ACCOUNTANCY:

Management Companion

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CHAPTER TEN

THE PREFERENCE FOR VARIABLE COSTING TECHNIQUE IN THE VALUATION OF INVENTORY ON GENERAL PURPOSE FINANCIAL STATEMENTS

*PAT DONWA AND SYLVESTER ERIABIE**

INTRODUCTION

For external reporting on financial statements, a company is required to value inventory by the absorption costing technique. Financial statements that include inventory valued at variable cost only may be subject to qualification by external auditors, if the valuation differs materially from what it would be under absorption costing technique. Because of these uncertainties variable costing technique (i.e. direct costing) is often confined to purposes of internal reporting only.

Variable costing claims theoretical support for it being used in the valuation of inventory by virtue of the generally accepted accounting concept that period costs should be recognized in the profit and loss account of the period in which they are incurred as against the absorption costing technique which claims that inventory value should carry along with it part of the period costs to future accounting period.

Using absorption costing technique, the part of the period cost (i.e. fixed cost) embedded in inventory is not an asset from the view point of 'Accounting Theory', since it does not have future service potential (i.e. revenue producing power), in the sense that fixed costs incurred during one accounting period have no bearing on re-incurring the same kind of fixed cost in subsequent periods. A cost is viewed as an asset if it can be shown that it has future service

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potential as generally viewed in accounting theory. The international Accounting Standard Committee (IAS) Framework for the Preparation and Presentation of Financial Statements (1989, F19) defined an asset as "a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise". This buttresses the basic principle that 'an asset is only an asset if it is a source of future economic benefit'. (Lewis & Pendrill: 1981, 73).

CONTROVERSY ON THE USE OF THE TERMS 'VARIABLE COSTING', 'MARGINAL COSTING' AND 'DIRECT COSTING'

Though, the terms 'direct costing', 'marginal costing' and 'variable costing' is used interchangeably, there has been some disagreement on these terms, each being used in place of the other to reflect the same meaning.

Although direct costing has earned the acceptance of many accountants and businessmen, particularly those in the industry, the status of the method as to general acceptance still remains doubtful. As pointed out by Brown and Howard (1982), controversy has arisen not only over the usefulness of "marginal costing" but even what the phrase means. Horngren (1982) has argued that more accurate terms would be variable or marginal costing since the approach includes an inventory that has not only elements of direct materials and direct labour but also variable indirect manufacturing costs. Batty (1978,282) states that "the main reason for use of 'direct costing' seems to be that it is a description of long standing".

In their contributions to the debate; Drury (1996) and Horngren et al (1994) have argued that neither direct costs nor marginal costs are quite the same as variable costs. Direct costs are those costs that can be specifically identified with a product (i.e. those costs that are easily traceable to the products). They are direct materials, direct labour and direct expenses. However, *in some situations direct labour may not vary in the* short run with changes in output. So, to use the term 'direct costing' as meaning the same as variable cost when it specifically includes a non-variable item in the short run (i.e. direct labour) is not at all appropriate.

Drury (1992) went further to argue that using the term "marginal costing" is also inappropriate. Economists use the term to describe the cost of producing one additional unit. To him an application of this definition may lead to fixed costs being included in a situation where the production of an additional unit will result in an increase in fixed costs, for example the appointment of an additional supervisor, or an increase in capacity due to the purchase of additional machine. This differs from the accountants' definition of marginal costing.

Many accountants use the term 'marginal cost' to mean 'average variable cost' (Lucey: 1986, 171). This implies the variable cost per unit of product or service. To the accountant, marginal cost is particularly appropriate for short run decisions in a particular firm. While to the economist, it is used as an explanation of the cost behaviour of firms in general (Lucey: 1986, 172).

As marginal cost may be interpreted in different ways by accountants and economists, it is better not to use the term when referring to stock valuation (Drury: 1992, 188-190).

From the above explanation, it is clear that the use of the term "variable costing" is more appropriate; hence it is being adopted in this paper.

VARIABLE COSTING AND ABSORPTION COSTING

Variable costing adopts a system in which all direct and variable manufacturing overhead costs are allocated to the products. Variable costing is an approach to product costing that relies heavily upon cost behaviour analysis and the contribution approach to income determination – an approach in which only variable manufacturing costs are accumulated and attached to products. Put differently, it is a method of inventory costing in which all direct manufacturing costs and variable manufacturing overhead costs are included as inventoriable costs, fixed manufacturing overhead costs are excluded from inventoriable costs and are costs of the period in which they are incurred.

Proponents of variable costing are of the view that fixed manufacturing costs are incurred on time basis and not depend on the units produced. In other words fixed manufacturing costs expire with the passage of time regardless of production activity and that these costs are incurred for the benefits of operations during a given period of time. This benefit is unchanged by the actual level of operations during the period and the benefits expire at the end of the period. For example, the fixed overhead costs like rent and supervisory salaries will still be incurred irrespective of whether any actual production takes place.

