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THE CASE FOR STRATEGIC MANAGEMENT ACCOUNTING: THE ROLE OF ACCOUNTING INFORMATION FOR STRATEGY IN COMPETITIVE MARKETS*

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Abstract

A review of two economic theories is utilized to provide theoretical support for the greater possible involvement by accountants in what has been called strategic management accounting. One of these theories is concerned with the underlying characteristics of enterprise products. It suggests that there is a need for accountants to consider the cost structure of not only their own firm but of all enterprises in the relevant market and of potential entrants. It also suggests that costs can not be considered in isolation from demand factors. The second theory to be reviewed is concerned with whether a firm's cost structure permits its market strategy to be sustainable in the face of potential entry. This theory again emphasizes the intertwining of demand and cost factors and the need to consider these factors simultaneously. The use of this theory allows a new perspective to be taken to cost behaviour which is especially suited to high technology manufacturing.

A universal cry is that firms must become more competitive on a global basis if they are to survive. Haas (1987) provides a summary of these views. A discussion of some of the accounting implications and some further references is provided by Kaplan (1983). Prescriptions for improving competitiveness have recently focussed on the benefits of using new technologies, such as flexible manufacturing systems, including robotics and CAD/CAM, to improve productivity and to yield enhanced product attributes. Firms are being urged to utilize new systems of production, such as Just-In-Time manufacturing, which are often argued to be used far more intensively by sophisticated competitors in other countries.

A number of writers have sought to reform management accounting by seeking to measure the incremental value generated by these processes and similar methods and by advocating accounting methods which reflect better the cost structures associated with these new processes and methods than conventional allocation methods, see, for example, Cooper & Kaplan (1987). Further evidence of this view, drawn from a survey of practice, is given by Berliner & Brimson (1988). Arguments for focussing on the factors causing costs to vary are based on evidence that the product costs generated by existing costing systems often seem to be widely at variance with prices and implicitly therefore with the costs of competitors.

These revised accounting methods, like their predecessors, focus on data internal to the firm even though the perceived need for the new methods of operation are market driven by a believed imperative to at least match competitor skills and methods of operation. It can be argued that it is on final goods markets that strategies to overcome competition need to be focussed. It is in these markets that customers have to be retained and captured from other firms and where competitors strive to compete, not just in terms of lower product cost, higher quality and better delivery times, but over the whole range of strategic variables.

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ARGUMENTS IN FAVOUR OF STRATEGIC MANAGEMENT ACCOUNTING

A further and, perhaps, even more crucial revolution in management accounting may be required to help enterprises meet global challenges in product markets. This suggests that there is a need to release management accounting from the factory floor to allow it also to aid directly in meeting these market challenges. Such a reorientation would permit management accounting additionally to focus on the firm's value added relative to its competitors. It could also aid in monitoring the firm's performance in the market place using a whole range of strategic variables over a decision horizon sufficiently long for strategic plans to come to fruition. These concepts form the core of the new concept of strategic management accounting (Simmonds, 1981; Govindarajan & Shank, 1988). Some of these ideas are already being utilized by some leading firms, especially, perhaps, in Japan. Allen (1986) provides evidence from a British company's experience and Schoenfeld (1986) gives some indirect evidence on the practices of some multinational companies.

Such a perspective on management accounting seeks to provide information concerning the firm's markets and on its competitors, with the emphasis being placed on the long term.

A working definition of strategic management accounting is:

The provision and analysis of financial information on the firm's product markets and competitors' costs and cost structures and the monitoring of the enterprise's strategies and those of its competitors in these markets over a number of periods.

Previous attempts to justify this approach have tended to rely upon its commonsense appeal. More compelling arguments in the area of product strategy and cost structures are now available, building on two sets of recent results in economic theory to provide new perspectives on management accounting.

The first of these new theoretical supports for strategic management accounting is provided by an economic perspective which sees economic goods as being desired not for themselves but rather for the underlying attributes or characteristics they provide to the consumer, see Lancaster (1966, 1979), who seeks to incorporate these attributes into models of market equilibria. With this perspective, goods are seen as bundles of characteristics. It is these attributes or characteristics yielded by commodities which are valued in the market place and which give goods their value. This perspective allows these attributes to become central in the formulation of enterprise strategies concerning matters such as market fit and product diversification.

It also suggests that the accountant might play a more important role in strategic decisions, especially in diversification decisions by costing attributes and monitoring the performance of these attributes over time. This perspective provides a clear role for strategic management accounting because as will be shown the costs of the attributes provided by the enterprise's products are often crucial to the sustainability of the enterprise's product strategies in that entry by competitors is unprofitable in the face of these strategies. It will also be argued that the cost and other market characteristics of the attributes of products are intertwined and cannot be evaluated separately. This means that accountants cannot restrict their attention only to cost information concerning the enterprise's products but must also encompass strategic information in their reports. This provides one reason why accountants might venture into the somewhat unfamiliar area of strategy formulation and control that is represented by strategic management accounting.

The second novel economic perspective that is used to support a wider role for management accounting is a recently synthesized body of knowledge in the economics of industrial organization. This theory of contestable markets presents the conditions for a firm's price and output strategy to be sustainable in the face of potential competition, concentrating on cost conditions (Baumol *et al.*, 1982, 1988). Advocates of contestable markets theory argue that

the fear of potential competition can, under certain conditions, be relied upon to regulate the exercise of monopoly power by incumbent firms. Manes *et al.* provide a very clear introduction to this theory from an accounting perspective (1985, pp. 78–92). This theoretical perspective will be used here to determine cost and other conditions that ensure the sustainability of the enterprise strategies not only in the face of both potential competition from outside the market, which is the concern of these who subscribe to the contestable markets school, but also potential competition from existing market rivals. Thus, in this article the findings concerning costs in contestable markets theory will be applied to what have been traditionally called competitive markets in economics (Shepherd, 1984, pp. 574–578). The essence of contestable market theory is the need for maintainable cost advantages over rivals if the enterprise's strategies are to be sustainable. This finding provides additional support for strategic management accounting because it requires that the accountant extends cost analysis beyond the firm and report on the cost structure of rival enterprises to help management make sensible decisions in competitive markets. The two theories used here complement each other; one emphasizing product characteristics other than cost and the other being concerned with product costs.

