scarce natural resources, which is undesirable.

An essential requisite of effective cost control is a norm against which management can measure the results of actual operations. Where little or nothing exists by way of standards of reference, the prompt pinpointing of variations in performance by reason or source becomes almost impossible. This is the major limitation of historical cost accounting; and standard costs have been developed to overcome this limitation. It is much more important to know what a product should cost and the excesses over this cost than what it has cost. Variances between standard costs and actual costs are analyzed as to cause in order that future operations might approach or meet the standards. A standard costing system has as its object to ensure that steps will be taken to eliminate the faults and wastes, and increase efficiency in performance.

The indispensability of standard costing for rigorous cost control has long been recognized in developed economies. In the researcher's opinion, the need for the adoption of this technique in less developed countries, where there is an even greater scarcity of resources, is even more. No study has been conducted in Kenya on the use of standard costing and, therefore, little is known about whether or not this useful technique is used.

The purpose of this study was to examine the extent to which standard costing is used in Kenya. The extent here was measured in two ways: First in terms of the numbers of firms that use against those that do not use the technique. Secondly, specific critical areas in standard costing were selected for study in determining how far the technique had been adopted by those companies that use the technique in Kenya.

One major hypothesis and two corollary hypotheses were investigated. The main hypothesis was that: Standard costing is not used to a great extent in Kenya.

Corollary hypotheses were that:

(i) where it is used, the gap between theory and practice will be wider than in developed countries.

(ii) the use of standard costs is not extended to inventory valuation.

In the researcher's view, lack of stiff competition, lack of expertise, and lack of funds justified the hypothesis and its corollary hypotheses.

The study was based on those manufacturing companies located in Nairobi, Mombasa, Eldoret, and Thika, and employing 100 or more people. For the first part of the study, mainly letters and, to some extent, telephone and personal contact were used to collect the data. The second part employed the questionnaire mainly and some personal interviews.

The main hypothesis and its corollaries were upheld. The evidence also supported the justifications. However, lack of funds was conditionally upheld. The principal conclusions from this study may therefore be stated as follows:

1 - That lack of competition, and lack of expertise provide some explanation as to why standard costing is not used to a great extent in Kenya.

2 - That the use of standard costing is an increasing function of economic advancement. With the growth of the industrial sector, tighter business conditions, and higher educational standards, more and more manufacturing firms will use the technique.

3 - That the adoption of standard costs is necessary for rigorous cost control and the efficient allocation of (scarce) resources. It is necessary, therefore, that a conscious effort is made to expedite the adoption of standard costing.

CHAPTER 1

1.1. INTRODUCTION

Many definitions of "Standard costs" are possible, but one which has found general acceptance is that;

> "Standard costs are pre-determined, or forecasted estimates of cost to manufacture a single unit, or a number of units, of a product, during a specific immediate future period"[1]

Their intensive use started in American industry as far back as shortly after World War I, when the absence of government supported demand precipitated a slump in business activity.[2]

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1 - Owler, L.W.J., and Brown, J. L., WHELDON'S COST ACCOUNTING AND COSTING METHODS, 13th ed., (LONDON: MACDONALD & EVANS LTD., 1971) pg. 540.

2 - STEPHEN A. ZEFF, STANDARD COSTS IN FINANCIAL STATEMENTS - THEORY AND PRACTICE, in H.R. ANTON & P.A. FIRMIN'S CONTEMPORARY ISSUES IN COST ACCOUNTING, 2nd ED (HOUGHTON MIFFLIN COMPANY, 1972) pp. 348 - 58.

Businesses had to tighten their cost belts in order to survive. Due to the Industrial Revolution, businesses have grown from one-man shows and continue to grow to enormous sizes and with them grows competition. The need for even tighter cost control grows further. Hence the need for use of standard costs has been perpetuated.

Cost control is probably the most important aim of any costing system, and standard costing gives due recognition to this fact. An essential requisite of effective cost control is some norm against which management can measure the results of actual operations. Standard costs are this norm. The model for planning and control used in standard costing compares actual and expected results, significant deviations giving rise to action either by the responsible manager or his supervisors - in order that future operations might approach or meet the standards. It is the main purpose of a standard cost system to establish an adequate yardstick against which to measure costs and facilitate their control, to stimulate the "cost consciousness of all executives and to encourage individual action to reduce costs and increase output."[3]

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3 - This view is shared by, among the many others, ORGANIZATION FOR EUROPEAN ECONOMIC CORPORATION, "COST ACCOUNTING AND PRODUCTIVITY" (PARIS,1952)p.51

Several other advantages have been learned by cost accountants. Apart from allowing management to plan production, control costs, and determine sales prices, they also;

- reduce book-keeping costs (clerical labour, and cost). Entries can be made without recomputing costs.

- since the price and efficiency variances serve as a measure of departmental and individual performance greater effectiveness in responsibility accounting is created.

It is for these reasons that standard costing has become so generally accepted as a useful accounting technique in industry. A full derivation of these benefits depends much on a careful establishment and operation of the standards. In turn, this is contingent upon the existence of a motivation to go to those pains and the availability of funds to finance, and expertise/skilled manpower to maintain the system.

A pertinent question to ask at this juncture is whether these conditions and resources are available at the disposal of our firms in Kenya; and therefore, whether standard costing is applied and the said advatages derive

1.2 OBJECTIVE OF THE STUDY

The basic premise of this study is that standard costing is primarily a practical and useful tool for management to-day. It has proved itself in the U.S. and other parts of the developed world. It is desirable that this technique be transferred to the developing countries where the acute scarcity of resources demands an even greater efficiency in the use of those that are available. We have to be mindful of the long-term certainty that the waste, loss, and depletion of our natural resources will, if uncurbed, effectively silence many industries altogether.[4]

The main objective of this study is to determine the extent to which standard costs are used, by manufacturing companies in Kenya. The extent here is defined in terms of:

(a) the numbers of firms using the technique and,

(b) the advancements made by individual firms in the adoption of the technique.

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4 - Here the reseacher shares the views of STANLEY B. HENRICI, STANDARD COSTS FOR MANUFACTURING, (U.S.A. McGRAW-HILL BOOK COMPANY, INC.), 1953 p. 1.

A second and minor objective is to identify the main problems of operating standard costs in Kenya.

1.3 STATEMENT OF THE HYPOTHESIS

The main hypothesis of this study is that: Standard costing is not widely used in Kenya.

1.3.1. COROLLARY HYPOTHESES

(i) Where standard costing is used, the gap between theory and practice will be wider than in developed countries.

(ii) The use of the technique is not extended to inventory valuation and financial statements.

In the researcher's opinion, the following factors justify the hypothesis and its corallary hypotheses. Lack of expertise - where this means and includes knowledge about the technique and/or enough knowledgeable manpower to man the system; lack of funds; and lack of stiff competition to act as a motivating force for rigorous cost control.

With respect to corollary hypothesis (ii), the justification would be that cost accountants may have "sold" managements on the control value of standard costs, but have most probably not succeeded in convincing them that standard costs are "real" costs and thus should be recognized in financial accounting statements. Due also to the aforesaid factors, standard costs of such sophistication are likely not to be found in Kenya yet. This corallary hypothesis (ii) is in direct contrast to the findings of a 1947 N.A.C.A. Questionnaire survey [5] which revealed that of 65 companies which used standard costs and treated all of the different material and labour variances alike in the accounts, 54 firms closed these variances to cost of goods sold. Of the 127 companies which used predetermined overhead rates, approximately 80% closed both under - and overabsorbed overhead variances to cost of goods sold. This indicated a wide spread usage of standard costs for inventory valuation.

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5 - "COST INCLUDED IN INVENTORIES," NATIONAL ASSOCIATION OF COST ACCOUNTANTS RESEARCH SERIES NO.10 Section 3, NA.(C) A BULLETIN, August 15, 1947 pp. 1598 & 1601.

1.4 IMPORTANCE OF THE STUDY

This study is a fact finding one and as such should be of interest to academicians, professionals, and business people;

(i) For the professionals and academicians, it is expected to reveal how much they have "sold" to managements on the value of standard costs; and what efforts are necessary for further appraisal.

(ii) It is expected that problems of operating standard costs in Kenya will be revealed and, where possible, corrective effort may be taken.

(iii) For the business people, the proposed evaluation is expected to reveal alternative methods open to them in their application of standard costs. From these, a choice may be made of the most suitable for achieving their objectives in their given environments. Government may get invaluable information for future policy and decision making.

1.5 RESEARCH METHODOLOGY

While standard costing technique can be applied to a business of almost any type or size, this study was confined to manufacturing firms only. The Directory OF INDUSTRIES, 1974 and its supplement of 1977, from the CENTRAL BUREAU OF STATISTICS was the source for manufacturing companies in Kenya. Only firms employing one hundred or more, according to the said source, located in Nairobi, Mombasa, Eldoret, and Thika were selected for the study. The reasons for this are:

1) - It was found that firms employing less than 100 persons included even such undertakings as a group of tailors who are not manufacturing firms as such. It would be difficult to sort these out of the sample.

2) - It was also felt that an insignificant number of firms of the size less than 100 employees could be found to use standard costs, and,

3) - The resources (mainly time and money) available for this study did not permit an all round study.

4) - The concentration of these firms also had something to do with the choice of the said locations. Of the 191 firms employing 100 and more people in Kenya, about 53% (102) is located in Nairobi, 15% (29) in Mombasa, 4% (8) Eldoret, 3% (6) in Thika, and the rest are scattered all over the rest of the country. The selected areas (Nairobi, Thika, Eldoret, and Mombasa) constitute 75.9% (145 firms) of the total population.

In trying to identify and/or find out the number of firms that use standard costing, letters were sent to general managers of all the 145 firms asking them to say whether or not they used the technique, and, if so, if they would be willing to complete a questionnaire relating specifically to the standard costs. (see appendix 1 for a copy of letter sent).

A questionnaire was used as an instrument for collecting data in respect of the ways in which standard costing was operated by individual companies. The researcher visited and personally interviewed cost accountants, financial controllers, chief accountants, and/or financial managers of the companies, and during these discussions the questionnaire was completed (see appendix II for the questionnaire). While this method of personal visits is rather expensive in terms of time and money, it was felt that a lot more information could be gained in this way.

1.6 PROBLEMS AND LIMITATIONS OF THE STUDY

Letters sent during the first round of the study got a very low response. This necessitated the sending of second letters to non-respondents and some more responses were obtained. However, it was felt that the number of respondents was still unsatisfactory. The total responses yielded by letters sent were:

Nairobi	40 out of	102
Mombasa	6 out of	29
Eldoret	4 out of	8
Thika	4 out of	6
	54 " "	145

In Nairobi and Mombasa more responses were gained by telephone and more by making personal visits to the non-respondents, and these visits were undertaken concurrently with the actual survey on positive respondents. At least responses from 41 companies could not be obtained either because they refused to cooperate, could not be traced or because it was not possible to get to the relevant authorities - On several occasions the managers were not in and nobody else could accord any such help without the general manager's authority. Time and resources available, at the disposal of the researcher, did not permit a telephone and/or personal follow up of the letters to try and get more responses from Thika and Eldoret. So that the number of responses were entirely gotten by letter. For the same reason(s) the actual questionnaire interviews were limited to Nairobi and Mombasa. To this extent the study is limited.

Another limitation is due to the fact that the Directory of Industries was compiled through a spontaneous exercise - in the course of the annual statistical surveys and supplemented where necessary with subsequently obtained details.

The directory, therefore, includes particulars only of firms which cooperated in supplying information. The CENTRAL BUREAU OF STATISTICS warn, therefore, that although the directory includes a high percentage of firms in the manufacturing sector, some have inevitably had to be excluded.[6]

1.7 ORGANIZATION OF THE STUDY

In chapter two, an attempt is made to put the need for cost control into proper perspective. It tries to show how standard costs fit in. This is done by reflecting on the evolution of control systems.

Chapter three deals with the selected areas for investigation of the extent to which standard costing is used. It presents or reviews the literature with respect to each area and shows some of the controversial issues in them.

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6 - DIRECTORY OF INDUSTRIES, 1977 edition, CENTRAL BUREAU OF STATISTICS, (THEN), MINISTRY OF FINANCE & PLANNING, Sept. 1977 p. (i)

Chapter four deals with the further elaboration of the study design and its limitations, presents the findings in respect of the first definition of extent - numbers of firms using the technique. Chapter five presents the findings in respect of practices of the firms that use the technique.

A summary, and conclusions form the sixth chapter. Recommendations are also made in this chapter.

CHAPTER 2

2.1 THE NEED FOR COST CONTROL IN PERSPECTIVE

Judging from the fragmentary evidence that has survived, modern business accounting is not the product of a sudden flash of genius to meet a long-felt need. It did not develop overnight, but is the result of a long and gradual process of evolution.[7] So that a study in business accounting (financial, managerial and/or cost) needs, to be meaningful, to be preceded by some understanding of these developments and the development of the management process for which it was meant and dependent, with specific reference to the manufacturing enterprises.

Manufacturing industries started as small entrepreneurs or craftsmen several centuries ago. As early as that, there was accounting for finished goods (cost accounting) as well as for the basic and the precious commodities used in barter (financial accounting). In Europe some manufacturers carried out cost accounting prior to the Industrial Revolution.

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7 - COWAN, T.K., THE COST ACCOUNTING FUNCTION (SWEET & MAXWELL LTD., NEW ZEALAND, 1965)

Then there was, however, little need for cost accounting data as a means for price determination and cost control, for manufacturing and selling were controlled by the highly monopolistic guilds.

Later guilds were weakened as tradesmen revolted against the guilds' restrictions and moved out of the towns to establish industries in the freedom of the country areas. Religious persecutions also led immigrants into England who came with new skills and new industries. Merchant adventurers also expanded trade and brought in new wealth and new demands for basic commodities such as wool and cloth.

The Industrial Revolutions further weakened the stability and confinement of the guild society. With it came the invention of machinery and the application of power to these machinery. This became the major factor in the development of the factory system. Manufacturing, mining and transport were revolutionized. Improved transport resulted in expanding markets, and the development of distribution trade. As manufacturing businesses grew in size and new industries developed, some craftsmen were forced out of business.

At around this time price was a function of supply rather than demand and the cost accounting function was the ascertainment of costs, primarily with a view to fixing selling prices or estimating the cost of jobs on contracts.[8]

These developments called for the mobilization of financial resources and joint stock companies became the typical form of business organization.

> "The individual entreprenuer still had his place in the small undertaking, but a feature of major enterprises was the seperation of ownership and management. The emergence of the major enterprise, and of the management class had had important repercussions in the cost accounting field"[9]

The craftsman could plan, coordinate, and control the operations of his business so as to achieve maximum long-term profit easily because he was concerned personally with all the activities

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8 - IBID

9 - IBID p.3

of the business. The industrial developments brought in different problems for the management of modern factory.

Profit making is one of the main objectives of a business. Without profit, a business cannot survive since it both needs its own financial reserves for future development and has to satisfy shareholders - or whoever has money invested in it - that the investment is worthwhile presently, and even at a future time. Broadly speaking, profit is the excess of revenue over costs and expenses. High costs and expenses reduce profits just as much as low prices. In order to increase profits or at least maintain an acceptable margin, a business can either raise its prices or control and/or reduce costs.

Unlike in the guild society, management of a modern factory is detouched from the actual activities of the organization. This is because they have a much bigger contingent of employees, much more complex, scientifically planned organization structure with a team of specialist administrators reaching from the top down to those executives who supervise the actual operations of each small section of the enterprise.

On the other hand, their (management's) businesses must meet, first the contests of similar products offered by other companies, be they local or foreign concerns. There is also the impending danger that some new products will spring up to starve out all its predecessors by the vigor of its growth. The menance of competition, unknown in the guild society, is always threatening the continuance of the enterprise. These limit the latitude for businesses to increase prices in order to maintain or increase profit margins.

Besides competition, increasing prices is also undesirable economically, socially, and politically. In fact, one of the duties of the state is that of stabilizing prices (others being increased employment, steady growth, and social security). So that if unchecked by rival companies increasing prices will be stopped by the state. For, an economy characterized by ever incresing prices faces serious problems. A persistent upward movement in the general price level leads, among other things, ".. to a redistribution of real income which is arbitrary and which therefore, may well be

socially unjust."[10] Inflation also may lead to balance - of - payments difficulties by restricting exports and by stimulating imports. Inflation robs the creditors and compensates the debtors. It discourages savings, leads people to holding assets less liquid and this costs people time and effort required to convert their liquid balances, let alone the inconveniences of illiquidity. It also goes so far as distoring business habits, personal habits, and also institutions in general - accounting system, tax system and/or general legal system.[11]

There is also the certainty that the waste, loss, and depletion of our natural resources will, if uncurbed, effectively silence many industries. This suggests that increasing prices, although preferable from the business point of view for reasons of being less involved and administratively and technically easier than cost control, it is not normally easy and it is undesirable.

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10 - A.J. Hagger, INFLATION: Theory & Policy (LONDON: THE MACMILLAN PRESS LTD., 1977) pp. 15.

11 - IBID PP 16 - 17

Modern management are left with the alternative of cost control if they are to remain in business.

The complex nature of modern businesses, however, makes this alternative a gruelling one. This is so for reasons just reviewed above and for the reason that effective cost control requires that a thorough analysis and understanding of their elements - direct material, direct labour, and overhead - be made. There has to be understanding of the costs and the variables that influence them.

The control function assumes the existence of a plan, a system whereby management sets objectives and actual operations are related to the objectives and significant deviations indicated and analyzed to determine causes for deviation. Finally, it suggests corrective action to assure performance according to plan. Giving priority to accounting for the effective control of costs should not imply that accounting is all that is involved in controlling a business, but to indicate that whatever the case, the result of success or failure is necessarily expressed in accounting terms.

Such non-accounting methods as making all workers part-owners of the business would, it might be argued, be more effective, yet even in this situation some means of measuring efficiency is still desirable. Qualitative measures of efficiency are useful and where control standards are set up for any type of company activity, it is customary to use accounting and cost data as the tools of control.

2.2 BUDGETS AND STANDARDS COMPARED

The budget is perhaps the most important plan of the enterprise. The use of budgets, particularly in connection with the control phase of management, has been termed budgetary control. It defines the boundaries within which jobs, tasks or activities are kept through continuous supervision. A budget is a statement of expected activities, and as such acts as a guidepost which keeps a business on a charted course. Because budgets, and standards, aim at the same objective - managerial control - and both use predetermined expenses for the coming period, and both make it possible to prepare reports which compare actual costs and predetermined costs for executives, their distinction may be difficult to perceive.

However, this distinction should be obvious from our definition of standard costs and what has been said about a budget.