On the other hand, absorption costing which is sometimes referred to as full costing, views product costs as consisting of both the variable and fixed costs of production. In other words, it refers to a system in which all manufacturing costs both fixed and variable are allocated to products.

Advocates of this method rest their argument on the principles that the fixed costs are assigned to the product because each unit benefits from the capacity provided by fixed costs. The time period in their view is purely incidental to the operation of the business. It is further argued that since revenue is derived from the sale of the product, all production costs regardless fixed or variable must be matched with revenue in the period of sale.

The primary difference between the two methods is in the treatment of fixed manufacturing cost. Absorption costing includes fixed manufacturing cost as part of the cost of goods sold and part of closing stock. Marginal costing on the other hand does not treat fixed manufacturing overhead cost as part of product cost. It treats it as a period cost and consequently no fixed overhead cost is included in the closing stock for the period. All the fixed manufacturing costs of the period are charged against profit and loss account as expenses.

In general terms, absorption costing emphasises the distinction between production costs and all other costs. On the other hand, variable costing emphasises the distinction between fixed and variable costs. Each values inventory accordingly.

Variable costing justified

Variable costing is accepted as being proper, right and reasonable by the accrual concept, which is one of the generally accepted accounting concepts. The accrual concept is described in SSAP 2 as follows: 'revenues and cost are accrued (i.e. recognised as they are earned or incurred, not as money is received or paid), matched with one another so far as their relationship can be justifiably assumed, and dealt with in the profit and loss account of the period to which they relate. This implies that for any accounting period, the earned revenue and all the incurred costs that generated that revenue provided they both relate to the period, must be matched with one another and shown in the profit and loss account. This concept justifies the variable costing technique which conforms to the accrual concept evidenced by charging period costs against profit and loss account of the period to which they relate as only those costs, which are a function of output should be deferred as inventory costs and matched against future revenue.

Advocates of variable costing contend that fixed manufacturing overhead is incurred to provide the capacity to produce. These fixed costs are incurred every year and are not a function of production volume (i.e. output). They claim that the fixed portion of manufacturing overhead is not really a cost of production but only a standby cost which facilitates production and which must be incurred regardless of the level of production or sales.

In theory, variable costing views the fixed cost of a business as a constant quantity that is incurred during a period of time. When the time period expires, the fixed costs incurred expire with it. Accordingly, the whole of the fixed cost must be matched with the revenue of the period, as this is the only source of revenue from which the fixed costs can be recovered. The next accounting period will incur its o fixed overhead. Therefore, it is regarded as irrational to de in the inventory account any portion of the previous peri fixed costs. Moreover, fixed costs are the result of a spe kind of management decision hence it is reasona accord a different accounting treatment to the fixed variable portions of manufacturing overhead.

Variable costing is also justified on the basis of wh termed 'Contribution Theory'. Sales revenue is said consist of two parts:

(1) A reimbursement of total variable costs, and
(2) The remainder of the sales revenue, which contri to the coverage of fixed costs and profits.

Applying this to the measurement of incom accords with economists' concept of the margin clearly demonstrates that profit does not accrue on a basis. No profit regardless of price is realised until costs are fully recovered.

THEORY ACCEPTANCE.

From the foregoing explanation of variable cost there is ample evidence to accept variable costing tech as a generally accepted method of accounting. But th as regards theory acceptance as given by the Americ Accounting Association (1977) concluded that a universally accepted basic accounting theory does not as at this time. Instead, a multiplicity of theories has and continues to be proposed. The Basic Accounting Th of the American Accounting Association (1966), also that there is no generally accepted accounting theory justify accounting standard. It follows that a compen generally accepted accounting principles does not exis

This suggests that those efforts by various grou formulate a unified theory in accounting is mispla may not yield the desired result. But what exists in financial accounting literature is a collection of theo which can be arrayed over the difference in user-environment specifications (AAA: 1977, 1-2).

OFFICIAL PRONOUNCEMENTS ON THE ACCEPTABILITY OF VARIABLE COSTING

There have been official pronouncements on the acceptability of variable costing. For instance, the committee on Accounting and Auditing Research of the Canadian Institute of Chartered Accountants (CICA) states:

> *Sometimes certain costs are excluded in determining inventory values... in some cases; fixed overhead is excluded where its inclusion would distort the profit for the year by reason of fluctuating volume of production. (CICA: 1950, 2).*

One can deduce from the above statement an indication of acceptability of variable costing. Also, the Institute of Chartered Accountants in England and Wales (ICAEW) recognizes the acceptability of variable costing. It states:

> *Where, however, the levels (of production or sales) are subject to materials fluctuation and are not kept in balance, it may be decided to exclude these (period) expenses from stock on the ground that as they could be incurred whatever the levels of production or sales, their inclusion in stock has the effect of relieving the profit and loss account in the period when they are incurred of expenses which it should fairly bear and of charging these expenses in a later period to which they do not properly relate. (ICAEW: 1960, 3)*

Fautier and Underdown (1982, 525-533) states accountants who advocate the use of absorption costing for external financial statements deprive investors of a useful analytical device and make the task of interpreting th results more difficult".