Both of these bodies of thought stress the need for market orientated information for decision-making. Expanding management accounting to encompass elements of these approaches provides a new focus that positions management accounting to contribute directly to what Porter (1985, pp. 10–26) has called the three generic strategies to ensure sustainable competitive advantages. Attribute analysis firstly contributes to what Porter calls the differentiation strategy where the enterprise seeks to provide a unique product and also to the differentiation variant of the focus strategy. Following this, Porter's second generic strategy, enterprises focus on a narrow segment of an industry. The cost elements of contestable markets theory will be used to examine how the firm can be sure that it possesses a competitive cost structure and can be aided in following either Porter's third generic strategy of cost leadership in an industry or that of focussed cost leadership for a narrow industry segment. Utilizing a more organizational perspective, Child (1987, p. 30) has also identified these strategies, though he sees them rather as strategic challenges which require the use of looser structured organizations in order to achieve greater flexibility in organizational response. He sees these organizational structures as relying heavily on developments in information technology, including wider and more detailed access to information external to organizational units (1987, p. 40). Strategic management accounting might be expected to contribute to this requirement for additional and differently focussed information.

The analysis in this article argues that this information should aid firms in responding to competition and to changes in consumer demand, both of which are pressures that originate outside the enterprise. Of course, some firms already collect and analyse this type of information, particularly some large companies in Japan (Hiromoto, 1988, p. 23). This analysis may not be comprehensive as organizational responsibility for these endeavours tends to reside with the marketing or product planning function and the accountant may not therefore play a major role in this process. The importance of costs in strategic management and their intimate connection with other strategic factors in the two theories discussed suggests, however, that a stronger case can be made for strategic management accounting than presently exists in the literature.

Adopting a strategic perspective emphasizes that each of the firm's strategies for products and markets should yield the customer some benefit except where strategic actions are meant to enhance the firm's monopoly power (Shepherd, 1984, p. 574) by increasing, for example, the number or height of barriers to entry (however defined, Shepherd, 1984, pp. 581–582). Even such reinforcements to monopoly power often have to be founded on giving customers benefits which other firms cannot easily provide.

Customer benefits other than price, and there-

fore cost, will be considered first. Cost structures will then be discussed. The aim is to see how far strategic management accounting may contribute to the management of all these variables.

Concern with consumer benefits suggests that a wide set of techniques are required to produce a detailed analysis of the firm's products and the offerings of its competitors. As Porter (1985) and other corporate strategists recognize, competition is to be expected across a wide range of product variables, not simply price. Indeed, price for a given package of benefits contained in a product may not be a decision variable for many firms in strongly competitive markets. It is well known from economic theory that such prices are determined by technology where, as might be expected, all firms share a similar technology. Prices are set by the enterprise with the least cost technology where technologies differ. Firms not using least cost technology may remain in the market if their products offer benefits to the consumer not yielded by the least cost firm or because of any cost advantages they have over the least cost firm at lower volumes.

In the next section of this article the contribution of product attributes to the firm's market strategy is considered. The following part looks at the contribution of the firm's cost structure to its market strategy. The implications of each section for strategic management accounting are then considered.

PRODUCT ATTRIBUTES

Here products are seen as being comprised of a package of objective attributes or characteristics which they offer to consumers (Lancaster, 1979, pp. 16–36). It is these attributes that actually constitute commodities and which appeal to consumers. Demands for goods are derived demands stemming from their underlying characteristics. These attributes might include a variety of quality elements, such as operating performance variables, reliability and warranty arrangements, physical items, including the degree of finish and trim, and service factors like the assurance of supply and of after sales service. It is these elements which differentiate products and appeal to the consumers. The firm's market share depends on the match between the attributes provided by its products and consumers' tastes and on the supply of these attributes by competitors. The focus of the analysis will be on what is called "horizontal product differentiation" in economics (Lancaster, 1979, pp. 27–28; Shaked & Sutton, 1986a, pp. 107–108). This term characterizes the setting where a group of products differ only in terms of their detailed specification. With this perspective, the consumer is seen as having decided on how much to spend on a given group of similar goods and therefore as determining which set of characteristics to buy. Vertical product differentiation where goods are assumed to differ in terms of the total quality they offer (and their prices) will be considered briefly later. Here the quality of the goods bought are normally expected to depend on income (Shaked & Sutton, 1986a).

For ease of analysis, it will be assumed initially that the amount of any product which can be purchased is infinitely divisible and can be combined with any other product in such a way that the fruits of the combination are merely the sum of the benefits which each of the products would yield individually. Cosmetic and food goods provide examples. Products which do not fulfil these assumptions, such as consumer durables which do not always come in a range of sizes, will be considered later. The entertained assumptions mean that any desired size of each product and combinations of products may be obtained up to the total of the budget (or that purchases in sequential periods can be appropriately varied between products).

Figure 1 shows two such characteristics for a good. The amount of one characteristic, say 1, obtained per monetary unit is shown on the vertical axis. The amount of a second characteristic, 2, obtainable per monetary unit, is shown on the horizontal axis. Products combining these characteristics in different proportions are shown in the figure by lines from the origin, such as OA and OB. Moving outwards along a line represents spending more money on a product,

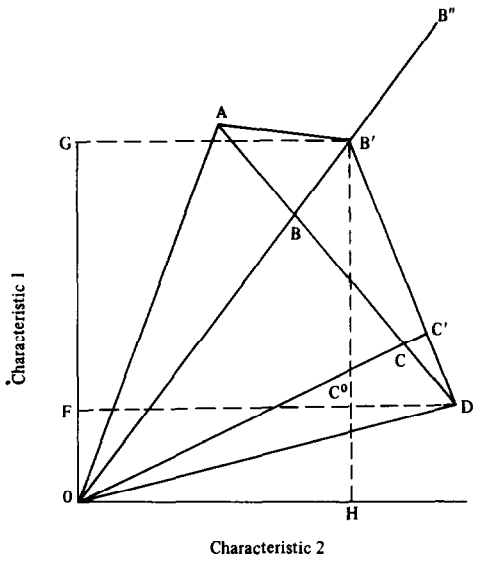

Fig. 1. Characteristics of commodities.

thereby obtaining an increase in the amount of the given product and of the quantities of each of the two characteristics obtained. The slope of each line reflects the proportion of the two characteristics combined in the product. Four products, A, B, C and D, offering different proportions of the two characteristics are initially assumed to be available. These are shown by the points A, B, C and D on the lines OA, OB, OC and OD, respectively. The other products shown in the figure will be referred to as the analysis proceeds. Product A specializes in giving a relatively high amount of characteristic 1. Product D provides a higher amount of the other characteristic but at the expense of a relatively lower amount of 1. Products B and C yield more even mixtures of the two characteristics.

The line ABCD shows the maximum amount of both attributes obtained from spending the same total mount of money on one or more of the available products. If the price of product C^0, which is shown below product C in the figure, is the same as for the other products, product C^0 represents an inefficient way of buying the characteristics that it offers. Its price is the same as that of product C and yet it offers less of both characteristics. It therefore will not be purchased. The line ABCD thus represents the efficiency line or frontier for all consumers constrained to spend the amount of money represented by this line. Points on this line show the maximum amount of a specific bundle of characteristics which can be obtained for the amount of money represented by this line.