Standards tell what output will be if certain performances are achieved and not what output is expected to be. They stress the level to which inputs should be reduced while a budget emphasizes the volume of business and the output level which should be maintained if the firm is operated as desired. Even if the figures are set with the greatest care and with the cooperation of those involved, it can only be a fairly accurate estimate of what should be. The addition of the flexible budget as a refinement is a recognition of the weakness, within the budget area itself,[12] for control purposes of a budget per se.

For control purposes, we do not merely want to know what performance has been during a single period but also whether the performance achieved is good or bad.

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12 - A. MATZ, O.J. CURRY, and G.W. FRANK, COST ACCOUNTING (SOUTH-WESTERN PUBLISHING COMPANY; OHIO, 1967) p. 596.

Some balanced judgement of the accomplishment as well as the effort aspects of the performance determination. J.B. HENRICI [13] puts very succinctly the arguments against actual costs for control purposes and any system based exclusively there on: He says,

> "Any cost control based exclusively on the use of actual costs is inadequate because it stresses past performances. Instead of pointing at the best way to the best it merely attempts to hurdle the past, and it yields little useful information. A study of historical actual costs can never be fully revealing because it does not consider comparables. For example, if we compare actual costs - either of products or of operations - in two successive periods, we may find that the totals include many mutually interrelated factors. Some elements rose; others decreased; but whether they should have been expected to rise or fall is difficult to say.

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13 - J.B. HENRICI, Op. Cit. p.5

To determine why they changed is even more difficult, and to determine by how much they should have changed is impossible unless we have a fixed value to which to relate them - which would then be some sort of standard. The most we can do with such a system is to say that costs rose or fell, to point out certain obvious reasons (too late to do any good), and to hope piously that things will look better in the future."

Standard costs facilitate or enable the judging of the relative merits of a given period's performance. They provide an indication of the absolute merits of the performance, and to explain why performance is better or worse than it should be. This is justified by the fact that:

"Standards are scientifically determined estimates of what performance should be under stated operating conditions.

Standards can be determined for different situations brought about by varying conditions e.g. different production, varying order size and non-uniform

capabilities of men and machines.

Standards can be determined for both the accomplishment and effort aspects of performance."[14]

In the light of the weakness of actual costs, it is safe to say that standard costs are indispensable for effective cost control. For control purposes, budgets should not be built without the use of standards, as this can never lead to a real budgetary control system.

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14 - PAUL E. FERTIG, DONALD F. ISTVAN, & HOMER J. MOTTIGE, USING ACCOUNTING INFORMATION - an introduction, 2nd Ed. (U.S.A; HARCOURT BRACE JOVANOVICH, INC., 1971) p. 175.

CHAPTER 3

3.0 REVIEW OF SELECTED AREAS OF STUDY

It is difficult or even impossible sometimes to apply automatically to companies management systems/techniques taken from textbooks because each business is unique. This difference is present in businesses even of similar sizes and in the same industry. The same difficulty applies to the standard costing technique. It will vary, not only according to size and type of industry, but also the nature of its organization. It will be tailored to meet the particular needs of management in a particular business. To explain or investigate all standard costing practices of even five firms would be impracticable, and more so within the available time and money for this particular research. It was felt that this would also be unnecessary, because, even though tailored in practice to meet the particular needs of each organization, the general pattern and/or the general principles are the same in all.

Under no circumstances, therefore, was an attempt made to cover all the aspects of the standard costing practices of each of the firms visited. Instead only a few specific areas were selected for investigation. It was felt that a probe into these particular areas would sufficiently reveal the extent to which each individual company applies the standard costing technique without getting into small or petty details peculiar to each individual company.

The main selected areas for study were as follows:

1 - The main purpose(s) for using standard costs.

2 - The techniques used in setting the standards.

3 - The classifications and levels of activities to form the basis of standards.

4 - The recognition of standard cost in financial statements. This covered the following areas:

(a) How standards are used:

(i) integrated vs non-integrated standards.

(ii) immediate vs delayed variance isolations

(b) Dispostion of variances.

These selected areas are crucial in that they have been the subject of most frequent debates in publications, annual meetings of the National Association of cost Accountants (N.A.C.A. now N.A.A) and similar associations, and academic forums.

3.1 CLASSIFICATIONS OF STANDARD COSTS

Standard costs are often classified according to BASIC and CURRENT STANDARDS; where basic standards are those which are not changed unless there are important alterations in the nature or sequence of manufacturing operations; and current standards are those which undergo periodic revisions in order to reflect changes in methods and prices.

There are arguments for basic standards. Under these standards, the value of being able to compare the costs of different periods is retained, and, " ... moreover, the variances are regarded, by the staff concerned, as being of value and not something which, within a short period, are likely to be reduced by amendment of the standards".[15] Another argument has to do with the fact that it is very easy to value stocks at actual cost since both actual and standard costs are recorded. Under current standards this is only possible under the system where variance isolation is delayed. However, there are obvious disadvantages of basic standards which tend to favour current standards. First of all, for comparative purposes, standards lose their value if allowed to remain in force for a very long time as both unusual, exceptional and other changes in circumstances occur at different times which call for revisions.

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15 - J. BATTY, STANDARD COSTING, (MACDONALD & EVANS, LTD., 1966) p.34

Secondly, basic standard costing normally requires dual records which is more expensive in terms of clerical labour and costs. The argument that valuation of inventories in actual costs is facilitated by basic standards is also vulnerables - the value of actual costs for inventory valuation is a subject of debate among cost accountants and academicians. There seems to be general agreement among cost accountants, though, that, if standard costs are to be recognized in financial statements, they must be current.[16]

3.2 LEVELS OF ACTIVITY THAT FORM BASES OF STANDARDS

In establishing standards, one of the primary issues that have to be settled is that of the level of attainment that should be adopted as the basis upon which standards are set. In other words, how tight standards ought to be, or the relative ease with which they can be accomplished. Because this problem involves human behaviour it becomes as

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16 - WALTER B. MCFARLAND, "THE BASIC THEORY OF STANDARDS COSTS," Accounting Review, June 1939 P.152 and GAMBER, C.F. "THE RELATIONSHIP BETWEEN STANDARD AND ACTUAL COSTS, "NA(C) A BULLETIN, APRIL, 1946 p.677.

complex as human nature itself. "A very high standard may motivate the employees and may produce the best results. On the other hand, it may discourage them to such an extent that they will not even meet fairly modest standards of achievement."[17] The problem is further complicated by the two major objectives of standard cost systems - control of costs and valuation of inventories in the accounts - which are somewhat in conflict with each other when the decision is being made regarding the tightness of cost standards. The clash here is that cost control needs tight standards (i.e. needs costs as they should be or as they should have been), and financial accounting would require realistic standards (i.e. costs as they are). Standard costs are inevitably either a poor cost control device or a poor inventory valuation procedure.[18]

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17 - C.L. MOORE, & R.K. JAEDICKE, MANAGERIAL ACCOUNTING, 2nd ED., (U.S.A., OHIO: SOUTH-WESTERN PUBLISHING COMPANY, 1967) P.374.

18 - STEPHEN A. ZEFF, STANDARD COSTS IN FINANCIAL STATEMENTS - THEORY AND PRACTICE, in CONTEMPORARY ISSUES IN COST ACCOUNTING - a discipline in transition, 2nd ED. by H.R. ANTON & P.A. FIRMIN, (HOUGHTON MIFFLIN COMPANY, U.S.A., 1967) P.354.

With this preamble, we may turn to consider the usual classifications and give a further evaluation of each.

Standards may be broadly classified as follows:-

1 - Strict or tight standards

2.- Attainable standards, and/or

3 - Loose or lax standards.

Following the above classification, tight standards are normally called IDEAL OR PERFECTION STANDARDS. These represent activity at theoretical capacity of the plant. They result if ideal conditions obtain, for example, maximum out-put and sales, best possible prices for materials and most satisfactory rates of labour and overhead costs. Ideal standards have the advantage that they provide a target - that is, the resulting variances (unfavourable) will constantly remind managers of the perpetual need for improvement in all phases of operations. Another advantage is that they can be used for relatively long periods of time without having to be adjusted. However, these

standards are unrealistic because they make no provision for spoilage, shrinkage and/or inefficiencies of any sort. As a result, they are seldom attainable by men or machines. Their use may undermine the morale of factory employees and authorities responsible for incurring those costs. Strict standards may discourage employees who might otherwise be motivated if standards were set within their limits of capacity.[19] Again, large variations that result will include reasonable deviations from the ideal, and there is a problem of isolating these from such deviations as may be looked upon entirely as measurements of poor performance; that is, variations from good performance that should receive attention. Therefore they have rather limited usefulness for management as a gauge or yardstick.

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19 - This is testable but several studies, although not all conclusive, have given substance to this, e.g. A.C. STEDRY, ASPIRATION LEVELS, ATTITUDES, AND PERFORMANCE IN A GOAL - ORIENTED SITUATION, "INDUSTRIAL MANAGEMENT REVIEW, III, NO.2 (Spring, 1962).

Another objection to these standards has to do with inventory valuation. This aspect is further elaborated later in this chapter, but we may note that these standards are unacceptable for inventory costing since with such standards a substantial portion of the necessary cost is charged to variance accounts rather than to inventory.

It is possible to sub-divide the loose or lax standards into two groups. These groups are (i) THE EXPECTED ACTUAL COSTS and (ii) AVERAGE CAPACITY OR NORMAL CAPACITY STANDARDS. The EXPECTED ACTUAL STANDARDS resemble budgeted figures in that an attempt is made to forecast the results of future operations. The Normal capacity standards are intended to smooth the effects of changes due to business cycles and recessions on the cost of goods manufactured. They are based on future cost expectations under assumed normal economic and operating conditions. Both these standards may sometimes be useful in initially establishing standard costs, since they can be set with relative ease. The Normal

capacity based standards are more preferrable than expected actual standards because they compel management to be forward looking. This may be useful in long-run planning activities and decision-making. A common feature of both these groups of standards is that they are based on past averages adjusted for future expectations. There are several disadvantages to this.

They suffer the disadvantage that they are affected by past wastes and savings; and an analysis of variances therefrom must necessarily be done in the light of changing conditions affecting both the past averages and the present cost. This is both difficult and no useful conclusions can be drawn. Furthermore, it can be argued that even if they are based on the lowest previously attained costs, it does not mean that cost could not be reduced further - this could even be the result of freak cirmstances. Past averages represent past performances, comparatively low efficiency and, as a result, they;

"... hide and perpetuate waste that should be highlighted in order that

> management may recognize them as the result of inefficient use of material, labour, and equipment. Best past costs merit a suspicious scrutiny. They are too temperamental to be called standards as is"[20]

In respect of attainability, both standard groups are normally easily attainable and, hence, they exert relatively little presure on people for cost control. Generally speaking, people will not exert themselves further than an established standard after they have met it. They are likely to feel that they have done a satisfactory job.

In between the very tight and the loose standards we have the PRACTICAL CAPACITY STANDARD. These attempt to "squeeze-out" all inefficiencies in standards without making them unnecessarily tight, because here the level of activity represents a theoretical maximum reduced by provision for certain operating inefficiencies considered unavoidable. For example, unavoidable waste and/or delays.

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20 - S.B. HENRICI, Op. Cit. p. 29

These standards can be achieved with a reasonable effort and they provide gauges for rigorous cost control; as they provide fair goals that employees can be held responsible for meeting. And yet even with these standards, there is the possibility that they may not be high enough to stimulate the superior type of employee, or may be too high for the less skilled individual. These standards overcome the problems of the tight and loose ones and are said to be widely used. They are also fairly suitable for inventory valuation because they include all really necessary expenditures for making the product being costed.

Before we proceed to the techniques of setting these standards one thing needs to be emphasized. This is that whether a standard is strict or lenient, it has certain advantages that cannot be gained without it. So that, while the controversy continues about what level of activity should form the basis, some benefits are being gained by all those using standards.

in various sections of the factory, and the average amount of other expenses consumed in a unit of work, are obtained and used as standards. The advantage of standards of this nature is that they can be developed cheaply and rapidly. However, they are less accurate, more so because they assume that what happened in the past is what should continue to happen. Usually, these are used as forerunners to the more sophisticated because many companies/plants find it inadvisable at the first installation of standard costs to expend the time and money to make thorough investigations necessary for sophisticated ones. These are normally discarded as soon as possible in favour of more accurate ones. Statistical methods such as sampling are also used in setting standards. To the extent that these rely on actual performance data, they also suffer from the above mentioned limitations.

A second category are so-called synthetic standards (scientific standards - i.e. those developed through the use of industrial engineering techniques). These involve detailed studies of all manufacturing, administrative, selling and distribution functions and an analysis of technologica

3.3 TECHNIQUES FOR SETTING STANDARDS

The type of standards in use often has an important effect on the manner in which the standard cost can be used. This does not only refer to the degree of tightness or leniency of the standards as already discussed, but also to the method, care, and effort put into the setting of these standards.

There are varied ways of establishing standards, ranging from the pedestrian to the very sophisticated ways. The quality and usefulness of these standards depends, to some extent, on the degree of sophistication, time, effort and funds expended in setting them. The first category of standards we are going to look at are those where past experience can serve as an "accurate" guide for future behaviour. Here an average, a typical, or recent experience, or a projection of past situations which represents a reasonable expectation is used. From available records the average amount of material consumed in the production of a given amount of goods, the average amount of work performed by employees

characteristics of the work performed. Either pre-existing data is used or that obtained from special data collection routines. Sometimes test runs are used to provide a more objective method. These activities require the services of technical staff - engineers, chemists, or other experts in manufacturing techniques - who conduct a continuous review of all products for the purpose of analyzing materials costs, the amount of material required and the economy of the various processes to which it may be subjected.

In respect of labour, different methods are also possible in arriving at standard times; and depending on the type of industry involved, the detailed procedures may differ. Nonetheless, generalizations are possible. Past records may be employed but as observed earlier, past records have to be treated with great reservation and care. In respect of scientific standards, time and motion studies will answer such questions as, at standard performances, how many hours do these workers require to do the operations? At standard performance, how many workers are needed for the operation? Indeed, all these refinements are time consuming, expensive and require a certain level

of expertise.

For objectivity, it is important that scientific standards be used. With them management can obtain results which are independent of previous performances - and this is essential. This is not to suggest that those standards cost systems in operation with standards based merely on records of past experience or, when such records are lacking, on the shrewed guesses of the factory manager or his foremen are by any means entirely useless. They do provide a yardstick of a sort and in certain cases may be a necessary first step in arousing interest in the possibilities of control through scientific methods. Due to lack of motivation, or a lack of understanding of the possibilities of more thorough methods and in some cases, because in considered judgements of the controller further refinements would not pay their way, these pedestrian standard persist beyond the allowable initial period

.4 OPERATING A STANDARD COST SYSTEM

On this section, the discussion will be on accounting for standard costs - in other words, the operation of standard cost system.

First we shall deal with the question of integrating or not integrating standard costs into the books of accounts. Secondly, we shall discuss the question of variances isolation. The most controversial questions of variance disposition shall be discussed lastly.

3.4.1. INTEGRATED VERSUS NON-INTEGRATED STANDARD COSTS

Standard costs may be integrated into the accounting system of a company by recording or entering them into its general ledger or they may be used merely as an exhibit for comparative purposes only and not enter them into the ledger - a non-integrated standard cost system. Let us first consider a non-integrated standard cost system.

This method is convenient where effective control can still be achieved without prompt, highly itemized reporting. Where the work of the cost centre is less varied, the less detailed and less frequent the reporting should be. However, under this system, the benefit of clerical economy is not enjoyed/derived, as the postings to inventories is done at actual costs. Indeed the cost control benefit is derived. However, as in actual costing the problems of time consuming and tideous inventory costing [illegible] in this system.

Greater benefit of standard costs is gained by fully integrating them into the accounting system. It allows for the reduction in clerical costs by making it possible for the standard costs to be used in inventory valuation. The postings of the amounts to individual inventory cards can be eliminated and references to inventory cards to determine prices reduced. This system allows for greater cost control as it is possible to furnish prompt, highly itemized information. First-line supervisors can get variance information that indicates where and when specific corrective actions are needed. This is most helpful and appropriate for the more varied cost centre. However, even under this integrated system, there is a wide variety of general-ledger approaches to standard cost system, which have a bearing on the control value of the information generated. These need our examination. Some approaches delay the isolation of variances while others do the separation quickly.

4.2. IMMEDIATE VERSUS DELAYED VARIANCE ISOLATION

It is not necessary to review in detail accounting procedures for integrated standard costs order to discuss the idea of isolation of variances.

Afterall, they in general either conform to or are a variation of two basic patterns, commonly referred to as the PARTIAL PLAN, and the SINGLE PLAN. Under the partial plan, charges to work-in-process are made at actual cost, and credits are made at standard cost. Here variances are determined on the basis of output. In a single plan variances are recognized on the basis of cost inputs. That is, variances are isolated and analyzed from the original documents (invoices, requisitions, job tickets, and so forth) used for building up the debit to work-in-process. Hence all charges and credits to work-in-process are at standard costs.

The principal feature of the partial plan that distinguishes it from the single plan is that it delays variance isolation. This makes it impossible for the accountant to report them soon after they occur. He can only do so weeks or months later when inputs are used. Delayed price variance isolation also does not permit substantial savings in the cost of material bookings - materials inventories are not measured at standard prices. A single plan, on the contrary, makes the derivation of these benefits possible, and for these reasons preferred.

3.4.3 VARIANCE DISPOSITION

The question of variance disposition is perhaps the most debated issue in standard costing. This is so most likely because it is closely related to that of stock valuation. In fact, any controversy on how variances should be dealt with usually centers around the problem of stock valuation.

S.W. Korn[21] notes that there are two schools of thought on the question of variance disposition

1 - Some accountants feel that when a standard cost system reflects the most realistic standards which are kept up-to-date, the variances that occur are essentially caused by efficiency or inefficiency and do not represent manufacturing costs. Therefore, variances should be transferred directly to cost of goods or profit and loss.

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21 - KORN, S.W., ACCOUNTING FOR MANAGEMENT PLANNING AND DECISION MAKING (New York: WILEY & SONS, 1969) ; p. 530

The rationale behind this treatment is that the standard costs are the real costs and are not to be adjusted by variances for income statement purposes.

A major advantage, of standard costing, apart from cost control, is the savings in clerical costs. When stocks are kept at standard this advantage is obtained to the fullest extent.

2 - Others feel that variances should be allocated to work-in-process and finished goods inventories before being transferred to cost of sales. The reason here being that inventories and cost of sales should reflect actual costs as closely as possible. Further arguments to support this method are:

"1 - any credit variances taken to profit and loss account will represent an anticipation

of profit which is contrary to sound accounting principles. Stocks should therefore be valued at actual cost or market value, whichever is lower.