McGregor (1961, 269) notes that: "In arriving at th cost of work in progress it was undesirable to indul what is no better than guesswork: and a large part of th absorption cost method appeared to the learned jud involve the 'wildest' guesswork".

Zimmerman (1995,482) opines that "Absorptio cos systems can distort reported profits as production volu change, creating for managers to over produce and thereb create larger inventories."

Wright (1962) reports that upwards of 40% of US company that use variable costing (i.e. direct costing internally also use the method in external finan statements. Moreover, among the remaining companies th use variable costing, there is a strong preference for exter reports, which agree with internal financial statements.

ACCOUNTING THEORY'S VIEW ON THE INCLUSION OF FIXED COST IN INVENTORY VALUATION.

The fundamental issue here is to ascertain whet fixed costs added to inventory falls within the definition of a asset as generally viewed in accounting theory. Accou theory has a comprehensive definition of assets. Th International Accounting Standard Committee (IAS framework for the Preparation and Presentation of Finan Statements (1989,F19) defined an asset as 'a resou controlled by the enterprise as a result of past events an from which future economic benefits are expected to flow t the enterprise. It should be noted that the key elemen ar control (not ownership), future economic benefits and th need to be able to identify a past transaction or event whi gave rise to the asset. A major element of these thr elements is that a cost is viewed as an asset if it can b shown that it has future economic benefits that are if it ca be shown that it has revenue-producing powers, or tha will be beneficial in some ways to operations in futu periods. One would say that assets have future econo benefits to the extent that they save costs in the future. This is called the costs obviation concept and advocates of variable costing have used it to argue that variable costing is superior to absorption costing. Wetnight (1958:84), for example, has argued that variable costing meets the future benefit test better than absorption costing in the following way:

> *If this test of future benefit is applied to the two methods of costing it can be seen that variable costing most closely meets the requirements. In the first place there is a future benefit from the incurrence of variable costs. These costs will not need to be incurred in a future period. However, in the case of fixed costs, no future benefit exists since these costs will be incurred during the future period no matter what the level of operations.*

From a variable costing viewpoint, variable-manufacturing costs satisfies the future benefit of cost obviation criterion since inventory produced but unsold in one accounting period relieves subsequent periods of further outlays. Fixed manufacturing overheads fails the cost obviation test for future benefits since the fixed costs incurred during one accounting period have no bearing on incurring the same kind of fixed costs in subsequent periods. No part of the fixed production costs of one year should be carried forward as an asset to the following year as these costs do not result in future cost avoidance.

ADVANTAGES OF VARIABLE COSTING TECHNIQUE OVER ABSORPTION COSTING TECHNIQUE.

[illegible]lehinwa (1992,292) identified the following as advantages of variable costing technique;

1. By eliminating fixed costs from the product cost, it facilitates the preparation of responsibility-based

income statement for production managers, th enabling them to act upon variances and discrepan under their control.

2. Under variable costing, end of year production po cannot be used to manipulate profit. Under absorp costing, it is possible to produce more units than be sold for the sole aim of charging greater part of fixed cost to closing stock, thereby increasing repo profit. Such practice is not possible under vari costing since all the fixed costs are charged to pr and loss account irrespective of the number of un sold.

3. Since profit is normally recognized at the time of s and not at the time of production, the pro marginal costing moves with level of sales and hen is a better measure of index of changes in the fir fortunes.

4. It eliminates the need to allocate, apportion and absorb fixed overhead costs into product.

5. Variable costing technique of contribution margin d the following:
   (i) It assists in determining the product profitability
   (ii) It assists in price fixing especially when the firm working below capacity.
   (iii) It assesses the effect of a change in volume and mix.

However, in addition to the above, our view is th variable costing information enables both management a investors to plan and make economic decisions. This vie supported by Lucey (1986,176) who opines, "The use marginal costing principles (i.e. variable costing) in plann decision making is universal and is of considerable importance."

CLUSION

The issue at stake is as to whether variable costing nique should be used in the valuation of inventory in erence to absorption costing technique on external ncial statements.

From earlier explanations, it is clear that valuation of ntory using the absorption costing technique has its nesses. Carrying forward an expired part of fixed rhead to subsequent accounting period has a tendency of orting the profit for the year by reason of fluctuating ume of production.

From accounting theory's view point, including part of e expired fixed cost in the value of inventory using the rption costing technique is wrong because that expired ed cost portion embedded in the value of the inventory is ot an asset since it does not have future economic benefits y virtue of the fact that it does not have the capacity to save ost in the future, moreso, it does not have any bearing on curring the same fixed costs in subsequent periods.

The conclusion summarily, is that since variable sting technique can aid both management and investors in king more valuable economic decisions, it should be idered in valuing inventory for external reporting on ncial statements in preference to absorption costing nique, which is being currently adopted.

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