With infinite divisibility and combinability, any bundle of the characteristics shown on the efficiency line can be obtained by distributing the available amount of money between the products in a specific way. For example, the characteristics offered by products B and C in the figure can be obtained by buying different specific proportions of products A and D. Where regular repeat purchases of a good are made, such as with many consumer durables, divisibility over time may have the same effect. Opting for one product for some period of time and another good for another period allows diversification between products which are not of themselves intrinsically divisible.

The line ABCD also represents the budget line for consumers. Increasing the amount to be spent on the goods would move this budget line outwards along axes without changing its shape. Similarly, reducing the amount to be spent would move the line backwards towards the origin of the figure.

The slope of the budget line shows the relative price of the two characteristics. Thus, the shape of the efficiency frontier depends on product prices as well as the quantities of characteristics offered by products. If the price of product B, for example, decreased, the quantity of the two characteristics per monetary unit it offers increases and more would be spent on it. This effect is represented in the figure by moving product B further rightwards on its product line to, say, point B^I in the figure, reflecting its lower cost relative to other products for the bundle of characteristics offered. Changes in the prices of products and in the amount of characteristics obtainable for a given price would change the shape of the efficient frontier. With this perspective, product characteristics and product cost (and therefore price) can be seen to be

deeply intertwined. None of these matters can be considered in isolation.

The market share accruing to each product will depend on consumer tastes and on product prices. Each product will attract that clientele of consumers who like the bundle of characteristics it offers, conditional on its relative price. The firm's strategic decision with this model is to determine the amount of the two characteristics which will be offered and the product price. Again for ease of analysis, markets with no barriers to entry and no possibility of entrance deterrence strategies will be initially assumed. In this setting, a change in market share can be won by offering a different bundle of characteristics, that is by differentiating products, by offering a greater bundle of characteristics at the same price by, for example, introducing cost saving technology and by supplying an existing set of characteristics at a lower price. Product B^I, for example, offers more of the two characteristics than product B and reflects a cheaper way of obtaining the two characteristics. Its introduction to the market should therefore attract demand from the other products depending on competitors' technology and cost structures (and, more generally, on their strategic behaviour in the face of a challenge). The amount of any increase in market share will also depend on consumers' preferences (more strictly, on the elasticity of demand with respect to changes in characteristics).

The reason for the increase in the market share of product B^I is indicated by the new efficiency line AB^ID in Fig. 1 which reflects the introduction of product B^I. This new product wins a place on this line because it represents an efficient way of purchasing characteristics. Although it yields the same mix of characteristics as the old product B, the previously most efficient way of obtaining this particular bundle of the two characteristics, it offers more of these than did product B. If consumers can purchase mixtures of the products (by, perhaps, buying smaller versions of the products), the introduction of product B^I would mean that product C would no longer be purchased.

Indeed, no combination of products on the previous efficiency line would now be purchased. Product divisibility means that a suitable combination of products B^I and D will yield more of each of the characteristics than were offered by product C. Mixtures of these two products would place consumers on the B^ID segment of the new efficiency line. If the previous customers of product C wished to retain the proportion of the two characteristics offered by product C, they could purchase a mix of products B^I and D. Such a mixture, which is shown by the point C^I in the figure, would yield the erstwhile consumers of product C more of both characteristics in the same proportions as previously. Such switches between products represent an efficiency effect as consumers seek to fulfil their preferences in the most efficient way (Lancaster, 1966, p. 142).

This process would redistribute C's market share between the two products. As product B^I is relatively cheaper than D, we would expect B^I's market share to increase more than would the market share of D, following the demise of product C (a substitution effect similar to that in conventional micro-economics where following a relative price change more of the now cheaper good will be consumed). Similarly, the introduction of product B^I would also change the market share of product A and rule out all previous combinations of other products involving output A, reflecting changes in the relative prices of the commodities.

New technologies that allow additional combinations of characteristics will yield new products represented by lines to the left of A or the right of D in the figure — whether such products are worthwhile depends on the market share they would attract. Products which mimic the characteristics of existing products have to sell for no more than the price of these existing products. Similarly, new products which offer combinations of characteristics which combine or span the characteristics offered by existing products must be priced so that they are no more expensive than the existing products which they span. In both cases the market shares of all such products will be indeterminate. This will be the case unless there are barriers to entry or entry

prevention devices which yield determinate results.

Strategic implications

The above analysis seems to describe the way in which some Japanese companies determine their product strategy (Hasegawa, 1986, pp. 59–60). These companies are said to choose a bundle of characteristics which is larger and richer than those offered by many competitors and then determine a price based on a target cost aimed to give them the desired market share. Cost savings are then targeted over time in order to ensure the sustainability of their characteristics and price strategies (Hiromoto, 1988, pp. 23–24) and to increase their market share over time.

Figure 1 indicates, however, that there is no need for a firm to match other competitors in terms of one characteristic believed to be dominant to survive in the market. Thus, the current concern to maintain market share by matching the Japanese quality level may be misplaced when this is taken to be not lack of defects in the manufacture of consumer goods (which really refers to a method of organization yielding cost savings) but rather in terms of uses by the consumer. Though, of course, a lack of defects in manufacture is likely to be related to a low level of defects being experienced when the products are in the consumer's hands, especially with intermediate goods or parts. Substantial specialization on one characteristic, say the quality of product operating performance, as is often suggested by commentators, moves the product towards, say, the vertical axis of Fig. 1 but does not necessarily increase market share. This depends on consumer preferences. To be sure of surviving, a firm must offer a different combination of characteristics than any other firm unless demand for any combination cannot be met at minimum possible average cost by one firm or plant, thereby allowing more than one supplier to exist. Thus, costs, product characteristics and market strategies are seen to be highly intertwined.

The presentation so far has assumed that any size of each product could be obtained and could be combined with any other product. A familiar example from finance theory of the use of the above assumptions is the mean–variance model of portfolio theory, with average return and variance being the two relevant characteristics (Hirshleifer, 1970). Where products are not divisible in this way, outputs which otherwise would be inefficient in terms of the mixture of characteristics they provide may well survive in the market. Where, for example, only products, A, B^1, C^0 and D are available, all may obtain a market share, depending on consumer preferences.

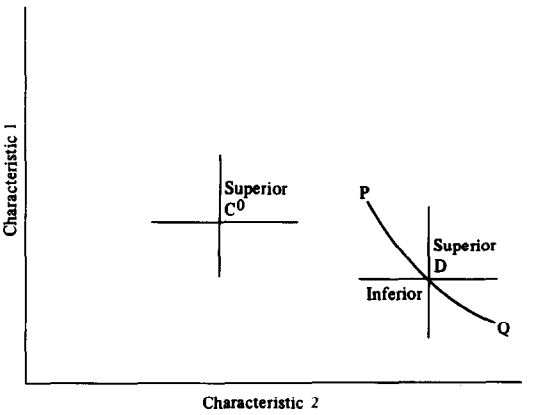

Fig. 2. Superior and inferior bundles of characteristics.