2 - There is no generally accepted definitions of the conditions to "adopt for setting standards. Accordingly, profit and stock valuation will vary with changes in defination. One business may set standards in anticipation of ideal conditions, whereas another may assume actual conditions. That is, those expected with existing plant,"[22]

We need to recognize here that by prorating variances to work-in-process, finished goods and cost of goods sold, the benefit of savings in clerical costs is forfieted and the benefits of using a standard cost system are limited.

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22 - J. Batty, STANDARD COSTING, 2nd Edition, (BRITAIN: MACDONALD AND EVANS LIMITED, 1966) p. 329

Accountants do not seem to disagree on one aspect - that of the treatment of minor variances. They generally feel that insignificant variances are not worth allocating and should be written directly off to cost of sales or profit and loss.

There is a third method, which adopts a compromise between the two methods. This method distinguishes between controllable and non-controllable variances - writing off the controllable variances against periodic income and allocating uncontrollable variances over cost of sales and ending inventories of work-in-process and finished goods. For example, if we took material and labour prices as dependent on exorgenious factors, (market situation, the government and trade unions), price and labour rate variances would be allocated over cost of sales and ending inventories and all other variances would be written off against periodic income. They would be presumed to represent inefficiencies (or efficiencies) that cannot be properly capitalized as inventory charges (or credits).

There appear to be advantages on the side of each method, and, in the absence of definite rules or conventions, the choice might be left to the opinion

of the accountant, who should be mindful of the various points at issue. A. MATZ, O.J. CURRY, and G.W. FRANK,[23] warn that:

> "Judgements with respect to the treatment of variances, whether variances are charged off entirely and treated as a period cost or prorated to inventories and cost of goods sold, require considerations of more than the mere arguments that only actual costs should be admitted to the financial statements. The determination of actual costs is almost impossible. In most companies the use of a normal overhead rate indicates that management has accepted this method and finds it workable.*

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* K.W. BEVAN contests that actual costs contain certain "inevitable inaccuracies" and "Mathematical abstractions". "The best that can be said about an 'actual cost,' "he writes, "is that it is an arithmetical exactitude, being the average of a number of unspecified variations." - THE ACCOUNTING PROCESSES OF STANDARD COSTING - The accountant, April 10, 1948, p. 282.

23 - A. MATZ, O.J. CURRY & G.W. FRANK, COSTING ACCOUNTING, (U.S.A.: SOUTH - WESTERN PUBLISHI COMPANY, 1967) p. 641 - 2.

> To argue that charging off variances in the period in which they arise might distort the net profit figure reveals a misunderstanding of standard costs."

Among the things that should determine how variances should be disposed of, they mention the following:

(a) Type of variance - material, labour, and factory overhead.

(b) Size of the variance

(c) Experience with standard cost,

(d) Causes of variances, e.g. incorrect standards; and

(e) The timing of the variances, e.g. an unusual variance caused by seasonal fluctuations.

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* HOWARD E. COOPER states that, "Many overlook the point that, in determining this so-called actual cost, arbitrary divisions of overhead have been made and arbitrary divisions of joint costs and by-product costs have been used. No method has ever been devised to measure the actual cost of the product of a modern industrial plant." - SOME CONTROVERSIAL PHASES OF STANDARD COST", NA(c) Bulletin, September 15, 1933 pp. 84 and 87

It is worth noting that, all the three methods normally would be acceptable to the American Institute of Certified Public Accountants, (A.I.C.P.A). In this connection, the Institute's Accounting Research Bulletin 43 comments as follows:

> "Standard costs are acceptable if adjusted at reasonable intervals to reflect current conditions so that at the balance sheet date standard costs reasonably approximate costs computed under one of recognized bases. In such cases, descriptive language should be used which will express this relationship, as, for instance, "approximate costs determined on the first-in, first -out basis," or, if it is desirable to mention standard costs, at standard costs, approximately average cost."[24]

Here in Kenya, the position of whether or not standard costs should be used for inventory valuation would be determined by either of two bodies.

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24 - "INVENTORY PRICING" (Accounting Research Bulletin 43, A I C P A, Committee on Accounting Procedure New York, 1953) p. 29

The government regulates accounting through THE COMPANIES & INCOME TAX ORDINANCES. These stipulate what may or may not be contained in financial statements for purposes of exposure as well as income tax. The INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS of Kenya is a body formed less than a year ago, with the objective of standardizing the accountancy profession and its practices in this country. Obviously, the government's position overrides that of ICPA (K) but the latter can go a long way in influencing that position. Besides, in case the government is silent the practice would follow the recommendation of the institute.

Both the government and I C P A (K) are silent as regards the booking of standard costs. In these circumstances, as in several other areas, the practice may be expected to be influenced by that of British and American bodies. The point to emphasize here is that our manufacturing companies have the latitude to use standard costs for or exclude them from inventory calculation.

CHAPTER 4

RESPONSE RATE AND FINDINGS IN RESPECT OF NUMBER OF FIRMS USING STANDARD COSTING.

4.1 RESPONSE RATE

The first round of the study was concerned with the determination of the extent of the use of standard costing technique in terms of the numbers of manufacturing firms. The purpose of this chapter is to review the findings in this respect. As stated earlier, the study limited itself to four locations - NAIROBI, MOMBASA, ELDORET, and THIKA - which constituted 75.9% of the total population (191) of manufacturing companies registered with the Bureau of statistics in Kenya, (and employing 100 or more people).

A total of 145 firms was surveyed. From these, 104 (72%) responded. That is to say, they answered that they were either using or not using standard costing. Of the 41 non-respondents, 2 just refused to cooperate - they just did not want to hear anything about the research. No reasons are available for the other 39 and it can only be assumed that they either regarded the research as unimportant,

a waste of time, or pressure of work simply made it difficult for them to respond. Table 4.1 gives a classification by LOCATION of the firms using standard costs, firms not using standard costs, non-responses, and those uncooperative.

TABLE 4.1

SURVEYED COMPANIES CLASSIFIED BY LOCATION

LOCATION	NUMBER USING STANDARD COSTS	NUMBER NOT USING STD. COSTS	NON - RESPONDENTS	TOTAL SURVEYED
1. NAIROBI	18	57	27	102
2. MOMBASA	3	17	9	29
3. ELDORET	1	3	4	8
4. THIKA	1	4	1	6
TOTAL	23	81	41	145
%	15.9	55.9	28.3	100

Table 4.2 shows total responses as a percentage of the total number surveyed, again broken down into locations.

TABLE 4.2

RESPONSES AS % OF TOTAL SURVEYED

LOCATION	TOTAL RESPONSES	TOTAL SURVEYED	% OF TOTAL RESPONSE OVER TOTAL SURVEYED
1. NAIROBI	75	102	70.3
2. MOMBASA	20	29	69.0
3. ELDORET	4	8	50.0
4. THIKA	5	6	83.3
TOTAL	104	145	72%

All in all, the responses were fairly satisfactory, with the exception of Eldoret which reported the lowest rate of 50%. Part of the explanation for Eldoret being the lowest could be that the firms there are not so used to being approached on research matters as those in the other three locations. An overall 72% response was, however, considered quite satisfactory.

4.2 FINDINGS

One significant characteristic of the 104 responding manufacturing companies is that they are fairly young. Their mean age is 22.48 years (Standard deviation 14.44). The range is from 6 years to 78 years. Table 4.3 below classifies the responding companies according to their ages. From the cumulative frequency of this table, 48% of the companies fall below this (mean) age. (See appendix III)

TABLE 4.3

AGES OF RESPONDING (104) COMPANIES

YEAR OF INCORPORATION	RESPONSES		TOTAL
	YES	NO	
1901 - 1910	-	1	1
1911 - 1920	1	1	2
1921 - 1930	1	2	3
1931 - 1940	-	7	7
1941 - 1950	4	5	9
1951 - 1960	7	25	32
1961 - 1970	9	25	34
1971 - 1980	1	15	16
TOTAL	23	81	104

The information in Table 4.3 is again presented graphically in figure IV. The negatively skewed age distribution shows a concentration in the years between 1950 - 1980. This indicates that the influx of manufacturing industries seems to have started only about 30 years ago.

While not conclusive on its own, the relative young nature of our industrial sector may support the arguments about lack of competition. It may also explain the lack of career industrial workers. Competition acts as an inducement, while the availability of career industrial workers facilitates the operation of effective cost control tools.

Of the 104 firms that responded, only 23 (22.1%) use standard costs. These are classified according to location in Table 4.4 below:

TABLE 4.4

RESPONSES CLASSIFIED ACCORDING TO LOCATION

LOCATION	RESPONSES		
	YES*	NO*	TOTAL
1. NAIROBI	18	57	75
2. MOMBASA	3	17	20
3. ELDORET	1	3	4
4. THIKA	1	4	5
TOTAL	23	81	104

* YES = Yes, companies use standard costing
NO = No, companies do not use standard costing.

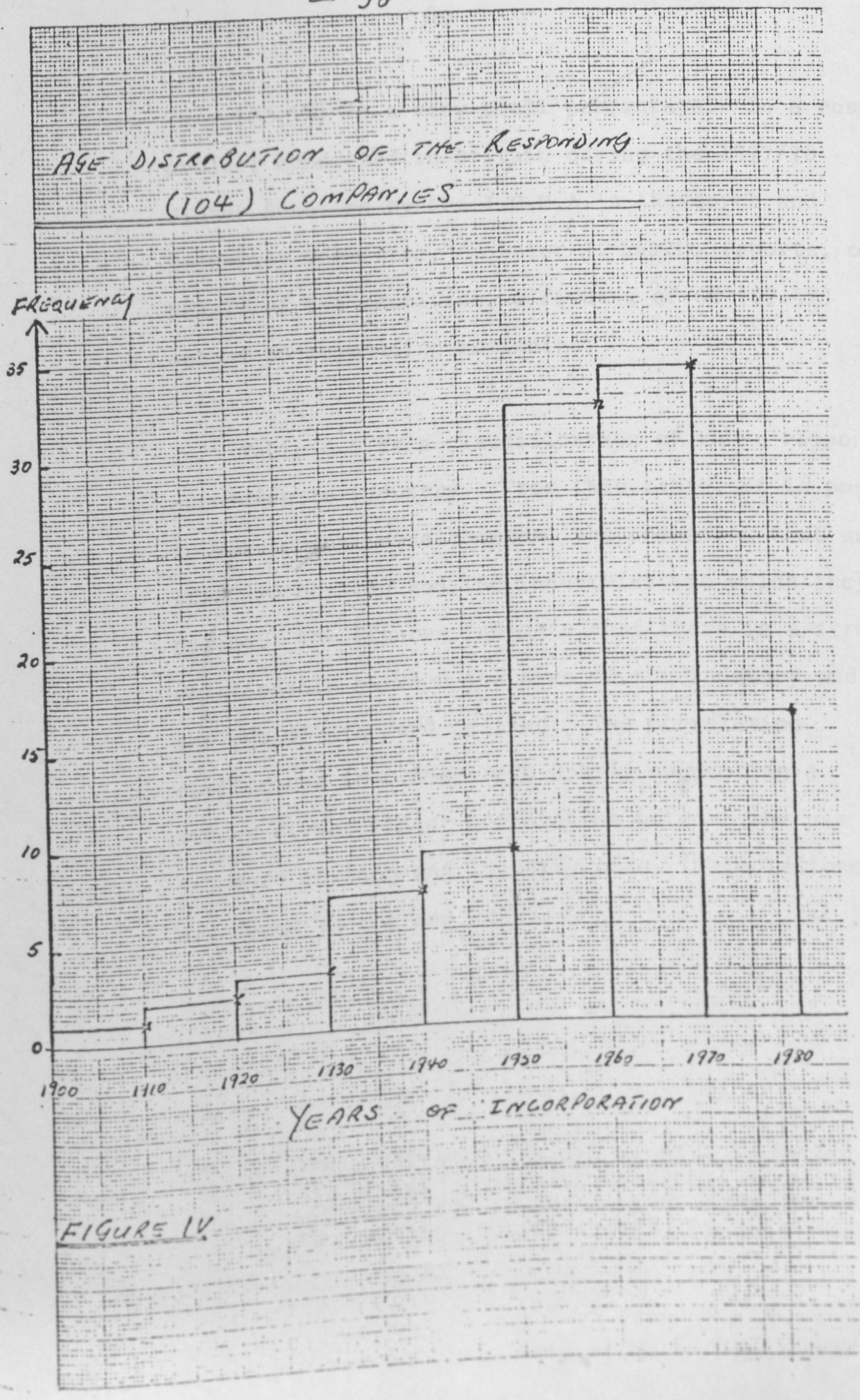
AGE DISTRIBUTION OF THE RESPONDING (104) COMPANIES
FREQUENCY
35
30
25
20
15
10
5
0
1900
1910
1920
1930
1940
1950
1960
1970
1980
YEARS OF INCORPORATION

FIGURE IV.

This (22.1%) is a very small percentage. In a research project conducted in Britain during the 1977/78 Winter Sessions by the I.C.M.A.'s Research and Technical Committee,[25] Peter J. LASZLO reports, on behalf of the committee, a finding of 60 (62.5%) out of 96 responding companies.

Table 4.5 is a classification of these responses according to industry. From this table, it is possible to make comparisons between the companies that use standard costing and the industries to which they belong. The figures indicate that there is a strong relationship between the size of the industry and the use of standard costing. The correlation coefficient is 0.8582 (r=0.8582), suggesting a strong direct linear correlation between the use of standard costing and industry size. (Calculations are found in the appendix - IV).

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25 - "How VARIABLE ARE DIRECT WAGES?" by Peter J. LASZLO reporting on behalf of I.C.M.A.'s RESEARCH AND TECHNICAL COMMITTEE, (Management Accounting, October, 1978, pp 386 - 387)

RESPONSES CLASSIFIED ACCORDING TO INDUSTRY

TABLE 4.5

	INDUSTRY	RESPONSES		TOTAL
		YES	NO	
1	FOOD (Meat, Dairy, Fruits & Vegetables, Flour, Sugar & Tea)	3	12	15
2	BEVERAGES : Distilling, rectifying & Blending spirits	3	-	3
3	TOBACCO	1	-	1
4	TEXTILES	4	13	17
5	WOOD & CORK PRODUCTS, including furniture and fixtures	1	6	7
6	LEATHER & LEATHER PRODUCTS	-	1	1
7	PAPER & PAPER PRODUCTS	1	7	8
8	INDUSTRIAL CHEMICALS, FERTILIZERS, PESTICIDES, PERFUMES	2	5	7
9	PETROLEUM REFINE	2	2	4
10	PLASTIC, POTTERY CHINA, EARTHWARE, GLASS, & OTHER NON-METALICS	-	6	6
11	CEMENT, LIME, & PLASTER	-	3	3
12	BASIC METALIC, & FABRICATED METAL PRODUCTS, & MACHINERY AND EQUP.	6	24	30
13	HOUSEHOLD & INDUSTRIAL BRUSHES, PAINTING, HANDICRAFT	-	2	2
	T O T A L	23	81	104

Although the size of the sample does not allow generalizations, this finding is significant. We are arguing that because of lack of stiff competition standard costing will be used to little extent. Put in another way, competition will act as an inducement for the employment of more efficient and effective cost control tools (in this case standard costing.) That the use of standard costs is found to grow with the size of industry supports this hypothesis because as industry grows so does competition.

The data were further classified according to company sizes. This is in Table 4.6 below. The size classifications used were obtained from the DIRCTORY OF INDUSTRIES, which is according to the number of employees. It was felt that this was a useful means of size-classification for this purpose. The following is the adopted classification:

SIZE CLASS CODE	NO. OF EMPLOYEES
D	100 - 199
E	200 - 499
F	Over 500

TABLE 4.6

CLASSIFICATION OF RESPONSES BY COMPANY SIZE

COMPANY SIZE CODE	RESPONSES		TOTAL
	YES*	NO*	
D	9	38	47
E	5	30	35
F	9	13	22
	23	81	104

* YES = No. of companies that use standard costs

NO = No. of companies that do not use Std. costs

NOTE: 1) - H_o : Results are independent of size

H_1 : Results are not independent of size

With two degrees of freedom, the computed chi-square (X^2 = 6.007) is greater than the table value (X^2 = 5.991) at the 5 per cent level. The NULL hypothesis is therefore rejected, and we conclude that the results are NOT independent of size.

2 - The percentage of positive (yes) responses over the total is as follows:

D = 19%

E = 14%

F = 41%

The findings indicate that there is an interdependence between the responses and company size. This explains why only 19% of the D (small) size companies uses standard costing and 41% of the (big) F group (size) use the technique.

This finding is understandable because as a company grows and the size of its labour force increases, it becomes more difficult for a manager to know what each individual is doing. Supervision is not only difficult, but also unreliable. At the same time, the wages of extra people reduce profits unless they are accompanied by the generation of equal or more revenue through increased production. This in itself provides a motivation for the substitution of scientific more effective methods of control for rule - of - thumb methods of the past.

For the organization's effective management, there is an increasing dependence on formal control systems.

This does not negate but, rather, supports our hypothesis that the technique will not be found to be applied to a great extent due to lack of competition. Competition compels businesses to grow if they are to survive. A stagnant company will eventually be swallowed-up by the bigger ones - hence "grow or perish."

That the use of the technique is found to be dependent on size tallies with the common belief or supposition that standard costing is applicable only to large businesses. This notion is not shared by some cost accountants,[26] who argue that if the technique can be applied to a small department of a big company, it can be applied equally well to a small business. The reseacher shares this second view and in our case, our small business is much bigger than most departments of big businesses - Our smallest firm here employs at least 300 people.

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26 - for example, J. BATTY in "MANAGEMENT TECHNIQUES IN THE SMALL ENTERPRISE," p. 66, published by BRITISH INSTITUTE OF MANAGEMENT

In this instance, therefore, this finding may also be associated with a lack of knowledge, which takes the form of managements not knowing that the technique can be applied, or the benefits offered by it as against the disadvantages of their present practices.

This study would be deficient if it merely went as far as telling us that 23 out of 104 manufacturing companies use standard costing. We might be accused of being so slavishly addicted to the idea that we find fault even with those companies that could not possibly apply the technique without doing more damage than good. A useful contribution, therefore, is finding out why the 81 of the 104 companies do not use what we consider so vital and generally accepted cost control tool. The foregoing quantitative analysis gives part of the explanation. In the following discussion, some qualitative explanations are examined.

4.3 QUALITATIVE REASONS FOR NOT USING STANDARD COSTS

The qualitative reasons for not using standard costing are those that managements of the companies concerned gave. These were obtained in two different ways.

The first way was through a voluntary response. In replying to the letter asking them whether or not they used standard costs, 10 companies volunteered to say why they were not using the technique, although the letter did not specifically require them to do so. A second way was by personally asking some companies why they were not using standard costs. It will be remembered that apart from using a letter for this first round of the research, it became necessary to elicit responses by telephone and personal visits to some companies - This opportunity was also used in trying to get the reasons why they were not using standard costs. Responses were again obtained from ten (10) companies. So that the qualitative data was obtained from 20 of the 81 companies that do not use standard costing.

3.1 INFLATION

Four respondents gave the reason for not using standard costing as the escalation of input prices. They felt that because prices are ever rising, there is little necessity for the system or that they cannot use it

This argument offers an opportunity for a very lengthy discussion; however, it is not possible within this thesis to do more than touch upon the general principles involved in order to show that inflation does not prevent the use of standards. In fact, it may be the more reason why they should be used.

A standard cost has two dimensions ; the quantity standard and the price standard. Price standard may be based on recent - past average prices, or expected prices. If for some reasons a business is reluctant to anticipate price trends, it may rely on prices in effect at the time the standards are established, as well as on announced future price changes. Quantity standards may be set using past performance data, statistical techniques, test runs etc. - A brief review of these has been done in a previous chapter. The price / rate variance will result if actual price differs from the standard set. In the case of unfavourable price / rate variance(s), an investigation will show whether the deviation is due to poor performance of the procurement /

purchasing officer (- for labour it will be the recruitment or personnel officer), or such exorgenous factors as unanticipated price increases, for which no individual within the company can be held responsible. Even during periods of frequent price changes control of these departments is still possible, (although it may be difficult), by making an effort to distinguish between that margin which would have been anticipated by the officer when revising the standards and that which could not have possibly been foreseen. At least some kind of norm will still be found to be more valuable than having none at all. Obviously, frequent price changes will necessitate a much more frequent revision of the price standard which costs some extra money, and which reduces the value and benefits of the standard price or rate variances; but that is only a small aspects of cost control.

Another, and perhaps most important, aspect of control is in production processes where scarce resources are being converted into finished goods.

Here, the control process takes the form of comparing materials used and / or time spent with those that should have been used and an investigation carried out in order to determine the causes of deviations, and an action taken to pre-empt a repetition of the controllable factors. A good part of the control effort should be directed to these quantities rather than prices because this is an area more prone to inefficiencies than any other. Wastes and inefficiencies here have a far more damaging effect than the latter. Inefficiencies in the use of materials and time can lead to a very high increase in costs, and it is even more difficult to control because of the numbers of people that may be involved and the intricacies of the manufacturing process. A special technique for control is needed and it is possible to install standard costs in this area even in periods of hyper-inflation, which we have not had in Kenya.

Therefore, frequent price hikes, although they present special problems, are not a hindrance to the use of standard costing. The problems are

not insurmountable and the technique can be used to the full advantage. We may go further to argue that part of price hikes can, in fact, be blamed on inefficiencies and lack of control by the manufacturing concerns themselves or that these factors fan the flames of inflation. Increasing prices lead to demand for more wages, more wages lead to increased costs, and the costs push up prices and the vicious circle continues.

The best that can be said about this reason that standard costing is not being used on account of inflation is that it reveals certain limitations or inadequecies in the knowledge of standard costing, and what it involves. Lack of knowledge may take at least two forms:

(a) not seeing the limitations or defects of methods in operations, and

(b) not seeing benefits of alternative systems or methods.

In a competitive situation, the liberty to raise prices does not exist and rising costs jeopardize the objective of making profit.

In that situation, firms are compelled to re-examine existing systems for defects or alternative ones sought. Where such a motivation (or inducement) lacks or does not exist, such an effort will not be made.

4.3.2. LACK OF PERSONNEL / MANPOWER / EXPERTISE

A second reason that featured prominently is that of lack of skilled manpower, either to instal or man the standard costing system. Companies are having problems with recruiting accountants, as there is just not enough supply to match the growing demand for accountants or accounting staff.* Because of the shortage, companies have the problem of retaining even the bare minimum of accountants that they have. With some companies creating attractive positions in an effort to fight for

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* According to the Minister of State in the Office of the President, Mr. Nicholas Biwott, to Parliament, there are 10,177 and 792 expatriates in private and public sectors respectively. Of these 432 are accountants, 2947 general managers, 375 technical managers, and 69 advicers. THE STANDARD, Wed., September 24, 1980.

the few accountants that there are, accountants are even on the go for better opportunities elsewhere. Therefore, some companies feel that installing such a system would not be wise because there would either be no people to man it or the problem of recruitment would be compounded. The nature of the problem is such that some companies do not even have a cost accounting office/unit as such - a skeletal costing work is done by one or two people in the normal financial accounting unit/ department.

One respondent went further to explain that the problem of lack of manpower has to do with the fact that Kenya is not an industrial country. "Heavy industrialization is only as old as independence and for that reason there has not been enough time to develop career industrial workers."* In the first place therefore, he explained/elaborated, the type of people you get

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* According to Figure IV (page 58) "heavy" industrialization is about 30 years old (about twice as old as independence). However, the respondent's argument still hold because it takes a much longer time to produce enough career industrial workers.

for factory work are by and large people who enter a factory for the first time. That in itself creates the problem of acclimatization. Secondly, the general level of education is so low that when you would expect a high school leaver to make an industrial worker with quicker and better understanding, he is attracted and goes to work in the administration as a clerk of some sort. (In developed countries, where there are many educated people, high school leavers will not get as high category jobs as they do in this and other developing countries. So that you have people with a much better education working in factories). So that in the final analysis you end up with people of the lowest, if any, education working in the factory. These people take a long time to teach how to handle equipment, and learn the procedures. A lot of time and effort is expended in acquainting and training them. The process is a continuous and perpetual one as trained ones are attracted out by other companies. The respondent argues that this makes it impossible to install such advanced techniques as standard costing, as it would not only complicate the situation but would also bring in new headaches.

In order to circumvent this problem, some companies encourage further learning by their accounting staff. They encourage them to enrol with such accounting bodies as the ICMA, ACCA, and CPA(K). Some go so far as giving financial assistance to enable them to proceed in their studies. Special training programmes are also organized by some companies and on-the-job training for lower echelons of the accounting and factory staff.

There is a paradox here, regarding the argument about lack of expertise - shortage of skilled (especially accounting) manpower and/or lack of specialized personnel. While firms are complaining about lack of skilled accounting staff, the Faculty of Commerce (both staff and students) are worried about the numbers of student graduates being produced each year and denied the opportunity by the business sector to translate their academic knowledge into meaningful, useful, and productive service. First, the graduates have to struggle to get positions.

Secondly, there is a prevalent complaint that, those who are lucky to get jobs are relegated to junior jobs such as those of accounting clerks and salesmanship, with the result that the recruit loses whatever he had learned within a shorttime. This also leads to the individual being frustrated as a result of which his performance deteriorates, giving credence to the claim by some that the calibre of the graduates is poor.)

4.3.3. STANDARD COSTS NOT USED BECAUSE THERE IS NO NEED

There were those respondents that did not use standard costs because they felt that they did not need to. These may be divided into: (a) those that felt that their companies did not need the system as such or that the system would overload the company; and (b) those who felt that the nature of their production and costing systems is such that installing the system would be more harmful than having none at all. Let us look at the former group first.

a)- Two respondents felt that they did not need the system because their companies were too small to need standards. One of them went further to say that supervision is by direct management and emphasis is therefore on trained supervision. We can argue that even in this case, there has to be a yardstick against which we can compare performances and be able to say whether performance was good or bad without relying on the subjective whims of a particular manager. We need objective data and standards give us a quantitatively objective data for the purpose. As has already been discussed, the argument of the smallness of the firm does not hold and, in this case, a company with a minimum of 200 employees is not much small anyway.

That standard costing is applicable only to large businesses and that it is an expensive technique was expressed by the other respondent. The following words need no rephrasing:

> "Setting standards involves engineering studies; long observations and test runs by knowledgeable people have to be carried out. All these we cannot afford."

No doubt this respondent is conversant with standard costing and, he probably has worked with sophisticated standards before. However, he is not aware of one thing: that standards range from the pedestrian and simple estimates based on past experiences and/or performances, to the very elaborate and complex systems based on engineering techniques, time and motion studies etc. Obviously the latter are more accurate, and accord better and more useful information than the former standards. But the former, too, yield certain benefits that cannot be found without standards. For a beginning or a small company, the installation of sophisticated system may not be advisable. First of all the expense involved may be higher than it can afford. Secondly it is not possible or easy to design a system that will suit the company at first go - several adjustments will or may have to be made through a few years after installation. It is therefore risky and unwise or inadvisable to stake a lot of resources at first go. It is advisable that a simple system be employed by small and starting firms and later improvements and sophistications can be brought in.

So that the question or problem of expense and overloading may not arise.

b) - In the second camp were two companies that felt that they did not need standard costs. Both felt that the jobbing nature of their production did not permit the employment of the technique. Indeed, standard costs may prove to be somewhat impracticable when a company performs many small different jobs because different materials and times will be spent on each individual job. If standards are used, it will be necessary to set-up standards as many as there are different jobs as each job will be different from the other. The resources that may be required to carry-out this procedure may well exceed the benefits. So that the respondents' argument may be tenable. The size of our sample has the limitation that we cannot attach statistical significance to these data. But it is worth noting that

it is only 2 out of the 20 responding companies that did not use the technique on the tenable argument of the difficulty imposed by the production and costing system.

Even in a job order system, however, it is still possible to exercise control in a manner similar to (though not as efficiently as) standard costing system. This can be done by using estimates which in any case will have been used for establishing job prices. It was not possible to investigate these two companies and see whether indeed their jobbing system would not permit even the crudest form of standard costing or whether at least pricing estimates were not being used as just explained above.

Another reason given by some companies is very interesting for this study. It is that "... management think or feel that they are getting enough information and the company is making enough profits, so why bother chasing a few pennies here and there."

This particular chief accountant had personally tried to talk management into adopting standard costs and had been given this argument. A similar argument was raised by a financial controller of another company who felt that a budgetary control system was giving them all they needed. (Their budgets are built on the basis of forecasted expenditures i.e. expected costs and there is no break - down into unit costs). He was of the opinion that standard costs will just bring too much work: "Our system is satisfactory ... How do we know that after all that work we will not come to the same price as we are getting with our present methods of pricing?" At least two inferences can be made from this second statement:

(a) - cost control is not the worry or the aim as far as this company is concerned. Hence the purpose of their cost accounting system(s) is purely price determination, and/or

b - the standard cost accounting technique is not known or has never been heard of in this company, let alone its various advantages.

Standard costing can be used for both cost ascertainment and cost control. One thing that is clear here is that, for both companies, there is no motivation for much more rigorous control than what their present methods can achieve.

A good number of the respondents, if not all, who did not use standards relied on budgets for control purposes. Again, generalizations are limited by the size of the sample but this gives enough indication that there is lack of motivation for rigorous cost control and, lack of expertise may also be held responsible for this inertia. In chapter three reference has been made to the indispensability of standard costs for an effective budgetary control system, and enough stress laid on the limitations of budgetary control not based

on standards. Suffice it to say that such a system would necessarily relay on past actual costs which have the danger of comparing a cost full of (past) inefficiencies with another (present). It is encouraging to note that at least three of the twenty responding companies, although not using standard costs presently, are thinking of installing them in the very near future.

The next chapter brings us to the second round of the study. This was concerned with determining the extent to which standard costs are used in terms of the advancements made by the companies in the adoption of the technique. That is, how far has practical applications in Kenya kept pace with the theoretical developments and advancements of standard costing technique.

CHAPTER 5

FINDINGS OF SECOND PHASE OF THE STUDY

5.0 INTRODUCTION

In trying to measure the extent to which the technique has been adopted by individual companies, several areas were selected for investigation. These areas are often a subject of much debate in professional and academic forums, and it was hoped that contrasting a particular company's choice of a procedure with the reasons for such a choice would reveal the extent of its grasp of the principles underlying and its awareness of the on going debate and, the available alternatives.

In a competitive situation, companies seek optimal alternatives. They will use a standard cost system that they think will meet and enhance their objectives. We should notice that first competition should be there to give the necessary impetus or motivation.

Without it, companies can be expected to merely make satisficing decisions - only a skeletal or rudimentary system of control will be operated. They will not see the necessity to invest in more elaborate systems if their objective (mainly of making profit) is not jeopardized. Another case of satisficing behaviour may not be linked directly with competition as such, although to some extent or indirectly it may be responsible. It may be due to the fact that:

(a) defects in the operating system are not known or seen, and/or that

(b) alternatives systems are not known or their benefits are not seen.

A third case is where there is need to invest in an elaborate system and knowledge exists about the appropriate system but the requisite resources to implement the system are lacking. It is against this background and in this light that this second part of the study proceeded and the findings reviewed. The selected areas were categorized in chapter 3, and the findings will be discussed along these lines.

It is clear from the previous chapter that only 23 out of 104 companies used standard costing. Because of small size of the sample or number of companies that qualified for this second part of the study, the intention (originally) was to cover the entire population. For various reasons, this was not possible and only 70% (16 companies) were studied (interviewed). This was considered fairly representative. Table 5.1. shows the total number of respondents against the total that use the technique classified according to the locations.

TABLE 5.1

THE TOTAL NUMBER OF INTERVIEWED COMPANIES AGAINST THE TOTAL NUMBER THAT USE STANDARD COSTS

LOCATION	TOTAL NO. INTERVIEWED	TOTAL NO. USING STD. COSTING	PERCENTAGE INTERVIEWED
NAIROBI	15	18	83.30%
MOMBASA	1	3	33.33%
ELDORET	-	1	-
THIKA	-	1	-
TOTAL	16	23	69.56%

Eldoret and Thika had only one company each that used the technique. Because of the distances involved it was highly uneconomical to visit these places for just two companies (47 Km to Thika and 194 Km to Eldoret from Nairobi). In any case, it was felt that their exclusion would not be of much (if any) significance to the general findings: Out of three in Mombasa, only one was interviewed. The other one claimed to be too busy and another was outright unwilling to receive the researcher although they did agree that they use standard costs. (Mombasa is another area where a lot of responses for the first phase of the study were obtained by telephone and personal visits so that the researcher could not have known prior to the visit there of the very low percentage of use resulting in only one interview). In Nairobi, two claimed to be busy, while one was just reluctant to receive the researcher even after assurances that the information where they required would be treated confidentially and in any case no company name would be published.

Table 5.2 classifies the interviewed companies according to industry and ownership. Important

here is the information that, first, our original list of industries (in chapter 4) is cut from 13 to 9 when no companies from LEATHER & LEATHER PRODUCTS; CEMENT, LIME, & PLASTER; PLASTIC, POTTERY etc. and, HOUSEHOLD & INDUSTRIAL ITEMS INDUSTRIES are found to use standard costs. Second, only 19% of the 16 companies is fully locally owned and the rest of the 81% is shared by total foreign ownership and partly foreign, partly local ownership. Local ownership here being either individuals or INDUSTRIAL AND COMMERCIAL DEVELOPMENT CORPORATION (ICDC). (6 companies are entirely foreign owned and 7 are partly localized.

TABLE 5.2

CLASSIFICATION OF OWNERSHIP BY INDUSTRY

INDUSTRY	OWNERSHIP			
	LOCALLY OWNED	FOREIGN OWNED	PARTLY OWNED	TOTAL
1. FOOD	2	-	1	3
2. BEVERAGES	-	2	-	2
3. TOBACCO	-	-	1	1
4. TEXTILES	1	-	1	2
5. WOOD & CORK PRODUCTS	-	1	-	1
6. PAPER & PAPER PRODUCTS	-	-	1	1
7. INDUSTRIAL CHEMICAL	-	2	-	2
8. PETROLEUM REFINE	-	-	2	2
9. BASIC METALIC & FABRICATED METAL PRODUCTS INCLUDING MACHINERY & EQUIPMENT	-	1	1	2
TOTAL	3	6	7	16
PERCENTAGE	19%	37%	44%	100%

NOTE: The results show no relationship between ownership and industry. (The X^2 computed from this table at 16 degrees of freedom is 20.641 which is significant at 5 percent confidence level.. The Chi - square table value is 26.296).

5.1 COMPARISON BETWEEN AGES OF THE COMPANIES AND THE AGE OF STANDARD COSTING IN THEM

The time lapse between the inception of the companies and the establishment or installation of the standard costs systems present an interesting feature to the findings. (For reasons already mentioned, 16 out of 23 companies that used standard costing were interviewed. For purposes of comparing the ages of the interviewed companies with the length of time that they had used the technique, only 14 companies were considered. This was because information regarding when the other two had started using the technique was not available).

The average (mean) age of the 14 companies is 20.36 years (standard deviation is 16.15, Range = 6 - 60 years). The average length of time for which the technique has been used in these companies is 8.71 years (standard deviation = 4.68, Range 1 -15 years) One thing that becomes clear here is that standard costing is fairly new in Kenya. The average time lapse between the inception of the companies and their introduction of the technique is 11.6 years (Range = 0 - 48 years). A possible explanation

for this delay is that competition, being a function of industrial growth, was not as strong in earlier years as in the later ones. And indeed, the difference between the ages of the companies and the ages of their standard costs is much greater the older the companies. For example, for the companies that are aged 20 years and below the average difference is 4.9 years, while for those above 20 years of age the average difference is 36.3 years. This ties well with and supports the findings in connection with the correlation between industry size and the use of standard costing (in chapter 4). (See appendix V).

5.2 EXTENT OF STANDARDIZATION OF FACTOR INPUTS

The maximum control value of standard costing is derived if a company has standards for all its products and for all the factor inputs - direct materials, direct labour, and factory overhead costs. It makes sense therefore, that this study should try and find out to what extent this has been achieved.

The study revealed varied developments in this area. All the sixteen respondents had standards for all their products. This signifies a great achievement when one considers that the number of different products per company ranges from 2 to 13 product groups. (In product groups there are several product items for several companies, as many as up to 180). However, not similar achievements have been made in respect of having standard costs for factor inputs.

Only eight companies (50%) had standard costs for direct material, direct labour, and manufacturing overhead. The other 50%

had standards for direct material only, direct material and direct labour only, direct material and overhead only, or direct labour and overhead only. Table 5.3. below presents this information.

TABLE 5.3

EXTENT OF STANDARDIZATION OF INPUTS

INPUTS FOR WHICH THERE ARE STANDARD COSTS	NUMBER OF COMPANIES	%
1. DIRECT MATERIALS, DIRECT LABOUR & MANUFACT. OVERHEAD	8	50
2. DIRECT MATERIAL & DIRECT LABOUR ONLY	2	12.50
3. DIRECT MATERIAL & MANUFACT. OVERHEAD ONLY	1	6.25
4. DIRECT LABOUR & OVERHEAD ONLY	1	6.25
5. DIRECT MATERIAL ONLY	4	25.00
TOTAL	16	100

For the other 50% that does not have standard costs for all the three input factors (DM, DL, & O/H)

but have for either one or two of them some form of application rate was used for those factors that do not have standard costs. Of course, this has a much more limited control value than standard costs, and it was necessary to find out why respondents decided to limit their use of the standard costs.