Figure 2, which looks more directly at consumer's preferences, explains this. It reproduces a segment of Fig. 1 which contains C^0 and D. The lines through C^0 and D, by looking at only the characteristics offered, partition potential alternative bundles to C^0 and D into categories, depending on whether they are superior or inferior to these products or whether the choice is indeterminate. Those bundles which would be contained in the right hand quadrants above C^0 and D are superior to products C^0 and D respectively in terms of preferences. Bundles above and to the right of products C^0 and D offer more of both characteristics than C^0 and D respectively. Simi-

larly, items below and to the left of the two products are inferior in terms of the amount of the two characteristics they offer.

Products in the other two quadrants relating to products C^0 and D may be inferior or superior to these two products depending on consumer preferences. Firms may need to do market research to ascertain the siting of their products in this area. The line PQ through these two quadrants relating to product D illustrates this. Products to the left of this line (the indifference curve through product D) would be regarded as inferior to product D. Those to the right would be ranked as superior to product D.

Where mixtures of products cannot be obtained, the firm supplying product C can survive if it yields a combination of characteristics desired by some consumers. However, such firms are unlikely to be able to resist enterprises that enter into their superior region, that is the area which lies to the right of a line like PQ in Fig. 2. This inability to resist entry arises because firms to the left of the efficiency line are charging a higher price for units of characteristics offered by firms on the efficiency line which are either charging less for the same technology or using a lower cost technology. It seems not unreasonable to assume that such entry will move the products offered towards what would be the efficiency line assuming divisibility. Moreover, where firms are facing uncertain demand this means that in decision-making they have to act as if products are infinitely divisible because *ex ante* consumer demand is seen as likely to be spread between goods, reflecting the likelihood attached to the purchase of each of the goods and that any position on the efficiency frontier is therefore seen as attainable to each consumer. This, too, will compel firms to offer products which are on the efficiency line.[1]

Extensions

The above approach can easily be expanded to include a larger number of products and a larger number of characteristics (Lancaster, 1966, pp. 136–140). The presentation here is restricted to two characteristics to allow a simple graphical treatment. Expanding the number of characteristics allows other strategic problems to be treated. For example, the choice between producing a high quality and high priced product or a low quality and low priced product requires a comparison between a product offering a large number of characteristics with a product which yields but a few characteristics (Shaked & Sutton, 1986a). Vertical differentiation of this type requires that firms consider the choice of the consumer budget to be spent on a commodity prior to undertaking the above analysis. Such a consumer decision can be illustrated by modifying Fig. 1, using a simplified example. Assume that the consumer's choice is to buy a quantity of product A which is now assumed to be not very rich in characteristics, shown by point A in the figure, or an amount of product B^{II} which yields a fuller set of characteristics, shown by point B^{II} in the figure. Ignoring price, product B^{II} is clearly superior to product A. In contrast to the earlier assumptions, assume that a unit of product A lies on a lower budget line to a unit of pro-

[1] In estimating their share of uncertain demand, firms will have to estimate the probability of each consumer choosing their products. In a market with two products, demand will be shared amongst one or other of the products. The estimated demand by a consumer for product one is found by multiplying the consumer's total market demand by the believed probability that product one will be chosen. The demand for product two is similarly found by weighting this total demand by one less the probability that product one will be chosen (one or other product must be chosen). The total expected demand by a consumer is a weighted average of the consumer's expected demand for the two products. From the perspective of a firm, the consumer's demand is therefore given by $Qc = P1Q1 + (1-P1)Q2$, where Qc is the total quantity of the two products demanded by the consumer. The first term on the right is the expected demand for product one where $P1$ is the probability that output one will be chosen and $Q1$ is the amount of product one which would be demanded if the consumer spent all available resources on this product. The second term on the right yields the expected demand for product two. The probabilities assigned to consumer choices in this way may differ reflecting how tastes differ among consumers. Consumer choices represented in this way mean that consumers are seen by firms as choosing as if there were complete divisibility of products. Firms with products not on the efficiency line will in decision-making therefore forecast that they will not obtain a market share because *ex ante* such products are a costly way of obtaining a given bundle of characteristics.

duct B^{II}. Here, the consumer's problem is to choose the amount it is wished to spend on the product generally which may be expected to depend heavily on income (Shaked and Sutton, 1986a, b). This choice requires a comparison of the incremental utility, if any, yielded by product B^{II} relative to purchasing product A with the incremental cost of this product relative to product A. This decision is in the province of standard economic analysis. Competitive analysis of the type discussed earlier among similarly priced goods will still have to be undertaken however rich the bundle of characteristics offered by competitive outputs.

The implications of product attributes for management accounting

In order to survive in a competitive and horizontally differentiated market, a firm must offer a product which is not dominated by other products. This means that it must offer the cheapest way for the consumer to obtain the bundle of characteristics being offered. For an existing product to maintain its market share, it must offer, at least, the same amount of one characteristic as would the products offered by any actual or potential products and it must offer more of the other. Product D in Fig. 1, for example, yields the same amount of characteristic 1 as all the products lying along the line FD but yields more of the second characteristic. In a multi-characteristic setting, a product to survive must yield at least the same amount of each characteristic as its competitors unless it generates sufficient extra of one or more characteristics to offset the lower amount of one or more of the other characteristics it offers.

These conditions must apply for all volumes of output, otherwise competitors can enter at a lower volume. Excluding barriers to entry and entry prevention strategies, these characteristics must stem from a technological advantage or advantages, which suggests that such benefits may be short-lived.

This market orientation suggests that the accounting and finance function needs to be moved nearer the market and the organization structured so that this activity can work closely with functions with similar concerns. This supports Child's point that the organization needs to be restructured so that it can take advantage of external information and more easily distribute this around the firm (1987, p. 30). This would allow new strategies by competitors to be more quickly detected. Child also suggests that further organization restructuring is necessary to ensure a sufficiently flexible response.

Figure 1 indicates that cost advantages may dominate other technological advantages. This suggests that there is a need to involve accountants in decisions of this type by costing attributes and monitoring these costs over time. The introduction of cost saving technology allows the producer of product B to move to product B^{I} and to dominate a large number of other possible combinations of the two attributes. Product B^{I} dominates all those potential products in the rectangle $OGB^{I}H$. This may understate the domination allowed by product B^{I} because this increase in the market share of the product may allow further cost reductions flowing from taking advantage of any consequent economies of scale. Similarly, cost saving technology which allowed product B^{II} to be produced would permit the firm supplying this output to dominate the whole market. Barriers to entry and entry preventing strategies would inhibit such a takeover of the whole market.