Before we come to the reasons given by the respondents concerned certain inferences can be made from the data. Half of the eight respondents that have standards for all factors are the size F (over 500 employees) companies. There are two size E(200 - 499 employees) in this category of those having standards for all factors. This shows a tendency for more standardization the bigger the company; which is consistent with the view that there is greater need for control and more accurate data the larger the organization. According to the findings, the extent of standardization seems also to go with the method of costing; with companies that use process dominating both in the numbers of firms that use standard costs generally (whether for all factors or not), and those that have standards for all factor inputs. Table 5.4 depicts and clarifies these.

Methods of costing ranked in order of use are:

Process costing	8
Batch costing	6
Combined Job/Process	3
Job costing	2
TOTAL	19

One company used process; batch; and, combined job/process costing methods. These account for the excessive total of nineteen (19) costing methods used over a total number of sixteen companies.

The dominance of the process costing companies may be attributable to the fact that it is easier and cheaper to install and operate standard costs than under job-order costing in special order industries. In the latter there is a wide variety of products of a non-standard nature which in most cases makes the cost of setting the standards prohibitive and out of proportion to the value received from their use. There is the

TABLE 5.4

EXTENT OF STANDARDIZATION AGAINST COSTING METHODS

COSTING METHODS	EXTENT OF USE OF STANDARD COSTS					
	DM.,DL., & MFG OVERHEAD	DR.MATERIAL & DR.LABOUR ONLY	DIR.MATERIAL & OVERHEAD ONLY	DIRECT MATERIAL ONLY	DIRECT LABOUR AND OVERHEAD ONLY	TOTAL
1. Process costing	5	1	-	2	-	8
2. Batch costing	3	-	1	2	-	6
3. Combined Job/Process	1	2	-	-	-	3
4. Job costing	-	1	-	-	1	2
T O T A L	9	4	1	4	1	19

need for constant revisions and formulations to suit the many production and product changes. Also the accumulation of actual costs for production orders is much more frequent, (mostly on daily or so basis) which causes or leads to further demands on resources. On the contrary, in the process cost system the general tendency is that the products are uniform and standardized and it is not only easier to set standards but it is also inexpensive as no constant and frequent revisions are necessary. Batch costing system is one of 'HYBRID SYSTEMS' found in some businesses and which fall between the two extremes.

The eight respondents, who did not use standard costs to the full extent (did not have them for all factor inputs - direct material, direct labour, and manufacturing overhead) but limited them to either one or two, were asked to give reasons for not doing so. It will have been observed from table 5.3 that four respondents confined their standards to direct materials only out of a total of fifteen that use them for direct materials.

Limiting standards this way can be expected where direct materials form a very large part of the total costs such that minor inefficiencies in their use would have a big negative impact on the profits. Conversely, labour and overhead must constitute such a small percentage of the total cost that (minor) inefficiencies in their use would not increase costs significantly. This should not be taken to imply that standards are useless in such a situation, for they would still help to identify and stop even those minor wastes which would otherwise find their way into the product costs. We need also to realize that this also limits the extent to which the benefit of savings in clerical costs can be derived. The four respondents gave different reasons for their procedure.

Two gave the reason(s) that that is the way they operate, that is the way they like it, it is convenient that way, and that it is not necessary to establish standards for direct labour and manufacturing overhead. A lot can be said about these answers. To say that it is not necessary to maximise or optimize the use of a control tool implies that a company is confident that it can get away with a merely satisficing decision or behaviour.

That is, it can still make its profits anyway. Associated with this may be a lack of knowledge of other benefits that go with putting such a tool to optimum use. If these benefits can be obtained without compromising the original purpose for which the system was adopted, rationality dictates that such an advantage would be taken.

One comapny argued that labour and overhead constituted a very very small percentage (actually 2% for labour) of the total cost. Where the aim of standard costs is solely for cost control, this argument is tenable. The impact of inefficiencies that enter direct labour and overhead unchecked will have a small impact on the total cost. But as said earlier, there are other benefits that can be derived by using standard costs to the fullest extent. It is encouraging to note that in this particular company arrangements are already underway to install standards for direct labour and overhead even though they constitute such a small percentage of the total cost.

While it would have been expected that companies using standards for direct material, and direct labour would also use them for factory overhead, two were found not to be doing this. Instead, they were using predetermined factory overhead rate. Their reasons for not using standard costs for overhead were not convincing. It is not sufficient to argue that "... it is the way we do it". It does not tell us that the method used is the best for the company. Standards would probably yield better results.

One thing that can be said is that standard overhead rate, generally speaking will be useful for product costing and planning rather than management control. This is because it includes a mixture of fixed overhead costs, which will be incurred by the firm regardless of the level of productive output, variable and semi-variable costs. The responsibility for the fixed costs does not rest with operational but with top management who are responsible not only for general policy, but also policy regarding sales and inventory levels. In order to convert standard factory - overhead into a control tool, a lot of work is involved and this is perhaps what they were trying to avoid.

The procedure involves separating the fixed, variable, and semi-variable elements and establishing dual rates; one for the fixed and another for variable factory overhead. As a business grows, the overhead portion of the costs grows and, in some cases (especially highly automated firms) it constitutes a greater percentage. In that case there would exist an even greater need for rigorously controlling this portion of the total costs. So that the dependence on predetermined overhead rates may not meet this need and hence may be inadvisable. Of a total of 6 (six) respondents that use predetermined rates instead of standard overhead, two employ over 500 people; and these are considered fairly big enough to shift from predetermined rates to standard overhead.

5.3 MAIN PURPOSES FOR USING STANDARD COSTS

The nature of a standard cost - whether tight or lenient - and the way it is going to be applied depends mainly on what management wants to achieve by it. For this reason, respondents were asked to say what their main objective or objectives were for using standard costs. They were also asked whether or not there were any other uses to which they would like to put their standard cost system but for some reason(s) they were unable to do so. On this particular question, the aim was to try and find out whether managements were aware of the various uses to which the system could be put and/or whether indeed the knowledge existed but full advantage could not be taken for some reasons. If the answer was positive, they were asked to mention these uses. (See question 5(a), (b) & (c) of the questionnaire. Table 5.5 is a presentation of the responses regarding the objectives for using standard costs.

The table is very simple and self-explanatory. Worth noting however, is

the particularly low number of respondents that aim at simplifying book keeping (and/or reducing clerical costs). Only 12.5% has this as an objective also. All the respondents also answered that they did not have any other uses to which they (their firms) wanted to put their systems but were unable for some other reasons.

TABLE 5.5

MAIN PURPOSES FOR USING STANDARD COSTS

	PURPOSES	RESPONSES	%
(a)	As a help in budgeting	15	93.75%
(b)	As a means of exercising control	16	100.00
(c	Simplify book-keeping	2	12.50
(d)	Pricing	14	87.50
(e)	To put consistent Value on technical variances	2	12.50

Further discussions with the respondents revealed that there was either insufficient knowledge or none at all about the other extra uses to which standard costs could be put other than those chosen by each respondent. With the exception of two none, aimed at more than three purposes: mainly control, budgeting,

and pricing. At least in half the cases there were also reservation that further ambitions would bring more demands and complications.

It is considered important, at this juncture, to review briefly the advantages that can be aimed for when using standard costs other than cost control which has so far been emphasized. These have been mentioned before and this repetition is simply a matter of emphasis that is motivated by the realization that these are perhaps not so obvious to our practising managements - mainly simplification of book-keeping.

Standards are useful for production and price policies. Pricing is important for preparing bids for prospective orders, for planning new styles, production of new products and for furnishing cost estimates. In mass production plants the need is even greater. This particular advantage is taken by a fair percentage (87.50%) in our sample. Clerical economy and/or simplification of book-keeping attracts only 2 out of 16 respondents.

Of great concern is the fact that this situation is more a result of ignorance than choice; and it is hoped that a brief review of how clerical and labour cost can be saved under standard costing would help.

How clerical and labour cost can be saved in standard costing is as follows:[27]

1 - Standard costs are used to carry inventories so that stock ledgers are kept in terms of quantities only. In this way, much clerical effort in pricing and balancing items on stock ledger cards is eliminated. In order to obtain total standard cost of goods on hand, at any time, the quantity in stock is multiplied, by the standard unit cost. Similarly,

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27 - "A RE-EXAMINATION OF STANDARD COSTS" Research Series No. 11, NATIONAL ASSOCIATION OF COST ACCOUNTANTS BULLETIN, February, 1, 1948, p.720 as quoted in J.G. BLOCKER & W.K. WELTMER'S, COST ACCOUNTING, 3rd Ed. (U.S.A.: MCGRAW-HILL BOOK COMPANY INC., 1954) pp. 303 - 304.

average actual cost may be computed by multiplying standard cost by the ratio between actual and standard cost of the goods.

2 - Because the pricing of requisitions or bills for materials to be put into production is not done at actual cost which would entail a laborious process, a lot of time is saved. This is also true for obtaining standard cost of goods finished which can be obtained immediately upon completion by simply multiplying the quantity by the unit standard cost.

3 - Considerable time is also saved because reports highlight only those factors that need management attention and exclude unnecessary details. In this way, the time devoted to the reports by management is also saved.

5.4 ESTABLISHMENT OF STANDARD COSTS

A third focus of the study was on the actual establishment of the standards. This area involves two decision variables: first a decision has to be made regarding the level of activity which should form the basis of the standards - i.e. the degree of tightness or looseness that should be aimed for. Second, management has to decide on what procedures or techniques they should use in setting the standards. It was seen in the literature review that these areas are controversial. The study was mainly interested in finding out what factors lead managements to their choices of particular levels of activity and of particular techniques for setting the standards; and whether such choices were in keeping with the management's objective of installing standard costs. This area was expected to reveal whether practice has kept pace with the theoretical developments in this area in Kenyan management.

5.4.1. LEVELS OF ACTIVITY FORMING BASES FOR STANDARDS

For one or two reasons, the choice of a level of activity to form the basis of a standard cost is a particularly difficult one. First of all, a particular choice while consistent with managements' objective, may lead to behavioural or human relations, problems - We have observed earlier for example, that tight standards are good for control purposes, but may lead to certain human relations problems. Secondly, BACKER & JACOBSEN[28] warn, and this is after the choice has been made, that, while it is relatively simple to categorize the theoretical assumptions underlying the establishment of standards, it is far more difficult in practice to conform to a specified conceptual framework. The precise calculation of the degree of tightness or looseness of standards cannot be done, Moreover ensuring that standards have been set throughout

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28 - M. BACKER & L.E. JACOBSEN, COST ACCOUNTING - a management approach. (U.S.A. : McGRAW-HILL, INC. 1964) p.278.

the organization with the same relative tightness or looseness is impossible (even if managements' policies are clearly defined in regard to the type of standards desired). With these in mind, an attempt was made to determine what levels managers aim for and the reasons for such aims, without necessarily trying to determine whether they actually achieve it. The classification levels used have been described in chapter 3; They also appear on the questionnaire.

Out of the sixteen companies, fifteen used standards for direct materials, eleven used standards for direct labour, and ten used standards for manufacturing overhead. Of the fifteen companies that used standards for direct materials, six used the expected capacity level, one normal capacity level, and eight used the practical - capacity level. For the eleven in direct labour, four used the expected capacity and the remaining seven used the practical - capacity level. The expected actual level was used by five respondents for overhead, and an equal number used the normal capacity level for the same. The ideal capacity level was used by none of the respondents.

Table 5.6 below contains this information.

TABLE 5.6

LEVELS OF ACTIVITY USED AS BASES OF STANDARDS

ACTIVITY LEVEL	FACTORS		
	DIRECT MATERIAL	DIRECT LABOUR	FACTORY OVERHEAD
1. EXPECTED - ACTUAL	6	4	5
2. NORMAL CAPACITY	1	-	5
3. PRACTICAL-CAPACITY	8	7	-
4. IDEAL CAPACITY	-	-	-
TOTAL	15	11	10

The respondents gave various reasons for their choices of the particular level(s). Before going into these, we need to mention that the ten companies that use standards for both direct materials and direct labour, (see table 5.3), there was a consistency of choice for levels between one factor and the other.

That is, if practical-capacity was used to establish direct material standards the same would apply for direct labour. (3 chose expected level, while 7 chose practical capacity).

Four of the total of six respondents that use the EXPECTED LEVEL for direct material and/or direct labour gave reasons for their choices. The answers were that the level was the most convenient, other levels are just theoretical and/or that was the most appropriate level. Further investigations revealed that at least two of these were aware of the various other levels that can be used while the other two did not give the impression that they were either aware or have an understanding of the different implications of each level.

In a way, EXPECTED ACTUAL LEVEL is an average which covers a multiplicity of business errors - waste, poor planning etc. To argue that it is the most convenient or appropriate or that the others are theoretical leads to two conclusions: First, that the conditions are so good for business that managements are led to complacency. While it

might be difficult in practice to attain the desired level at least the aim of management should demonstrate that rigorous cost control is needed. The philosophy changes from that of satisficing to that of maximizing. It is apparent here that management philosophy remains that of satisficing. Aiming at a higher standard than expected averages does not make the former any more theoretical than the latter,

Second, it was also apparent that managements were not very clear about the fine distinction between a budgeted cost and a standard cost - that a budgeted cost is what is expected will result, while a standard cost is what should be the result and that it aims at uncovering the inefficiencies and wastes.

We have argued, earlier, that for control purposes, standards must have all inefficiencies "squeezed out" of them. Therefore, there is a lack of consistency in the seven companies that used expected, and Normal capacity levels since all of them have cost control as their main aim for using standard costs. This indicates a situation where theory has outpaced practice.

Fifteen of the sixteen respondents also use standards as a help in budgeting. There might be a slight conflict between using standards for cost control, and for budgeting. Standards for control show (or should show) what costs should be if certain highly desirable performances are attained. The cash budget will be thrown out if such standards are used for setting it up, because such desirable performances are seldom attained. As one respondent rightly pointed out, expected costs are good for cash budgeting - (but they are not good for cash control). So that there might have been a goal displacement here, whereby standards were established for control purposes but budgeting took over or vice versa.

Several insights are obtained from the reasons given for using the practical - capacity level. Generally here, managements reveal a lot of theoretical knowledge of the principles involved, a clarity of purpose, and the requirements of the different situations. All the eight respondents are aware that cost control needs tight standards, at the same time they are aware of practical limitations of using ideal standards ; the behavioural problems that are likely to result if no allowance is made

for unavoidable inefficiencies such as, for example, spoilage and shrinkage. There is that conscious and consistent effort to set a standard at a level that allows for maximum control while at the same time giving allowance for unavoidable wastes. Said one respondent, "..We aim at cost control as far as possible without being unpractical." Several factors were found to be responsible for this achievement.

In one company, the situation or cost-revenue relationship is such that the smallest savings they can make results in a very big increase in profits. For example, if they can operate at 2% above a previous period's figure, that has a significant impact on their profits. So that all the time they aim at as high performance as possible. It must be explained that no attempt is made by this company to reach for ideals but to meet the set practical-capacity standard.

Some companies have a highly mechanized production process with practical-capacity levels in-built within the machine. In one milling company, for example, the machines are such that

while they can be made to produce 100% flour out of 100% wheat, for their long life and good production, they have to operate at 75% efficiency. In that case a machine produces 75% good flour out of 100% wheat (direct material). This particular point will be discussed further when we come to setting of the standards proper.

The third motivation comes from the influences of mother companies on the operations of their local subsidiaries. This point is dealt with in detail in the next section hence only a short observation is made here. There are cases where mother companies send in a battery of engineers to come and set the standards. In most such cases, appraisal is done by such engineers every other year also. This is very significant in that it introduces another variable in our study; while we are arguing that the level of expertise, and competitive conditions will determine to what extent standard costing technique is used, certain other variables are at play. However, it is not clear whether such external intervention is brought about indirectly by tightening internal conditions or simply by a desire to standardize operations. Whatever the case, this still goes

to affirm that expertise is lacking locally hence the mother company has to send engineers from overseas.

In respect of factory overhead, ten respondents used standard overhead rates. Further discussions revealed that six employed the standard factory-overhead rate not so much as a control instrument but for product costing and in planning. The practical value to management of limiting the standard to cost ascertainment is little unless this process is linked with an equally important one of cost control. The other four respondents were found to operate the standard factory-overhead rate on a dual rate basis, which automatically converts the standard into a control tool. These were only the companies that employed over 500 people (F group), for this reason the achievement may be associated with a greater need for factory overhead control in large companies.

It should be mentioned also that, in respect of overhead standard, respondents based it on expected or normal production. Only one mentioned that their production is limited by sales; so that

they worked from the sales budget backwards. A good number had their sales, instead, determined by production, so that they worked from production budget forward.

In all the respondents, there was a general reluctance to anticipate prices. So that the price standards were determined mostly on the basis of future market prices for materials, labour, and indirect services. Quotations from suppliers and union agreed rates were used generally. This should probably have been discussed under Section 5.4.2; however, having done so here saves such a later exercise.

5.4.2. TECHNIQUES USED FOR SETTING THE STANDARDS

Setting a standard involves the determination of the amount of material and labour/time to be expended in making a product. In order for the standard to be useful for control purposes, the exercise goes so far as determining the types or specifications, and the quantities of materials and/or labour which enter into the product for which a standard is being compiled. Different procedures and their merits were discussed in chapter three. Here we are going to report the findings of an investigation into this area.

The procedures were classified into the following techniques: Engineering studies, & time and motion studies, (2) Past experience (Past data/performances); and (3) statistical analysis. This classification or grouping served as a means of standardization of the information sought.

Past experiences or performance techniques for setting standards meant those techniques which relied solely on the use of past actual performances, observations etc., where these were available from the records and were used with or without adjustments for deciding that so much material of this quantity, so much labour/machine hours and so much factory overhead should go into a product. Statistical techniques include all those methods in which statistics of any form was employed, such as statistical sampling techniques. Engineering, and time and motion techniques here meant any methods that involved a scientific determination of the standards. Under these methods will fall, for example, test runs, and time studies - where an expert observes and records each element of the work cycle; times these elements with a stop watch, rates the skill etc. These are generalizations as, indeed, the finer details of how exactly to do these things will depend on the nature of the product and the production process. The classifications are merely to guide our study. These methods differ in their level of accuracy, and their usefulness, which are dependent on, among other things, the degree of caution exercised at this planning stage. Also,

some are more expensive than others and the level of expertise required is indeed different.

In this connection, the study went out to find out what methods the companies were using. All respondents were asked to explain the procedures that they followed in establishing their standards and these were classified appropriately. In order to determine whether a technique was used because it was the only one that was known; feasible; or appropriate (and optimal), they were also asked whether (a) they knew of any other technique(s) for establishing standards; (b) whether they thought or felt that the one they were using was the best for their companie(s); and, (if no), (c) what prevented them from using the best technique.

Table 5.7 below shows the different methods used by the sixteeen respondents for setting the standards for direct material, direct labour, and factory overhead.

TABLE 5.7

TECHNIQUES USED FOR SETTING THE STANDARDS

TECHNIQUES	DIRECT MATERIAL	DIRECT LABOUR	FACTORY OVERHEAD
1. Engineering/Time & Motion Studies.....	9	6	3
2. Statistical Analysis.	4	1	3
3. Past Experiences/ Performances.....	2	4	4
TOTAL	15	11	10

Classified under engineering and time and motion studies techniques are a number of some very sophisticated ways that were found to have been used in setting the standards. Mostly, a team of experts came from overseas and actually took a long time studying the operations, making test runs, and setting the standards. Mother companies played a significant role in this. As explained before, a majority of the companies are either fully or partly foreign owned; so that when talking about mother

companies, we are talking about "mothers" to both groups and not just those fully foreign. However, foreign expertise was not confined to these group of companies. Three local companies also we found to have benefited from their services.

An interesting situation was found in one compay in which their standards had been set by the mother company. These were found to be too tight (especially labour standards) and management had to relax them in order to make them less resented. Clearly this is a case where not solely scientific methods were relied upon but past experiences and performances were also used in order to arrive at a workable and acceptable compromise. These were, however, classified under engineering technique.

We notice past performances and statistical analyses are also being used. One of those companies using past data had as a reason the fact that past experiences was the only convenient method. Their costing system was job-order and did not lend itself to economical use of sophisticated techniques.

Seven out of sixteen respondents knew, and nine did not know of any other technique(s) for setting the standards. One of those who did not know any other technique used past actuals and two used statistical analysis.

The next question was whether the technique being used was thought the best for the company. To this question, there were 13 positive, 2 negative, and one neutral responses. As the thirteen positive responses explained, saying 'yes' to this question did not mean or imply that no improvements could be made but that a satisfactory way had been used and only improvements within the set framework and adjustments were constanly being sought and made.

It is worth noting that out of 6 that use past performance data for either material, labour, or overhead, 3 denied knowledge of any other technique for setting standards and the same felt that the techniques they were using were satisfactory for their companies. Of the four using statistical analyses, three denied knowledge of any other technique but felt that the methods they were using were satisfactory for their companies.

This is curious when viewed against the fact that in all these companies standards have been used for a good number of years (Range 4 - 15 years). Standards of this nature are considered less effective for control purposes and are only recommended for initial installation period only. The respondents' satisfaction with them can only be attributable to their ignorance of other better alternatives and the easy business conditions.

Most prominent again are two big companies, one 60 years old and the other 20 years old which use past experiences and statistical analysis for setting standards. Both use process, and/or combined process and job costing methods and have been using standards for 10 and 15 years respectively. They both claim knowledge of other techniques, but feel that their present techniques are good for their companies. Worth mentioning is that these companies are absolute monopolies in the sense that they are the sole producers in their respective industries. The only direct competition they face are imports which are subject to very high customs duties. These are so high that the imports sell at 100% or more over the local products.

Two companies were not satisfied with the techniques they were using for setting their standards. One was using scientifically set standards, but was till not satisfied and was looking forward to improving them. Something was wrong with the standards but it wasn't known yet what had to be done about the whole system. The second respondents were using the standards from the mother company adjusted downwards.

By way of rounding - up this section, it might be said that, generally speaking, the procedures of setting the standards are fairly satisfactory to the extent that they are mostly accomplished by the use of scientific methods which are generally considered the most accurate. The pratical value of those relatively few systems which are based on what may be called crude standards cannot be ignored or underestimated. They also meet such other objectives as, for example, shortening the time required for producing operating statements and they also do give some control information that may not be obtained without any form of standards. It must be added, however, that for rigorous cost control, their usefulness is limited and it is necessary that they be replaced with more scientific ones.

Their use should not be allowed to go beyond the allowable initial installation period.

The deployment of overseas consultancy and expertise has been very instrumental in the achievement made in the use of the standards. The findings lead to the rejection of the hypothesis that the technique will not be found to be applied to a great extent - here measured by the level of sophistication of techniques used for setting the standards. The expectation was that due to lack of expertise - that is, lack of knowledge of the pros and cons and/or of the better alternatives, or lack of skilled people that can establish synthetic standards - and/or a lack of competition to motivate firms to aim at better standards, firms would be found to be satisfied with no more than crude standards. At the same time, our notion of lack of expertise is upheld, as evidenced by the heavy dependence or reliance on foreign consultants and experts. Lack of expertise also featured prominently in part I of this study as a major constraint that respondents faced.

Importing expertise from overseas must be expensive, much more expensive than if it were available locally. Few companies can afford such an expenditure, and even for those that can afford it, the motivation (for importing consultants) or the reasons for doing so must, indeed, be fairly strong. A firm must feel that its very existence is threatened and such an adoption would bring salvation.

5.5 HOW STANDARD COSTS ARE OPERATED

The operation of a standard cost system begins with the decision to use them, for a specific purpose. The purpose for which management will use standards has a bearing on the level of activity that is going to be aimed for, and the procedures that are going to be followed in setting these standards. However, the actual operation of the system still has to be effected. For this reason, after investigating;

(i) the purpose of using standard, and

(ii) how these are established,

the research went further to find out how the system(s) were being operated. An omission of this would render this work defficient and inadequate.

Specifically, the study went to investigate

(a) Whether standards were incorporated into the books or merely used as exhibits. If the latter was the case, reasons were sought for such a practice.

(b) Whether variance isolation was immediate or delayed; and

(c) How variances were disposed of.

As seen in chapter 3, these areas are very controversial - being the subject of much debate. The accountant must understand the various view points and their ultimate effects if he is to avoid muddling his accounts and confusing the interpretations. A study in these areas, it was hoped, would reveal the gap between theory and practice. Only when the extent of the gap is known can appropriate steps be taken to fill or close it.

CHARLES F. SCHLATTER,[29] has put very aptly and succinctly certain requirements of a good cost accounting system that must necessarily be referred to in evaluating the methods:

> "1 - It must aid in the day-to-day control of the operations and costs of the business. Without this service, there might be no profits to show on end-of-the-period statement and eventually no assets to exhibit on a balance sheet. This service concerns the operating executives primarily.
>
> 2 - It must furnish reliable data for statements at the end of the period. This function concerns the financial executive and, chiefly, the creditors. Without this service, there might be no credit and no funds with which to operate.

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29 - CHARLES F. SCHLATTER, COST ACCOUNTING (New York: John Wiley & Sons, INC. 1953), p. 601.

3 - It must pay its way. If the costs of cost accounting exceed its savings, it must be discontinued. Cost accounting per se has no reason for existing."

He goes further to warn that the first two requirements "..often seem to be diametrically different from each other. What satisfies one often seems not to satisfy the other completely." He says that circumstances should determine which should be preferred. For example: "In a business, with relatively few, but large expenditures, the control of the business depends little on the accounting procedure, and the second purpose is given preference. In a manufacturing concern with almost inumerable expenditures, relatively small in individual amounts but large in total, the accounting procedure is a very important factor in the control of expenditures and in the economy of operations; therefore, the first requirement of cost accounting must be stressed." With this in mind, we may proceed to examine the different practices.

5.5.1. COMPARATIVE Vs. INTEGRATED STANDARD COSTS

Standard costs may either be incorporated into the accounting system of a firm or may be used merely for comparative purposes. The two procedures are equally advantageous for control purposes as variance analysis is possible in both. The main or added advantage for carrying standard costs through the accounts is that simplicity is gained, cost of accounting is reduced, and reports may be rendered promptly at the end of the period. A school of thought that is opposed to this idea or procedure says that carrying inventories at standard is a violation of "truth in accounting" that cannot be offset by the said advantages. So that incorporating standard costs has the disadvantages that the problem of variance disposal arises and/or the bother of having to prorate the variances in order to bring the accounts to or as close as possible to actual (true) costs.

The study revealed that 50% of the total respondents used their standard costs for comparative purposes only, while the other 50% have them integrated. The study went further to identify the main reasons for not integrating

the standards into the accounting system. The respondents felt either that it was not necessary to incorporate the standard costs, because that does not make control better, or, that is as far as they felt they wanted to operate the system. Such incorporation would bring a lot of unnecessary paper work and lots of complications without any benefits because they (respondents) would still have to convert the accounts to actual costs. All of them felt that only actual costs can or should be used in financial accounting statements.

Indeed a selected system or procedure is determined by the requirements of the management at the time the system is installed. So that we cannot be too dogmatic regarding which is the better system. If management needs standards purely and only for control purposes, there is nothing obliging them to go beyond that; but prudence dictates that there must be a valid reason for not wanting to maximise the benefit of an already installed system. As has already been discussed in previous chapters, several advantages accrue from integrating standard costs.

Of intergrating standards, SCHLATTER[30] says:

> "When standard costs appear in the accounts, the first and the third requirements* are nearly always well met; and, if inventories are valued at real standards, carefully and accurately determined, all the three requirements are well met."

It would appear that managements have limited this system to the minimum set by necessity. From their arguments the usefulness of extending the system beyond this minimum, while justifying the extra effort and work, is not readily or immediately apparent to them. Only two respondents mentioned lack of accounting staff with the experience and expertise as reason(s) that stopped them from going beyond comparative to integrated standard costs.

It is particularly interesting to realize that seven of the eight companies that have incorporated

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30 - IBID p. 601

* These requirements were stated earlier on pages 128 - 129.

their standard cost into their accounting books, also have the idea that for a proper financial statements all statements must ultimately be at actual costs. As a result, only one company was found to keep inventories at standard costs, and included them for financial reporting purposes.

5.5.2 VARIANCE ISOLATION: IMMEDIATE VERSUS DELAYED

Asked whether variance investigation is done:

(i) thoroughly and regularly,

(ii) at random, or

(iii) largely ignored?

all but 2 of the 16 respondents gave (i) as the answer. Of the 2, one respondent did it at random, "when variances are very, very big," and the other did it at random on certain items and regularly on others.

Variance reports are most effective if prepared daily and/or weekly. It is almost too late if the reports are prepared after monthly closing.

Those that responded "thoroughly and regularly," it was found that they mostly did investigation on a weekly basis with the exception of five who did it on a monthly basis.

All the 16 companies used the variances for cost control although at least one expressed the reservation that price hikes were rendering such an exercise less meaningful. Of the 14 that also used standards to judge managerial performance only two had bonuses attached to variances: that is they have a policy of directly increasing or reducing compensation on a routine basis for employee - caused variances. One of these have their standards based on past performances and statistical analysis. This is objectinable on the grounds that standards are not accurate and are, therefore, more likely to lead to several dysfunctions. For the 12, compensation is independent of standards or variances - they rely on other systems for rating their employees or have uniform bonus systems, although persistent adverse variances may and do in certain rare cases lead to various punishments (demotions, bonus forfeiture, transfers, etc.) in some companies.

The merit of isolating variances early is similar to that gained by frequent reporting. The aim is to alert management of the irregularities as soon as they occur so that action may be taken early enough to pre-empt similar ones occuring. Waiting until the end of the month has the disadvantage that several similar inefficiencies may have been repeated before being detected and discouraged. Table 5.8 below depicts the findings on variance isolation for the eight companies with integrated standards.

TABLE 5.8

VARIANCE ISOLATION : IMMEDIATE VS DELAYED

	DIRECT MATERIAL	DIRECT LABOUR	MANUFACT. OVERHEAD
IMMEDIATE ISOLATION	3	1	-
DELAYED ISOLATION	4	4	4
TOTAL	7	5	4

NOTE: Not all respondents had standards for material, labour and overhead. Some confined standards to two factors.

The study reveals a general tendency to delay the isolation of variances. 4 (57%) out of 7 delay the isolation of material variances and 4 (80%) out of 5 for labour variances. The higher percentage of delays for labour may be an indication of less importance attached to labour as compared to material control.

5.5.3. VARIANCE DISPOSITION

The eight respondents with standard costs incorporated in the accounting books were of relevance to an investigation of how variances are disposed of. As mentioned, already in the preceeding section, the findings show a very heavy reliance on actual costs, with 87.5% prorating the variance so as to go back to'actual costs'.

Of the one company using standards in the valuation of inventory, more needs to be said. The company has accepted and adopted the idea that standard costs are true costs and has adopted a policy of regarding all variances as having no bearing on the intrinsic value of the goods. It charges direct material, and direct labour variances directly to

profit and loss. While this demonstrates the confidence that management have in their standards, it is the researcher's feeling that a compromise ought to be sought between practical convenience and sound accounting theory. At least the company ought to distiquish between variances due to actual inefficiencies and those that are a result of incorrect standards. A portion of the latter will include what can rightfully be attributed to the products (goods).

The treatment of factory overhead variances in this company follows what COWAN[31] has called a minority view. According to this view, "... the balances in the standard cost variance accounts should be carried forward. The reason is that the standard costs are based on normal conditions and normality is a kind of average over time."

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31 - T. K. COWAN, THE ACCOUNTING FUNCTION, SWEET & MAXWELL (N.Z.) LTD., New Zealand, 1965) p. 238.

They have observed over time that unfavourable overhead variances in one month will almost invariably be offset or nearly completely offset by favourable ones in subsequent periods/months. So that they find no need to bother about dumping them in profit and loss account.

It is obvious from this study that little is known about the practical value of standard costs. It is also clear that our companies are 'old fashioned' as evidenced by their illusion with the so called "actual costs". The computation of actual costs is open to question because, due to the work involved and the amount of paper work, errors may and often do occur and what ultimately comes out as the actual cost is an approximation anyway. This is even a greater problem in large and complex organizations. The rejection of standard costs can only be, according to SCHLATTER,[32]

> " ... lack of sympathetic understanding of the problems confronting the cost accountant in trying to meet the first and the third requirements (above, pp 128 - 129).

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32 - SCHLATTER, Op. Cit. pp. 602

> "He generally insists on holding strictly to the idea that the books shall be kept as if the only function of accounts were to furnish data for periodical statements and for income-tax. He often disregards the use to be made of accounts in guiding the daily operations."

He further stresses that:

> "... accounting must serve business and not necessarily any particular theory, however venerable. In other words, service to business must come first and respect for theory second, although the two are seldon incompatible".

Apart from purely internal considerations, business accounting practices are affected by the state and professional accounting bodies charged with the responsibility of regulating, coordinating and standardizing the practice. As observed

earlier, in U.S.A. and Britain standard costs may be used in accounting statements. So that the extent of their use there is purely determined by how individual firms resolve the various arguments or whether the benefit of doing so is greater than not doing so. More and more companies are using standards for external reporting in these developed economies. And, if this is anything to go by, it would seem that there is much to be gained by doing so than by not.

In Kenya, both the government (companies ordinance & Income Tax Ordinance) and the Institute of Certified Public Accountants (K) are silent on the question of whether or not standard costs may be included (used) for financial reporting purposes. In most (if not all) situations where this is the case, Western procedures are followed as closely as knowledge and resources will permit. There are various areas where we are lagging behind in terms of accountancy developments. This is one area where cost accountants have not yet sold to management and succeeded in convincing them "that standard costs are real costs and thus should be

booked."[33]

National Association of Cost Accountants (NACA) Bulletin[34] reported as early as 1948 findings from a number of representative companies on the question of booking standards. Table 5.9 shows their findings which show a much greater use of standard costs in financial statements than our present study whose results are shown on Table 5.10.

TABLE 5.9

	NUMBER OF COMPANIES	
	Materials Quantity Variance	Labour Variance
Variances treated as period costs; inventories charged with standard costs only.	47	52
Variances divided between inventories and cost of sales; inventories at approximate actual cost.	13	11
No standards used for this element of cost; actual cost used.	3	0
NUMBER OF COMPANIES REPORTING	63	63

33 - Here, the researcher shares the views of Pro.S.A.ZEPF Op.Cit

34 - STANDARD COSTS FOR COSTING INVENTORIES, NACA BULLETIN, June 1,1948; in STANLEY B. HENRICI'S STANDARD COSTS FOR MANUFACTURING, 3rd Ed. (MCGRAW-HILL BOOK COMPANY, INC., 1960) p. 111.

TABLE 5.10

	NUMBER OF COMPANIES	
	MATERIAL QUANTITY VARIANCE	LABOUR VARIANCE
Variances treated as period costs; inventories charged with standard costs only.	1	1
Variances divided between inventories and cost of sales; inventories at approximately actual cost.	6	3
No standards used for this element of cost; actual cost used.	9	12
NUMBER OF COMPANIES REPORTING	16	16

5.5. PROBLEMS IN OPERATING STANDARD COSTS

A minor objective of this research was to identify the problems of operating standard costs in Kenya. While the researcher did not feel that this technique needed to have any peculiar problems from those generally found in other countries, it was felt necessary that this feeling be documented. It was also felt or

hoped that this would give support to some of the researcher's reasons for hypothesizing that standard costing will not be found to be used to a great extent in Kenya.

A questionnaire was used in two ways in trying to discover the problems that managements face in using standard costs. First, an open question was put to the respondents to mention the problems (both technical and behavioural) that they meet in using the technique, and these were recorded. Second, a structured question listing a number of possible problems* was given to the respondents who were required to indicate to what extent the listed problems affected their companies. Codes were to be used for the extent as follows:

EXTENT	TO A VERY GREAT EXTENT	TO A GREAT EXTENT	TO A LITTLE EXTENT	TO A VERY LITTLE EXT.	NOT AT ALL
CODE	4	3	2	1	0

* HENRICI, p. 11, lists problems that may harm the operation of standard costs. This list was adopted with minor (actually two) additions - (a) and (b).

The first method was useful because the researcher could not anticipate all the possible problems that manufacturing firms face in Kenya. Again this method would make it possible to get qualitative data which is very useful. The second method was prompted, first, by the fact that preliminary survey revealed an inability, by certain respondents, to say exactly what their main problems were or remember most if not all of them. This method also enabled the researcher to get information on specific issues in a standardized form.

5.6.1. RESPONSES ON THE OPEN-ENDED QUESTION

Most respondents answered the question of what problems they were encountering with respect to standard costing, with some giving more than one problem. There was only one non-respondent. Lack of manpower and expertise was mentioned by six respondents which made it the most common of the other problems given. This particular problem can be associated mostly with big size as evidenced by the fact that, of the six respondents, five are size F and one size E and none of size D (between 100 and 199 employees). This situation

can be explained by the fact that as businesses grow, there is a greater demand for formal control systems and expert manpower to man the system.

There is such a shortage of accountants that some companies are forced to do without fully established cost accounting departments, as such - only a few people doing just the requisite minimum of a costing system. Some of the bigger companies, as indicated earlier, have the advantage of getting trained manpower from overseas. This is at a higher costs, of course, so that only one or two people will be recruited may be where four or six are required. This explains why even in such companies the problem persist - and even take a new dimension.