This approach to market strategy would seem to give strong theoretical support to the fundamental thrust of strategic management accounting. The major emphasis of such an approach is that the firm needs to look beyond the firm to its market or markets. In order to site itself in a market for characteristics, the firm needs to estimate the market demand for the product being offered and the elasticity of demand to changes in product characteristics, in addition to the price elasticity for each characteristic. Demand estimates may be particularly important where the possibility of selling a more complex product for a higher price is considered.

The firm should also determine and monitor the strategy of each rival firm and of potential competitors even though they follow or will follow very different product differentiation strate-

gies to the firm. This is because any given product may be very sensitive to, at least, some changes in competitors' strategies. This sensitivity can be shown to depend very strongly on the number of characteristics, the assumed distribution of products along the spectrum of consumer preferences and on the distribution of consumers across these products. Classically, a uniform distribution of consumers over products comprised of two or three characteristics where the products are uniformly spread along the preference spectrum can be shown to mean that a given enterprise is only sensitive to the actions of firms on either side of it along the spectrum (Lancaster, 1979, chapter 3). Sensitivity to rivals' actions quickly becomes greater as these assumptions are relaxed. Archibald & Rosenbluth (1975) show, for example, that entertaining four or more characteristics means that in principle the average product might have a large number of direct competitors. Figure 1 illustrated this by showing that cost reductions in product B mean that product C was entirely erased from the market. However, extra market share was gained not only by the new output, product B^1, but also by product D (to which no changes had been made).

Each firm needs to determine the cost structures and technologies used by all firms in the industry. This illustrates yet again the independency between product characteristics and cost which strengthens the need for accountants to take a strategic approach to accounting information. Comprehensive information of this type is again necessary because of the sensitivity of market position to new strategies by competitors. Data requirements of this sort may not be as difficult to fulfil as might be expected. Competitive pressures will mean that many firms will use a common technology and have common cost structures.

Each firm will also need to consider the sustainability of its product characteristic portfolio and gather information relevant to this. Sustainability requires that each firm must continually monitor that it is able to offer a superior product relative to its actual and potential rivals. Moreover, for a bundle of characteristics to be sustainable, this combination must be producible at a cost no higher than any other firm or firms. This means that no other firm or set of firms, either in existence or which could come into existence, has technological advantages in the product of the sustainable firm's commodity or commodities. Such cost advantages must subsist for all possible volumes of the commodity that might be offered, otherwise competitors could enter at lower volumes. It is therefore necessary for each firm to know its own technology and that of all its actual or potential rivals. This again may not be as excessive an information requirement as it might seem. It is likely that firms already offering goods on the market are using the optimal technology. An existing firm seeking information concerning the least cost technology available to actual and potential competitors therefore needs to consider its cost structure over the total range of possible output. The firm would still need to consider all costs outside its normal output range. The only other need is to monitor any new technologies which may be introduced. The costs of the most efficient potential competitors using such technology must be monitored and used in the planning calculations and in performance appraisal.

The above argument concerning the information requirements for sustainable products generally assumes that there are no barriers to entry and that the market structure does not allow the use of strategies to repulse entry (Salop, 1979; Dixit & Stiglitz, 1977), such as the threat of using predatory prices (Scherer, 1976). Firms will still have to adopt the approach suggested above where these assumptions do not apply because they will need to know whether their strategies are sustainable given any barriers to entry and entry deterrence strategies available to them. In this setting it would be necessary for the firm to collect information on the barriers to entry possessed by all firms in the industry and the responses of these firms to actual or potential competition. It will be suggested later that as many barriers to entry arise from cost advantages, this is another important role for accountants which has generally been overlooked in the literature.

COSTS IN COMPETITIVE MARKETS

The theory of contestable markets (Baumol *et al.*, 1982) explores the implications for the industrial structure of markets which have free and immediate entry with costless entry and exist and no instant response to entry. It seeks to demonstrate that in these conditions the fear of potential competition will cause monopoly and oligopolistic industries to behave so that they only earn a normal rate of return. The implications of this theory for the regulation of industries which are not fully contestable is very controversial (see Shepherd, 1984).

The theory of costs on which this approach is based is not, however, controversial (see the references given in Shepherd, 1984, p. 572, and Spence, 1983, pp. 983–986). This theory emerges from attempts to determine those properties of cost structures which are required to make it possible for the price and quantity strategies of incumbent firms to be sustainable in the face of potential competition (which here will be taken to include competition by firms already in the industry). This is just the cost information required for firms either determining their strategy in the market or considering whether such a strategy is sustainable. The previous sections emphasized the importance of costs in strategic decisions and indicated that product characteristic decisions could not be made without considering costs.

The setting in this part of the article considers more explicitly the firm's volume of output and explicitly allows this to vary with costs not being constant over the ranges of output. The theories to be reviewed are very complex. The aim of the present analysis is to indicate the underlying logic of the approach and to describe in an elementary way those elements of the approach which are likely to be important in strategic management accounting and, indeed, in management accounting. No pretence at rigour is made. For a comprehensive exposition, see Baumol *et al.* (1982), whilst for a general introduction, see Baumol (1982) and Sharkey (1982), especially chapters 4, 5 and 7. Manes *et al.* (1985) give a very good exposition from an accounting perspective.

The presentation will start by looking at single product producers and will concentrate on cost conditions by assuming, in common with the literature being followed, that the enterprises being considered have already determined the optimal package of characteristics for their products. This allows the presentation to be framed in terms of products rather than characteristics, though much of what is said about multi-products applies to multi-characteristic products, unless the technology used requires that characteristics are produced jointly and in fixed proportions.

Single product producers

The output and price strategy of a single product firm would be sustainable against competition in a contestable market, if the incumbent firm could produce its output at a lower cost than could any competitor which sought to enter its market at any volume in a way which allowed this competitor to expect to cover its total costs. Any unique characteristics of its product would not defend the firm against entry because costless entry and exit are being assumed. The conditions for sustainability are complicated and a single set of necessary and sufficient conditions are not available for a multi-product setting.

An understanding of cost sustainability is most easily approached by considering a monopoly supplier. Sustainability requires that a monopolist uses the most efficient technology (which is assumed to be available to all) and experiences economies of scale for all possible levels of output. These conditions ensure that no other firm can enter at any volume and produce at a lower cost. A more precise way of saying this is that the monopolist's costs must be lower for each output than the costs if the same output were to have been produced by two or more firms. Cost functions having this characteristic are called subadditive (see Baumol *et al.*, 1982, chapters 3 and 4). Strictly, subadditivity goes beyond economies of scale because the condition that a monopolist can produce a given volume cheaper than two or more other firms can

be met even in the face of decreasing returns to scale at some volumes. What cost subadditivy means for a single product firm producing a differentiated product is that the technology it is using must yield costs below the costs of potential rivals for all outputs. Demand for the firm's output must therefore be such to allow it to produce at a lower cost than can its rivals, irrespective of the volume they may plan to produce. That is, if competitors could produce at a lower cost than the incumbent for lower volumes, demand must be such that the incumbent can avoid such lower volumes and can produce at those higher volumes which give it a cost advantage. Cost and demand are again seen to be intertwined and must be considered together. A cost advantage at high volumes is of no advantage if market demands means that such volumes cannot be achieved.