In one particular company, the financial manager was indeed a very experienced expatriate who had been brought in with the hope that he would remedy problems of financial management and cost control. His problem was that there was such a gap, in terms of knowledge and experience, between him and the next best man in line that he found himself bogged down to even variance anlysis because no one else could understand and do it. This took the manager's time from directing,

planning and coordinating other activities such that several other duties were neglected or not done satisfactorily, including the control function itself.

In an effort to try and overcome or reduce this problem, some companies encourage and even finance their accounting stafff to further their studies with accounting bodies such as the Association of Certified and Corporate Accountants (A.C.C.A.), the Institute of cost and Management Accountants (ICMA), and the Kenya Institute of Certified Public Accountants (C.P.A.(K)). This endeavour goes a long way, indeed, in trying to circumvent the problem of manpower shortage; and yet it has also had serious problems.

One of the first problems that managements face had to do with the problems of education itself. It is very expensive to train accountants, in the first place, and many firms are limited by funds to finance such ventures or to finance to the extent that their manpower needs may be met. The high failure rate in professional accountancy increases both the risk and expense. This may be held responsible for the smallness of the number of firms willing to finance students / employees. Similarly, while some

firms ultimately decide to venture into education with all its risks and demands on resources, others prefer a less risky policy. That of attracting, with higher salaries and lucrative fringe benefits, those who finally finish their professional qualifications. This has the effect of increasing further the risk of loss for those firms which invest in this kind of education. Some companies feel, therefore, that although the process of training more and more accountants has positive effects in the effort of improving accounting operations of Kenya firms generally,the programme would be facilitated if all firms participated in a way proportional to their needs and financial strengths. They cannot see this type of training continue for any length of time under the present set-up where some firms bear the entire risk without the guarantee that they will reap the benefits.

A second problem that firms encounter in operating standard costs is that of inflation. Some four firms found this a big problem because it necessitated revision of the standards a bit more frequently than they had ever had to when prices were a bit more stable. The process is expensive and bothersome.

Indeed inflation poses certain problems or difficulties. A physical inventory must be taken and items affected must be re-priced so that the standards reflect current conditions. From the stand point of accuracy this is necessary, and yet too frequent revisions may also weaken their effectiveness as control tools. Unless the company is fairly small, again, the process of revising standards cannot be carried out more often than once a year without heavy expenditures. For these reasons, some accountants feel and advocate that changes in prices be accommodated without necessarily revising the standards by noting the known effect of such a hike on the price variance and taken into consideration when variances are anlaysed and investigated. This certainly circumvents this problem but only to the extent that such price changes do not happen more than once inside a year as this would make it even more difficult and absurd to work with such unrevised standards.

Discussions with managers give one the idea that, in fact, price changes are so frequent as to occur in some cases more than once within a single accounting period. At least one company

complained that, although variance investigation is still done thoroughly and regualarly, often the standards are so way out, partly due to constant price changes, that the exercise is meaningless. This may suggest that their standards too are erroneous, but it is also true that inflation does not give much incentive, let alone, facility, to set proper standards.

Another company had an interesting problem. Their standards were expensive because they were complex. Their complexity also led to misunderstandings because it was very difficult sometimes to seperate the causal factors and responsibilities. It might have been easier for the researcher to conclude that the case was a typical situation where a company is overburdened with a system much more sophisticated and complex than it requires and can cope with. However, this particular company is one of the biggest, with over 500 employees, whose needs cannot be expected to be fully met by relatively crude and cheap means. And, at least theoretically, standards should be most suited to this type of business, being a milling business. Scientific standards of the

nature and sophistication that it operates are in order, having been installed by engineers who spent an awefully long time studying the operations of various work units. Perhaps what is amiss is lack of a comprehensive accounting manual that explains the various procedures. Incidentally, none of the sixteen respondents had a manual such as the one suggested here.

At least 50% of the total respondents had behavioural problems of some kind. The problems were due mainly to misunderstandings or lack of understanding of the standard costs which in some cases led to a total rejection of the system.

In two companies, the problem was said to be that people do not understand the standard costs: That is they do not seem to appreciate their whole purposes and the general procedures. Worth noting, however, is that there was no training lessons or classes in these companies, where a thorough explanation of standard cost system was given. The companies relied solely on on-the-job-training.

While on-the-job training is a common and useful way of induction, it is more suitable for some jobs or situations than others. It is for managements

to determine whether or not it is suitable in their situations. The fact that lack of understanding of the standards persists in spite of on-the-job training probably suggests that this type of training is either unsuitable or in-adequate. Further, Henrici[35] suggests that, since a standard costing system is usually installed by people other than those who ultimately operate it, it is essential that a chart of accounts is supplemented by an accounting manual for the guidance of those who will ultimately use the standard cards etc., so that they know what to write and where. In this way, he advises, mistakes and confusion can be avoided. This lack of understanding led to other problems including rejection of the system in the other six companies.

In another company, (employees) were reported to have a feeling of being harassed by the system. They felt that it was just a management tool that was used to get at them. The literature suggests that standards may act as a motivating force for higher performance because the individual knows what is expected of him unlike a situation where the individual does not know the target.

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35 - J.B. HENRICI, Op. Cit.

In other words, setting a target that reflects management objectives increases the probability that people will work towards those objectives. But this is contingent upon the employee's acceptance of such a system and its goals. A failure to meet these conditions may lead to such feelings as fear of harassment and in some cases to a total rejection of the system. Similar feelings of fear and harassment, and rejection of the standards manifested themselves in several other ways in the other five companies.

Two companies expressed "a lack of morale," "a lack of commitment to agreed targets", and "a lack of sustained effort to meet set target." Those companies complained of such malpractices as supervisors hiding documents when they fear that the report will reveal adverse variances and including them in later reports when they feel that favourable variances will offset their effect; in one company employees deliberately caused break-downs so that they could find an excuse for rest or sleep; in yet another, people felt overworked and also feared being laid-off, forcing management to attach bonuses to good performance with the hope that this might motivate them to higher performances. A failure to incorpor

all expenses (hiding documents) and deliberate damage (breakdown) to equipment were found in the two companies that have bonuses attached to variances. As some accountants or behavioural scientists have suggested, this may be an indication of the inadequacy of standard costs as performance measures and that they should be aided. (It was indicated earlier that most of the respondents in fact rely on several other techniques or measures for rewarding their employees).

The study revealed also that little attention is paid by management to the participative type of management, with only three respondents out of sixteen (or one out of the eight that reported human relations problems) have participation of any kind. Most of them feel that participation is unnecessary and a waste of time as employees would not appreciate what is involved.

The literature itself is divided on the likely effects of participative management - whether it will lead to goal congruence or not. This is partly because little is known about human behaviour anyway. We can only say that it is a dilemma that all managements must face.

Raymond Villers[36] talks of this strange dilemma faced by industrial management to-day. While planning and control are, as shown by experience, the basic requirements of economic manufacturing " ... intensive research in human relations shows with equal conclusiveness that our large organizations and methods of planning and control are, more often than not, antagonistic to good human relations, so essential to the successful management of an industrial enterprise". So that the challenge is that of striking a balance between or reconciling the two such that human relations problems are minimized as far as possible while maximizing the utility or effectiveness of our control instruments. One such way, VILLERS suggests, is through participation. Participation may "... reconcile the technical necessity for planning and control with the pressing need for good human relations in industry."[37]

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36 - RAYMOND VILLERS, CONTROL AND FREEDOM IN A DECENTRALIZED COMPANY, in "TOPICS IN MANAGERIAL ACCOUNTING, by L.S. ROSEN, (CANADA: McGRAW-HILL COMPANY OF CANADA LTD., 1970) p. 185.

37 - HENRICI op. Cit. p.2

5.6.2 STANDARDIZED QUESTIONNAIRE

As explained before, problems of operating standard costs were studied in two ways. This second method is most pertinent to the study of the extent to which standard costs are used in Kenya, as it refers specifically to those factors that are known, according to Henrici, to defeat and stiffle an otherwise good standard costing system. Items (a) and (b) of the listed problems in table 5.11 were the researcher's additions, that were aimed at supporting or cross-checking on those specific factors.

Out of 16 companies, a total of 13 responses was obtained. This particular part of the questionnaire was an after-thought in the sense that it was conceived of when the research was already continuing, and actually six companies had been interviewed. A supplementary questionnaire was therefore mailed to the six companies, and the result was 3 non-respondents. For those that had not been interviewed at the time the idea was conceived, the question was attached to the main questionnaire and information obtained during and by one interview.

TABLE 5.11

LIST OF PROBLEMS	TO A VERY GREAT EXTENT (4)	TO A GREAT EXTENT (3)	TO LITTLE EXTENT (2)	TO VERY LITTLE EXTENT (1)	NOT A ALL (0)	TOTAL
(a) Lack of funds	-	-	1	-	12	13
(b) Lack of expertise to man the system	-	4	3	4	2	13
(c) Inadequate supervision and adminstration	1	2	2	2	6	13
(d) Standards installed too rapidly	-	-	1	2	10	13
(e) Bad organization	-	-	1	1	11	13
(f) Expecting too much from the standard	-	-	2	3	8	13
(g) Inadequate accounting system	-	-	1	3	9	13
(h) Inadequate statistics of past operations	-	1	1	4	7	13
(i) Inadequate cost system	-	1	2	2	8	13
(j) Expecting results too soon	-	2	-	5	6	13
(k) Failure to obtain cooperation (from staff)	-	1	2	1	9	13
(l) Failure of top management to give active support	-	-	1	1	11	13
(m) Failure to analyze results&ascertain causes of variances	-	1	2	2	8	13
(n) Too many forms - too much detail	2	2	1	1	7	13
(o) Routine procedures not sufficiently adequate	-	-	2	3	8	13

From the above table, some things are already obvious and little needs be said about them. The discussion and interpretation is accordingly biased in favour of the less obvious, and the most important for this study.

'Lack of funds' emerges as no problem to 92.3% of the respondents, with 7.8% indicating that that is a problem only to a little extent" (code 2). This position is consistent with the fact that no respondent mentioned finance as a major problem in the open-ended question, and during the entire research. For this reason, it would seem that whatever relationship finance has with the extent to which the technique is used, it is less significant and less direct. This throws away our justification that lack of finance will also be responsible for the little extent to which standard costing is applied in Kenya..

It is observable from the tabel that over 60% of the respondents feel that their standards were not installed too rapidly; their organization is not bad; and management gives them active support. Installing standards too rapidly has the disadvantage that less time is devoted to studying, with care and diligence,

the different organizational units so that the system that is finally installed is fitted to the needs of the organization. It becomes difficult to operate efficiently a system that is not tailored to the needs of the organization. In a similar manner, a system that lacks the sympathy of top management is bound to have problems, because it will lack that legitimizing authority behind it. Bad organization makes it difficult, among other things, for lines of authority and responsibility to be properly defined. This makes it difficult to pin-down responsibility as it is much easier to "pass the buck". In such a situation, the control process weakens and may ultimately fail completely.

It is encouraging to observe that at least 50% of the respondents are affected "NOT AT ALL" by inadequate accounting system; in adequate cost system; the inadequacy of routine procedures; expecting too much from the standards; with the other 50% affected only up-to "A GREAT EXTENT".

Standard cost systems are complementary to ordinary cost systems. These are in turn complementary to entire accounting systems whose aim is to aid decision makers by furnishing them with necessary information. Sound accounting systems are essentia

for a sound and efficient standard costing system. Routine procedures should also be sufficiently adequate so that, for example, general reports are not confused with specific departmental reports: Reports relevant to production should get to production management, reports dealing with the selling of products should go to sales management and so on, and reports which affect all top managements and especially general management should be directed there.

Still more than half the respondents were affected "NOT AT ALL" by:

(i) the inadequecy of statistics of past operations

(ii) failure to analyze results and ascertain causes of variances.

(iii) failure to obtain cooperation, and,

(iv) too many forms - too much detail.

But we cannot ignore the fact that among those few that are affected to some extent, two to three respondents feel that they are affected "to a LITTLE EXTENT", and "TO A GREAT" which are higher degrees of extent than "TO A VERY LITTLE EXTENT."

So that to these extents these problems exist in some of our companies. One of the companies felt that the inadequacy of statistics of past operations was a problem "to a great extent" in the sense that, although for their internal needs they had a fair amount of such data, government was always asking more and more for the statistics that they didn't have. In order to meet this governmental demand, certain adjustments were often made,and, sometimes new forms being created. This led to a further problem of "Too many forms - too much detail", because "people are good at creating new forms, but fail to realize that new forms almost always include information that old ones already have, and therefore, old ones could easily be abolished without any loss of information". It is particularly noteworthy that 6 of the total respondents feel that "too many forms - too much detail" is a problem to some extent, with two feeling that it is to a VERY GREAT EXTENT, and another two feeling it is to A GREAT EXTENT.

As one respondent has rightly pointed out, this is a result of new forms being created from time to time in order to meet certain informaition needs.

These new forms often overlap with existing ones; and again, some old ones are no longer necessary as the needs which they were meant to meet no longer exist.

One way in which companies may reduce the number of forms or amount of detail without prejudice to the management information needs is by periodically "weeding" system. Every other time, a designated official, committee, or body sits down to review each form to see whether it is still necessary, or whether it can safely be done away with. Some new forms will be found although designed to meet specific current needs to duplicate information already contained in old ones. In this case, old forms can be weeded out and destroyed as new forms will replace them as well as meet further information needs not contained in the old ones. The same results can be obtained by deliberately designing new forms such that they replace old forms as well as meet new needs. The volume of forms can be cut-down in this manner.

Sometimes, the problem is more of over-information than of overlapping forms (or information duplication).

This happens where management is clouded with all kinds of information - sometimes simply because it is all deemed important. The danger here is that, because of too much information, management will see less what we want them to see, or will have so much information that they do not know what to attend to first. In this situation, the control system will be crippled and fail to function as intended. It is for management to decide on the type of information they require to meet set objectives and to gear their information systems such that only the necessary minimum is maintained - without either giving too much unnecessary detail, or without skipping the essentials. A real effort should be made to keep forms to an allowable minimum.

A total of seven respondents said that they were absolutely not affected by "too many forms - too much detail." Three had computerized their accounting systems and actually attributed their success to that fact. They claimed that computerization did away with a lot of paper work. However, installation of a computer may be far out of reach of many of our firms, so that the earlier suggested solutions may still prove the best.

One of the seven companies actually had a weeding programme.

Lack of expertise has featured prominently throughout this study, and discussed at great length. As a way of cross checking, it was included in the list of problems that respondents (companies) were asked to indicate to what extent they (problems) affected their operation of the standard costs system. The findings in Table 5.11 are interesting and significant.

From the table, one notices, first, that no respondent is affected "TO A VERY GREAT EXTENT" by lack of expertise. This should,however, be viewed against the backgroudnd that for the rest of the listed problems, with the exception of only two - "inadequate supervision and administration," and, "too many forms - too much detail" - there was no other item classified under this category (of extent).

Secondly, it should be observed that lack of expertise recorded the lowest number (15%) of respondents under "NOT AT ALL" - (the other end of the scale). The next lowest recording (46%) under

"NOT AT ALL" is by "inadequate supervision and administration," and "expecting results too soon."

Eleven out of the thirteen respondents acknowledged that lack of expertise affected them to some extent with 4 (31%) choosing "TO A GREAT EXTENT". This number (4) represents the highest under "TO A GREAT EXTENT" for any of the other listed problems. The next highest number is two. Up the scale (ladder) from "to little extent" to "TO VERY GREAT EXTENT", lack of expertise again records the highest number (7) of respondents - followed by "inadequate supervision and administration, and "Too many forms - too much detail," both of which record five respondents each.

The figures also show consistency between the responses for LACK OF EXPERTISE (b) and INADEQUATE SUPERVISION AND ADMINISTRATION(c), especially for the 4 respondents that chose "to great extent" for (b). For problem (c), these four respondents chose as follows:

To very great extent	=	1 Company
To a great extent	=	2 Companies
TO LITTLE extent	=	1 "
TOTAL	=	4 "

This consistency is understandable because supervision and administration is done by (skilled) people. The sizes of the four companies are also all above D group, as follows:

D	= 0	out of	5 D's.	0%
E	= 1	" "	2 E's.	50%
F	= 3	" "	6 F's.	50%
TOTAL	4	" "	13	

This contrasts well with the fact that the 2 that answered "not at all" under lack of EXPERTISE are both of size D. This supports what was found to be a common factor, that lack of expertise seemed to be felt relatively more by the bigger companies than small ones. This generalization may, however, be limited by the size of our sample.

CHAPTER 6

SUMMARY AND CONCLUSIONS

6.1. DISCUSSIONS

Reading through cost accounting literature, one gets the impression that standard costing is so generally accepted as a useful accounting (control) technique in industry that few manufacturing firms (if any) would be found to be doing without it. In the developed economies (of the West), the technique is very widely used - to the extent that even in the small firms, hitherto considered not suitable, it is found. Several factors have been responsible for this.

For example, the growth of businesses to enormous sizes, coupled with stiff competition called for rigorous cost control. The sheer size of modern firms and the nature of the control problems, therefore, render crude, old-fashioned, rule-of-thumb methods both ineffective, out-of-date, and irrelevant. This forces managements who are constantly seeking an edge, to look for better and advanced techniques for cost control.

Standard costing and budgetary control supply an answer to these needs and make it possible to constantly monitor the operations against predetermined standards.

In industries where the pressure of competition is less and there is less motivation to control costs to the same degree as in those industries which face a rigid price due to competition, the state normally regulates business behaviour by placing ceilings on prices. This gives a similar motivation or exerts similar pressure as in competitive situations for businesses to control costs and improve their efficiencies.

These pressures force firms in these economies to develop techniques and train manpower to cope with the problem of cost control. We need to emphasize that these skills are developed over time and not inborn. We need to emphaise also that there is the motivation to undertake such developments.

No studies have been undertaken in Kenya to determine whether standard costing is used.

For that reason, there was no knowledge, when this research was undertaken, of the extent to which this technique is used. This endeavour is an attempt to fill that gap. The hypothesis for this research was: that standard costing is not used to a great extent in Kenya. Corollary hypotheses were: (i) that where standard costing is used, the gap between theory and practice will be wider than in developed countries; and (ii) that standard costs would not be found to be used in financial statements.

A justification for all these was felt to be that there is lack of enough competition to give a necessary motivation or exert enough pressure for rigorous cost control; and directly or indirectly, also to pressure and necessitate the training of skilled manpower. Lack of manpower and lack of funds were also considered justifications for the hypothesis and its corollary hypotheses. It was felt that the general level of development was still such that these justifications would hold true.