If potential rivals have access to lower cost technology, the incumbent firm's existing price and quantity strategy will not be sustainable. In the context of a market for a single product with multi-characteristics and a number of suppliers, the firm's market share may be sustainable if the firm possess a flat bottomed average cost structure, over a range of output (before rising beyond this range). This may be a sufficient cost condition for sustainability. This will be the case where actual or potential rivals experience greater costs than the firm up to and including this range and demand is such that it can be met where average cost is constant. Additional plants or firms would be sustainable where demand is too great for a single firm to fulfil.

This result explains why more than one firm may exist in a market for a specific product. Free entry and the costless entry and exit assumptions of the theory means that competitive pressure will cause each incumbent firm to produce that volume which it can produce at the lowest possible minimum average cost. More than one firm or plant will therefore exist in the market where demand is greater than the minimum cost output for one firm. In this way, industry demand will therefore be met at the lowest cost.

That the firm's survival depends on its costs being no higher than those of its rivals requires for decision-making purposes that the firm should gather information to determine not only its own cost structure over all volumes, but also those of its rivals. An example of a firm having a relative cost advantage is given by the introduction of product B^I in Fig. 1. Here cost advantages mean that a supplier of product B^I can enter the market at a lower cost than product B and completely remove this product from the market. As indicated earlier, the introduction of product B^I may also change the market share of other products. This example illustrates and strengthens the earlier conclusions that firms need to collect not only cost information but also information about the industry's demand curve and those faced by their rivals. A supplier with relatively low costs for some volumes will have a sustainable market share only if it faces a sufficient demand to allow it to produce at those volumes for which it has relatively lower costs.

Multi-products

One of the major contributions of contestable market theory is to investigate costs for a multi-product firm in order to help determine when its price and quantity strategy is sustainable. Many of the findings here seem to be of general applicability and not confined just to contestable markets, which many see as having very restrictive application (Shepherd, 1984). There are a variety of definitions of products that are used in economics. Here a product is taken to be an item which has a clearly distinguishable demand. This definition is utilized because it allows the analysis of the earlier sections to be augmented by looking at cost in more detail. The cost theory presented here is much richer than that which was utilized above and that which is usually presented in the accounting literature. It can cope with a firm producing dissimilar products, the costs of which are related in complex ways.

The characteristics of multi-product cost structures and, indeed, of multi-characteristic products seem not to have been investigated in any detail in economics, though the antecedents are greater, perhaps, than some modern accounting critics allow. Without venturing back

in time too far, see, for example, Lewis (1949), chapter 1 of which provides a very modern treatment of overheads. Alchian (1959) directly addresses modern concerns by considering how the length time of production runs and the total volume to be produced may affect costs. A concern with the cost of multiple products is timely because one of the important characteristics of advanced manufacturing technology is the ability to produce a number of products using the same manufacturing facilities. Similarly, advances in information technology and management information systems mean that many products and departments of the enterprise share information. Aspects of multi-product manufacturing have recently been investigated in accounting by a number of authors such as Cooper & Kaplan (1987) and Foster & Horngren (1988). However, these studies seem to concentrate on more accurately costing each batch of an individual product in the face of the assumed increased costs of greater product diversity. In contrast, the cost theory associated with the contestable market literature emphasizes the cost complementarity between products. It does this in order to determine the cost conditions which aid in obtaining sustainable price and output strategies. These conditions are similar to but more complex than those for a one product firm. The first required cost condition for a multi-product firm to maintain sustainability is similar to that for economies of scale. The problem with multi-product output is how to measure the output of goods with dissimilar physical characteristics. This difficulty can be overcome by determining the behaviour of total or average cost as the volume of a mixture of products comprised of a constant proportion of products is changed. The average cost for such a mix of output shows how this cost varies as the volume of the constant mix of products is changed for a constant mixture of multiple products. The units used represent an arbitrary bundle of a particular mixture of outputs. This cost concept is called a ray average cost because it shows the behaviour of average cost along a line or ray representing a cross-section of the cost surface as the volume of product units is increased keeping the proportion of products constant.

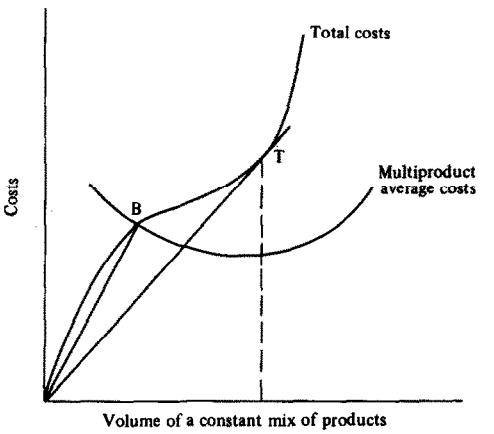

Fig. 3. Multi-product costs.

The behaviour of total cost and ray average cost is shown in Fig. 3. Costs are shown on the vertical axis and the volume of a constant mixture of outputs is shown on the horizontal axis. This type of average cost has the same relation with total cost as in conventional cost analysis. The average cost for any output is shown by the slope of a straight line from the origin intersecting the total cost curve, such as OB and OT in the figure. OT shows the minimum average multiple product cost because the slope of OT is tangential with the total cost curve. Economies and diseconomies of scale for multi-product output are defined in the normal way as the percentage rate of decline or increase in multi-product average cost with respect to the output of a constant product mix. Cost subaddivity can be defined generally in the same way as for the single product case. The existence of economies of scale are not sufficient to guarantee that the firm's market cannot be entered by multi-product competitors organized in a different way. Such firms may be able to produce products at lower cost because of cost complementarities. Such com-

plementarities refer to economies of scope which result from the simultaneous production of several outputs by a single firm rather than by each product being separately produced by a specialist firm.

Joint products provide one reason for expecting economies of scope. Perhaps of more interest to management accounting is the presence of inputs which are readily shared in the production of several different outputs, such as many items which are usually regarded as overheads. Common information systems and shared services, such as the personnel function, provide further examples. Porter, while addressing the interrelations between the business units within an enterprise, regards such complementarities as crucial for obtaining competitive advantage (1985, part 3). Economies of scope depend very heavily on the enterprise's organization structure. A highly compartmentalized organization may find it difficult to obtain any of the benefits that may flow from economies of scope. Achieving any such benefits requires a fine line to be drawn between centralization and decentralization (Lawrence & Lorsch, 1967). There is a requirement to trade off the greater flexibility from loose coupling and the economies of scope accruing from greater centralization. Accountants with a strategic perspective may be able to help here by costing economies of scope.

The effect of economies of scope are shown in Fig. 4. The figure portrays what happens to costs in the presence of economies of scope for a given two product output level, that is where the total volume of the two products is held constant while the mix between the two products changes. The figure indicates cost behaviour as the product composition of the output is changed from concentrating entirely on one product to all of the other. Point X′ in the figure reflects the cost of producing only product X and point Y′ reflects the cost of manufacturing only output Y. The costs of specialized production of the two products are thus shown by points X′ and Y′. The curve X′Y′ shows how total cost changes as the output mix is varied with total volume being constant. There are clear economies of scope because the cost of producing a mixture of the two products is cheaper than specialized production. The figure is drawn so that producing half as much of each Y and X yields the minimum cost of production as shown by point M. The importance of this is that even if actual or potential competitors possess greater economies of scale in single output production than the incumbent firm, such benefits may be offset by economies of joint production accruing to the incumbent firm. The results of such economies could leave the price and output strategy of the incumbent firm sustainable in the face of competition, at least in terms of cost.

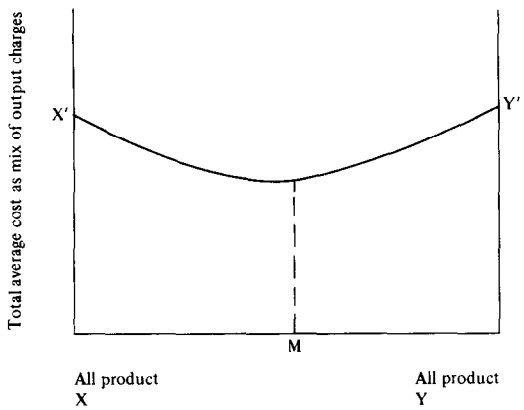

Fig. 4. Economics of scope.

Another way of looking at economies of scope is to calculate the total cost for a given output of products on the assumption that one good is produced separately using the best method of specialized production without the benefits of being produced together with the other products which still retain such benefits. There are economies of scope if the cost of producing the given output of the total portfolio of products together is less than producing one product separately and the remainder together.

Goods which do not benefit from cost complementarities but which show strong economies of scale when produced on their own

may be sustainable if such economies dominate any economies of scope possessed by potential rivals. Such a product gives the firm manufacturing it a clear competitive advantage. This assumes that the multi-products firms cannot restructure so as to obtain such economics of scale. The indentification of such products and the collection of information about relevant cost structures in strategic management accounting may therefore be important to the firm. The maintenance of such advantages must be continually monitored. The possession of the ability to easily replicate the portfolio of characteristics offered by competitors may also alleviate the effects of any economies of scope offered by competitors.

There is great controversy about the importance of economies of scope. Porter implicitly dismisses them, saying that economists have not yet operationalized them nor yet determined the conditions that nullify them (1985, p. 328). He prefers to consider them as part of the interrelationships between the business units making up an enterprise. Others believe that the economies of scope experienced by enterprises explain why firms exist. In a reasonably perfect market, multi-product firms would not exist if specialist firms could produce goods more cheaply (Panzar & Willig, 1981). Teece argues that the importance of economies of scope depends on whether enterprises are organized so as to more efficiently deal with cost interrelationships than the market (1982). This makes the organizational structure of enterprises of crucial significance and links accounting very strongly with organizational matters. The need is for an organizational structure that can encompass economies of scope and obtain their fruits in a more cost efficient way than using the market. In another paper, Teece (1980) identifies two conditions where economies of scope may require the existence of multi-product firms, relying in part on empirical evidence from the oil industry. These conditions relate to the recurrent exchange of shared proprietary knowledge and where a specialized indivisible asset is used in common by a number of products. These are some of the conditions which accountants often observe in firms and are seeking to account for, often without a clear understanding of economies of scope.

A summary of the cost behaviour findings from contestable markets is given below, emphasizing their implications for strategic management accounting.

Cost behaviour in competitive markets

A firm needs to be able to assess a number of cost factors if it is to expect that its cost structure will not militate against the sustainability of its price and output strategy. It must first determine whether it has greater economies of scale in multi-production than its rivals for all outputs and also whether it has any products which are better produced on their own. If it does not possess either of these advantages, it needs to consider whether these disadvantages can be offset by any economies of scope it may possess in multi-product production over all volumes. Cost disadvantages can also be overcome where a unique product or products is offered which is protected by some type of barrier restricting the ability of other enterprises to offer competitive products.

Sustainability may not be guaranteed even where the rigorous cost conditions are met. This is because, as suggested earlier, demand conditions are also important. For example, demand must be sufficient for sustainable volumes to be achieved. This suggests that a strategic management accounting information system needs to encompass demand information and collect all the internal and external cost data discussed above if fully informed decisions are to be achieved. Elements of the theory of contestable markets would thus seem to yield considerable theoretical support for the ideas of strategic management accounting, especially its requirement to look beyond the firm.

Any manager or industrial accountant reading this section may well feel that the information required for decision-making when adopting this perspective on costs is far too burdensome. For the firm seeking to utilize this approach only for cost analysis, some relaxation of these information requirements is possible where the as-

sumptions of contestable markets do not fully apply. If an incumbent firm does have the protection of barriers to entry, then the cost conditions for sustainability become less important for the maintenance of its market strategies. Incumbents possessing barriers to entry may not be so concerned with minor entry into their markets because such entry will not necessarily cause them to become unprofitable as it would with fully competitive markets. Even the prospect of larger scale entry may not be a cause of great concern because incumbent firms may practice or threaten to resort to entry preventing strategies. Such relaxations of the assumptions of contestable market theory will militate against the automatic regulation properties of the theory. They allow incumbent firms interested in sustainability in such conditions to avoid the need to scan the entire spans of the cost structures of either actual or potential rivals. They can rather restrict themselves to the relevant range of outputs where entry would cause the profits of the incumbent firm to be reduced. However, additional information concerning entry conditions and entry prevention strategies in the industry will need to be collected by such firms if they are to maintain the sustainability of their strategies.

The above analysis suggests that information about barriers to entry may be important to the firm's strategy. The final part of the analysis presented here therefore considers the information concerning barriers to entry that might comprise part of strategic management accounting.

BARRIERS TO ENTRY

Although many barriers to entry are cost-based (Bain, 1956), the discipline of management accounting seems to entirely ignore them. Little, if any, mention of them can be found in accounting research or in management accounting textbooks. This may be due to the tendency, alluded to earlier, of management accounting to focus on costs incurred by the enterprise. In contrast, the analysis of cost-based barriers by management accountants requires the adoption of a more external focus because these barriers to entry relate to favourable costs advantages possessed by the incumbent firm or firms relative to potential entrants. Any lack of concern with barriers to entry in management accounting may also be explained either by the perceived stability of these barriers from one period to another or by the view that they are strategic matters to be considered by top management. With this latter view, the provision of information concerning them would seem to fall within the area of strategic management accounting.