6.2 SUMMARY

The first part of the study measured the extent of the use of standard costing in terms of the numbers of firms that use against those that do not use the technique. This part revealed a very small extent of the use of the technique. Only 22% (23) of the responding (104) companies use standard costs. This upholds our hypothesis. Firms that did not use standards costs relied on budgetary control. The limitations of budgetary control without standards have been discussed fully in beginning chapters.

The findings indicate that there is a positive relationship between industry size and the use of the technique. This seems to support our justification that lack of competition is responsible for the limited application of standard costing. This position is further supported by the fact that the technique started in the latter years when our industrial sector had grown substantially.

Lack of manpower also emerges as a significant factor. This upholds our justification that there is lack of expertise which limits the extent to which the technique is applied. Lack of expertise here meant or included:

(i) Lack of knowledge of the technique as such;

(ii) A situation where management knows about the technique and would want to adopt it but does not have the manpower to man the system; and,

(iii) A situation where management knows the technique, has adopted it, but the practice lags behind the theoretical developments.

Such reasons as inflation, and the small sizes of firms, also, dominate the reasons given for not using standard costs. These can only suggest a lack of thorough knowledge of the technique — situation (i) above.

Whereas reasons (i) and (ii) above were mainly revealed by part I of the study, (situation) (iii)

was revealed in several sections of part II of the research, which investigated the way(s) in which the technique was used in different companies.

In part II, lack of expertise, and lack of competition are evidenced in several parts of the study. In respect of standardization of factor inputs (direct material, direct labour, and manufacturing overhead), only 50% of the respondents have standards for all factors. An investigation into the reasons for limiting the use of standard costs this way by the other 50% reveals that this is partly due to lack of motivation.

With respect to setting standards, the study (table 5.6) reveals that a sizeable number of managements are not motivated to aim for a level of activity that "squeezes out" all forms of inefficiency; and they settle for such relaxed levels as normal or expected actual capacity through lack of knowledge or consciouosness of strick cost control, or sheer complacency. For the same reasons, a good number (table 5.7) are satisfied with less accurate techniques of setting standards such as using statistical analysis and data of past performances and past experiences.

In this section, lack of expertise is clearly demonstrated by the heavy dependance on imported personnel for the establishment and installation of standard costs.

87.5% of the respondents did not use their standards for minimizing clerical labour (and cost) because they either did not know that standards could be used for that purpose or they did not see the need. 57% delayed direct material variance isolation; 80% delayed direct labour variance isolation; and 75% delayed manufacturing overhead variance isolation. That practice has lagged behind theoretical advances is again evidenced by 50% (of the 16 interviewed) not integrating their standards and 87.5% of those that have integrated them not using them for inventory valuation; the main reason given being that of maintaining books at actual costs. The theory that nothing else but actual costs are good and proper still prevails with only one company using standard costs for inventory valuation. It can only be hoped that this illusion with actual costs will gradually be cleared and that managements will become aware of the extra benefits that would accrue, and the little they would lose, if they used standard instead of actual costs. They need to be

aware of the fact that their counter parts in developed economies are increasingly adopting standards for inventory valuation; and that in Kenya there is no legislation that prevents the use of standard costs for that purpose.

Lack of competition has been assumed as given in this study and needed no justification or support. This position may be attacked by many who know that the government has instituted price control, and presumably, thereby rendering price as fixed as in any competitive situation - A situation which motivates or pressurizes firms to improve their efficiencies and cost control. It is contended here that the system of price control in Kenya has worked counter to its own ends.

Through discussions with some respondents, it was found that the price controller in fact fixed a price given by the manufacturers in the sense that manufacturers prepare their budgets and determine what they expect their prices to be in the following year or period. Then they take it up with the price-controller, showing him how increases in their input prices necessitate or make it imperative that they increase prices. In most cases they succeed in

convincing him, although delays are experienced and, sometimes, increases short of that required granted.

(Both the delays in granting price increases and the granting of increases less than those requested by the manufacturers can, and sometimes do, result in at least a fall in budgeted profit, and at worst a fall in actual profit. We need to notice, however, that these will lead to a motivation for companies to try and avoid the fall in budgeted and/or actual profit by asking for a higher price than what they actually require, and starting the negotiations much earlier so that a price increase, when ultimatley it is allowed (by the price controller), will be in good time and closer to, if not equal or more than the required minimum.)

We need to notice two things here. First, that the price controller bases his decisions on cost figures given by the producers, which already include inefficiencies which could have been squeezed out if stiff cost control methods were used. Second, that the price controller has no other standard, anyway, for refusing or granting a price increase. It is not unusual, therefore, that manufacturers prevail over him.

The argument here is that the extent to which the price controller places ceilings on producer prices (or in other words, the extent to which producers are price takers) is very limited.

The mere fact that lack of manpower is upheld in this study suggests something about finance. We need funds to train manpower. However, it is interesting to notice that managements do not take lack of funds as playing any significant role in limiting the extent to which standard costing is used. In several parts of the interviews where finance (were it considered a problem) would have been mentioned, it was not. Even in the standardized questionnaire (Table 5.11) where respondents were asked specifically about finance, the responses show finance as "unimportant". In fact some respondents went so far as saying that it was irrelevant. A possible explanation to this is that management do not see manpower training and development as their responsibility and therefore availability or lack of funds for that purpose is irrelevant as far as they are concerned. The researcher has no reason to suspect or believe that there is a deliberate attempt or general tendency to underrate the importance of finance by the companies in this respect.

It is difficult, therefore, to conclude that lack of funds does or does not justify the little extent to which standard costing is used in Kenya.

6.3 CONCLUSION

On the basis of what this study has revealed, we can make a few conclusions:

1 - That lack of competition, and lack of expertise provide some explanations as to why standard costing is not used to a great extent in Kenya.

2 - That the use of standard costing is an increasing function of economic advancement. With the growth of the industrial sector tighter business conditions, and higher educational standards, more and more manufacturing firms will use the technique.

3 - That the adoption of standard costs is necessary for rigorous cost control and the efficient allocation of (scarce) resources. It is necessary, therefore, that a conscious effort is made to expedite the adoption process.

6.4 RECOMMENDATIONS FOR BROADER POLICY ISSUES

It was mentioned earlier that the efficient allocation of resources is desirable. So that the state also takes a keen interest in seeing to it that this is achieved. Price control was instituted for this reason. The failures of this institution have been referred to above. One alternative is waiting and hoping that, with industrial growth and tighter business conditions, things will sort themselves out. But this alternative is undesirable because it is too slow. It is recommended here that more positive results be sought by more rigidity of price control. This will ensure a faster shaping-up of our companies. A similar result could be achieved by relaxing import restrictions and thereby increasing competition, but this would jeopardize the balance-of-trade position.

The training of manpower cannot be left to the University of Nairobi (in this case, faculty of Commerce) and other public institutions alone. Therefore, the above measure should be coupled with a strong restriction on the importation of expatriate personnel. For example, such importations should be for fixed periods of 2 - 3 years.

except where the training of local counterparts would need more time. The requisition to recruit an expatriate should be accompanied by / include the name and qualifications of a local counterpart who should take over at the expiration of the specified period. This should oblige our private sector to absorb more of our B. Comm. and other graduates, and should also make managements see training of manpower as part of their contribution to the development process of this country.

The faculty of commerce may make a positive contribution by hosting management seminars. These would go a long way in propagating some of the new ideas in management techniques. Both staff and perhaps MBA students could be deployed for this purpose. This would indeed provide a cheap but invaluable service to the private sector. There is no doubt that increased communication between the university and the private sector would also help increase the relevance of our educational system.

6.5 RECOMMENDATIONS FOR FURTHER STUDY

This is a pioneer study into standard costing in Kenya, and therefore, it is by no means an exhaustive

exercise. It is merely an introduction for further research in this field. The study was limited to manufacturing industries, employing 100 or more people, and located in Nairobi, Mombasa, Eldoret, and Thika. For even more conclusive results, a similar study may be carried out to encompass all the manufacturing companies of this size.

Secondly, this study indicates that lack of competition and lack of expertise are the factors responsible for a low usage of standard costs. It does not, however, say to what extent each of the factors are responsible. A study that separates the role played by competition from that played by lack of expertise should be very useful to the policy makers and academicians.

APPENDIX I

The University of Nairobi,
Faculty of Commerce,
MBA Programme,
P.O Box 30197,
N A I R O B I.

..... 1980

The General Manager,

.....

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Dear Sir,

May I ask for your help in a research I am undertaking? I am trying to find out a few important facts about standard costs in Kenyan economy.

I am sending this letter to you and a cross-section of Managers of major Kenyan manufacturing firms, and asking you to say whether your firm uses standard cost accounting technique at all (i.e. predetermined standards for material, labour and/or overhead).

The aim is to try and identify these firms that use standard costs with the view to visit them and carry out questionnaire interviews with the cost/management accountants between now and the month of May. If you do use standard costs, I should be obliged if you indicated also whether you would be willing to receive me in your firm.

I hope that you will agree to help.

Yours faithfully,

APP. II.

QUESTIONNAIRE

CODE

1. (a) What is the principal industry of your company? ____

(b) Is your company locally owned, multinational subsidiary, or partly local and partly multinational

LOCAL	
MULTINATIONAL	
PARTLY OWNED	
OTHER	

2. What type of costing do you use?

BATCH	
JOB	
PROCESS	
COMBINED JOB/PROCESS	
OTHER	

3. (a) Do you use standard costing for:

	YES	NO
DIRECT MATERIAL		
DIRECT LABOUR		
MANUFACTURING OVERHEAD		

(b) If no for any, why not? _____

_____

4. (a) How many different products do you manufacture? _____

(b) Do you have standards for all of them YES / NO

(c) If no, why not? _____

_____

5. (a) Mainly for what reasons do you use standard costing?

(i) As a help in budgeting _____

(ii) As a means of exercising control _____

(iii) To put a consistant value on technical variances _____

(iv) To simplify bookkeeping _____

(v) Other (briefly explain) _____

_____

(b) Are there some other uses to which you (your firm) would like to put your standard costs, but for some reason(s) are unable to do so? YES / NO

(c) If yes in (b) what use(s) _____

_____

_____

6. (a) What level of activity forms the basis for your standards?

	DIRECT MATERIAL	DIRECT LABOUR	MANUFACT. OVERHEAD
(i) Expected level of activity			
(ii) Normal level of activity			
(iii) Ideal level of activity			
(iv) Practical capacity level			

If other, briefly explain _____

_____

_____

(b) What are the main reasons for your choice of the particular level?

(i) Expected _____

_____

(ii) Normal _____

_____

_____

(iii) Ideal _____

_____

_____

(iv) Practical Capacity. _____

_____

_____

7. (a) What techniques do you use for establishing your standards?

	DIRECT METERIAL	DIRECT LABOUR	MANUFACT. OVERHEAD
(i) Engineering/Time & motion studies			
(ii) Past experience			
(iii) Statistical analysis			
(iv) Other			

If other, briefly explain _____

_____

_____

(b) Do you know of any other technique(s) for establishing standards? YES / NO

(c) Do you think or feel that the technique you are now using is the best for your company? YES / NO

(d) If no, what prevents your use of the best technique? _____

_____

_____

8. (a) Do you use standard costs for comparative purposes only or do you carry them through the books (i.e. operating them all the way up to the general ledger)? _____

_____

_____

(b) If for comparative purposes only, what is the main reason(s) for not integrating them? _____

_____

_____

(If 8(b) is applicable answer only 10, 11, 14, 15, 16, and 17 thereafter).

9. (a) Upon receiving direct materials from the suppliers, do you enter them into direct materials account at standard or actual costs (in other words, do you start recognizing variances upon receipt or do you recognize them later at issue)? _____

_____

(b) Explain the procedure with respect to direct labour _____

_____

_____

(c) Again, explain the procedure with respect to manufacturing overhead _____

_____

10. (a) What use do you make of the variance?

(i) Control _____

(ii) Judge managerial performance _____

(iii) None _____

(b) If (i) only, why not (ii) also? _____

_____

11. Is variance investigation -

(i) done thoroughly and regularly? _____

(ii) done at random? _____

(iii) largely ignored?

12.(a) If you get variances that you feel are due to POORLY SET STANDARDS, how do you dispose of them?

(i) Transfer directly to cost of goods sold or profit and loss _____

(ii) Allocate to W.I.P. and finished goods inventories before being transferred to cost of sales _____

_____

(b) Please briefly explain your reasons _____

_____

_____

13.(a) If you get variances that are due to ACTUAL INEFFICIENCIES how do you dispose of them?

(i) Transfer directly to cost of goods sold or profit and loss _____

(ii) Allocate to W.I.P. and finished goods inventories before being transferred to cost of sales _____

_____

(b) Again, briefly explain why _____

_____

_____

(c) Do you treat small (minor) variances any differently?

YES / NO

(d) If yes, explain how and why _____

_____

_____

14. How often do you revise your standards? _____

_____

15.(a) What main behavioural/human relations problems does your comapny meet in operating standard costs?

(i) _____

(ii) _____

(iii) _____

(iv) _____

(b) What other problems (technical etc.) does your company meet in operating standard costs?

(i) _____

(ii) _____

(iii) _____

(iv) _____

16. (a) For how long has your company been using standard costs? _____

(b) How old is your company? _____

17. To what extent are the following a problem to your efficient operation (use) of the standard costs?

N.B. (USE THE GIVEN CODES)

EXTENT	TO A VERY GREAT EXTENT	TO A GREAT EXTENT	TO LITTLE EXTENT	TO A VERY LITTLE EXTENT	NOT AT ALL
CODE	(4)	(3)	(2)	(1)	(0)

PROBLEMS	CODE
(a) Lack of funds	
(b) Lack of expertise to man the system	
(c) Inadequate supervision and administration	
(d) Standards installed too rapidly	
(e) Bad organization	
(f) Expecting too much from the standards	
(g) Inadequate accounting system	
(h) Inadequate statistics of past operations	
(i) Inadequate cost system	
(j) Expecting results too soon	
(k) Failure to obtain cooperation (from staff)	
(l) Failure of top management to give active support	
(m) Failure to analyze results & ascertain cause of variances	
(n) Too many forms - too much detail	
(o) Routine procedure not sufficiently adequate	

Please use the reverse side for any necessary explanations

APPENDIX III

AGES OF RESPONDING (104) COMPANIES

AGE CLASS (YEARS)(Xi)	FREQ. (fi)	CUM. FREQ.	Xi	Xifi	Xi^2fi
0- 9	16	16	4.5	72	324
10-19	34	50	14.5	493	7148.5
20-29	32	82	24.5	784	19208.0
30-39	9	91	34.5	310.5	10712.25
40-49	7	98	44.5	311.5	13861.75
50-59	3	101	54.5	163	8910.74
60-69	2	103	64.5	129.0	8320.5
70-79	1	104	74.5	74.5	5550.25
TOTAL	104			2338	74036.0

$$\bar{X} = \frac{\Sigma Xifi}{\Sigma fi} = \frac{2338}{104} = 22.48 \text{ years}$$

$$s^2 = \frac{N\Sigma Xi^2fi - \Sigma(Xifi)^2}{n(n-1)} = \frac{104\,(74036) - (2338)^2}{104\,(104-1)}$$

$$= \frac{2233500}{10712}$$

$$= 208.5$$

$$S = 14.44$$

APPENDIX 1V

TEST FOR CORRELATION BETWEEN INDUSTRY SIZE AND USE OF STANDARD COSTING

INDUSTRY SIZE	COMPANIES THAT USE STD.COSTS				
(x)	(y)	xy	x^2	$(x-\bar{x})^2$	$(y-\bar{y})^2$
15	3	45	225	49	1.515
3	3	9	9	25	1.515
1	1	1	1	49	0.591
17	4	68	289	81	4.977
7	1	7	49	1	0.591
1	0	0	1	49	3.129
8	1	8	64	0	0.591
7	2	14	49	1	0.053
4	2	6	16	16	0.053
6	0	0	36	4	3.129
3	0	0	9	25	3.129
30	6	180	900	484	16.90
2	0	0	4	36	3.129
104	23	338	1652	820	39.32

$\frac{\Sigma x}{n} = \bar{x} = 8$

$\frac{\Sigma y}{n} = \bar{y} = 1.769$

Given:

$\Sigma y = na + b\Sigma x$

$\Sigma xy = a\Sigma x + b\Sigma x^2$

Substituting:

$$23 = 13a + 104b \quad \ldots\ldots \text{(i)}$$

$$338 = 104a + 1652b \quad \ldots\ldots \text{(ii)}$$

Solving for b:

(i) x 8 : $184 = 104a + 832b$ ..... (iii)

$338 = 104a + 1652b$ ..... (iv)

(iv) - (iii), $154 = 820b$

$\therefore b = \frac{154}{820} = 0.1878$

Given:

$$r^2 = b^2 \frac{\Sigma(x - \bar{x})^2}{\Sigma(y - \bar{x})^2}$$

where r^2 is the coefficient of determination; and r is the coefficient of correlation.

Substituting:

$$r^2 = \frac{0.0353\ (820)}{39.302} = \frac{28.946}{39.302} = 0.7365$$

$r = 0.8582$

$\therefore$ There is a strong correlation between industry size and the use of standard costing.

FURTHER TEST FOR LINEAR RELATIONSHIP BETWEEN X AND y

Given:

$$t = r\sqrt{\frac{n - 2}{1 - r^2}}$$

t being student's distribution

$H_o : p = 0$

$H_1 : p \neq 0$

Let $\alpha = 0.05$

Substituting:

$$t = 0.8582\sqrt{\frac{13 - 2}{1 - 0.7365}} = 0.8582\sqrt{41.74573}$$

$$= 5.5449$$

$(13 - 2) = 11$ degrees of freedom

$t = 2.201$

at $\alpha = 0.05$

Since $5.5449 > 2.201$, the critical value of t for 11 degrees of freedom and $\alpha = 0.05$ (two-sided test), Ho is rejected, and we conclude that x and y are linearly related.

APPENDIX V

COMPARISON BETWEEN AGES OF THE COMPANIES AND THE AGES OF STANDARD COSTING IN THEM

	AGES OF THE COMPANIES (YEARS) (Xi)	DURATION OF USAGE OF STD. COSTS IN THE COMPANIES (yi)	DIFFERENCES BETWEEN THE AGES (TIME LAPSE) (Xi - Yi)	
1.	6	1	5	
2.	10	8	2	
3.	10	10	0	
4.	11	2	9	
5.	11	5	6	
6.	11	10	1	$\frac{54}{11}$ = 4.9 yrs.
7.	11	11	0	
8.	13	13	0	
9.	17	14	3	
10.	20	2	18	
11.	20	10	10	
12.	31	15	16	
13.	54	6	48	$\frac{109}{3}$ = 36.3 yrs
14.	60	15	45	
TOTAL =	285	122	163	
MEAN =	20.36	8.71	11.6	

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