Barriers to entry to a market have long been considered crucial determinants of industrial structure. Barriers to mobility between markets and to the exit from markets have been studied intensively more recently. Stigler (1968, chapter 10) and others have clarified the contribution of cost structures to barriers to entry. Baumol *et al.* (1982) emphasize within the context of contestable markets the importance of costs in determining barriers to exit. The earlier analysis suggested that all types of barriers may be of importance in determining the feasible strategic behaviour of enterprises. Any protection they may offer from competition will allow strategies which offer better than normal profits to be sustained against actual and potential competition. Their existence may allow some relaxtion of the rigorous conditions concerning costs which were argued above to be necessary for the sustainability of enterprise strategies.

A comprehensive view of barriers to entry was taken by Bain (1965), who saw these as inhibitions on entry by rivals which allow incumbent firms to obtain monopoly profits. Bain saw these barriers as arising from four main sources, economies of scale, product differentiation, absolute cost advantages and capital requirements. His empirical work (1965, pp. 169–170) suggested that most of these sources of barriers were important to a number of industries and that aggregate barriers which arise from combinations of a number of these sources were of special importance. More recent suggestions for further sources of barriers to entry have included strategic pricing by incumbents, intensive research and development, the mainte-

nance of excess capacity, vertical integration and the existence of major sales networks. Accountants could have a role in providing information to enterprise management about these barriers, if only in measuring their costs. Little in the accounting literature in the past has suggested that accountants should report on these cost elements from the perspective of the competitive benefits that they provide to the enterprise.

More recent commentators have sought to narrow the range of items that may generate barriers by adopting a different definition of what comprises such a barrier (Stigler, 1968; Demsetz, 1982; Baumol *et al.*, 1982). With this view, "a barrier to entry may be defined as a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry" (Stigler, 1968, p.67). This mode of definition avoids the difficulty of identifying and measuring barriers by reference to their results in generating greater than normal profits. With this view, barriers to entry arise only where a potential entrant cannot match, by purchases on the market, the advantages of existing firms. With this view, economies of scale or scope do not constitute barriers where new entrants have access to the same technology as existing firms at the same prices. Any restriction on entry is regarded as resulting from the size of the market being too small to support additional firms when incumbent firms are producing at their average cost. Knowledge of how the spreading of fixed costs yield economies of scale is important in the determination of the cost sustainability of enterprise strategies but not in terms of barriers to entry. With this view of barriers to entry, the only barriers flowing from enterprise cost structures are those resulting from absolute cost advantages (Demsetz, 1982, p.48). Such advantages arise from the "first mover" advantages obtained by existing firms, such as where the cost of obtaining an identical technology to that of existing firms has increased or where potential entrants face licensing costs not imposed on earlier entrants. Accountants may help in evaluating the strength of such barriers by providing the relevent cost information for incumbent firms and that concerning potential competitors highlighting the source of such barriers.

A substantial contribution of Baumol *et al.* (1982, chapter 10) is to emphasize the role of sunk costs in creating absolute cost barriers. The economic concept of sunk costs differs from that usually used in management accounting where text books tend to equate these costs with past historical costs and warn that they should not be used in decision making (Horngren & Foster, 1987, pp. 325–326). Sunk costs in economics are those which cannot be recouped in the market, that is where the factors or resources to which sunk costs relate have little or no opportunity cost in the market. Sunk costs of this type are argued to constitute barriers to entry. The importance of sunk costs may be increasing because of factors such as the firm and locational specific nature of much of modern technology, the need to incur environmental protection costs at the time of installation and the increasing likelihood of decomissioning costs. Potential entrants to an industry in which production involves sunk costs have to incur these costs without any assurance of their recoupment. This uncertainty about recoupment arises because existing firms have already "sunk" these costs, either having paid them or committed themselves to do so in the knowledge that the resources or factors obtained have little or no resale value. These costs can therefore be expected not to figure in the decision making of existing firms. These firms will therefore be willing to stay in the market provided that they can expect to cover their average variable costs. In contrast, new firms will enter the market only if they can expect to recover all costs, including those which incumbent firms regard as sunk.

With this view, accountants should seek to provide information on sunk costs because of the strategic advantages they may bring to the enterprise which possess them. This really requires a continual study of fixed costs because any given fixed cost may be expected to have a sunk component, at least over some short time period. Thus, the role of sunk costs in terms of

generating barriers to entry increases the general importance accorded to information concerning fixed costs because of their importance in maintaining the sustainability of enterprise product market strategies.

CONCLUSIONS

It has been suggested that there may be a role for accountants in helping to provide information for strategic decision making and for the monitoring of strategies. It was argued that some of the information requirements of the two economic theories reviewed can be provided by accountants who adopt a strategic perspective. The first, which emphasizes the characteristics or attributes possessed by products, suggested that information about a number of demand and cost factors appertaining to the attributes possessed by a firm's products and those of its actual and potential rivals was needed for optimal decision making. Accountants may play a role here in costing the characteristics provided by goods and in monitoring and reporting on these costs regularly. Similarly, they may be involved in determining the cost of any package of attributes which is being considered for introduction to the market. However, where a strategic perspective is adopted by accountants, costs may have to be considered in the context of demand factors because of the likely interplay between costs and demand in determining successful strategic conduct when considering product attributes.

Contestable market theory was also argued to suggest that accountants might play an important role in strategy formulation and in monitoring of such strategies. The enterprise's cost structure relative to those of its actual and potential rivals was shown to be of the essence in assuring the substainability of the firm's market strategy. For a firm's strategy to be substainable, it was shown to require that the enterprise possessed cost advantages over its rivals and expected to retain these advantages in the future. With this view, accountants should not restrict their attention to the cost structure of the firm for which they work. They, additionally, need to focus on the cost structures of all firms in the market and those likely to enter the market. Again, it was suggested that accountants also need to consider demand factors if they are to help in decision making. The cost behaviour hypotheses entertained by this theory emphasize the possible importance of economies of scope which were argued to be likely to aid accountants in understanding the implications for costs of new manufacturing technologies.

Contestable market theory emphasizes the great importance of fixed costs in the firm's cost structure and therefore in determining the sustainability of enterprise strategies. This provides important support for the concerns of practising accountants who seek to find reporting methods which better reflect the economic effects of fixed costs. Finally, the importance of reporting sunk costs was suggested because of their possible role in creating barriers to entry.

The analysis presented in this article suggests that there may be strong theoretical reasons for urging the greater adoption of strategic management accounting.

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