THE INTERRELATIONSHIP OF MARKETING PRODUCTIVITY AND FINANCIAL PERORMANCE FOR GLOBAL SMEs

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This article offers a conceptual exploration of the interrelationship of marketing productivity and the financial performance of SMEs, focusing on the effect of marketing productivity on an SME's ability to generate wealth for its owners at business disposition. Marketing productivity is the relationship of marketing outputs to marketing inputs and is a critical component of enhancing competitiveness and superior financial performance. SMEs create value for the owners by: (i) generating current income, and (ii) creating a financial asset.

The real issue here may not be productivity per se but an inability to measure cause–effect relationships between marketing expenditures and results.

(Webster, 1981)

As a corporate function and a social institution, marketing is increasingly regarded as a 'necessary evil' rather than a value-creating activity, focusing renewed attention on its productivity ... the marketing function appears to consume a disproportionately high share of resources, inviting intense scrutiny from corporate cost-cutters.

(Sheth and Sisodia, 1995)

Introduction

The managers and owners of small and medium-sized enterprises (SMEs) are constantly searching for ways of enhancing wealth-creating potential of the firm. However, small, privately held businesses, unlike publicly traded corporations, only have an established market value when the revenue is realised through the sale of the business. Hence, SMEs are constantly seeking activities to increase profitability for two major reasons: (i) to enhance current income, and (ii) to enhance subsequently the selling value of the SME.

The current business environment, with its high level of financial performance expectations, forces SME owners and managers to consider carefully the productivity of all deployed resources and how the use of these resources impacts both current income and valuation. For example, different resources-intensive marketing strategies, such as pioneering and innovation, have been offered as paths to enhance competitive standing (see, for example, Foxall, 1984) even argue that pioneering

and associated product innovations *per se* are not a path to enhanced performance, but may lead to an inefficient utilisation of resources and ultimately commercial and financial failure.

The effective, efficient, and financially rational utilisation of marketing resources is increasingly becoming the critical task for global SME managers. Rappaport (1986) notes that 'business strategies should be judged by the economic returns they generate for shareholders'. In the current economic environment, firms must constantly improve concurrently their market and financial standing. Anderson (1982) suggests that one perspective of the function of marketing is to increase the market value of the firm by developing customer-satisfying long-term positional advantages. However, marketers have typically fallen far short of this task (Sheth and Sisodia, 1995).

Marketing productivity is an issue that has been largely ignored in the marketing discipline, and has not typically been assessed either as a function of marketing orientation or as an antecedent of financial performance. While finance and operations management have made tremendous progress in the development of useful productivity metrics, marketing as an academic discipline has not considered productivity as a central topic in marketing. Hence, the measurement and assessment of marketing productivity has been largely neglected. However, a core group of dominant marketing scholars have championed marketing productivity as an increasingly important marketing topic.

Bucklin (1978), in an American Marketing Association sponsored project on marketing productivity, developed innovative non-pecuniary measures of marketing productivity, but found that the assessment of marketing productivity 'still remains in an embryonic state'. Webster (1981) notes that productivity is one of the critical issues facing marketers. In the face of increasingly cost-focused managers and higher levels of competition, each marketing expenditure must clearly demonstrate how it creates value for the firm and customers.

Sheth and Sisodia (1995) found that marketing productivity has now become a critical issue as marketing costs for businesses have risen from 20 per cent to approximately 50 per cent of total costs, production costs have dropped from 50 per cent to 30 per cent of total costs, and managerial overhead has dropped from 30 per cent to 20 per cent over the past 50 years. Productivity studies of marketing inputs at the business level have typically been undertaken by scholars assessing the relationship of marketing imputs to sales outputs (Nerlove and Arrow, 1962; Farris and Buzzell, 1979; Simon and Arndt, 1980; Farris and Albion, 1981; Brockhoff, 1990; Danaher and Rust, 1994; White and Miles, 1996), or those assessing the effect of marketing on firm market value (Chauvin and Hirschey, 1993; Mathur and Mathur, 1995). There has recently been a tremendous controversy in explaining the variations in the productivity of advertising, as measured by the advertising and promotions costs/sales ratio (Ailawadi et al., 1994, 1997; Balasubramanian and Kumar, 1997a; Balasubramanian and Kumar, 1997b). Shaw (1990) notes in a review of marketing productivity studies that aggregate, or macro level marketing productivity has been an issue of importance since the early 1990s, with the American Marketing Association holding a symposium on marketing productivity in 1965. While marketing productivity as a topic has not enjoyed widespread interest, marketing productivity for SMEs operating in the international arena has been completely neglected. The purpose of the present study is to offer a conceptual framework to assess the interrelationship of marketing productivity and financial performance for SMEs.

Marketing Productivity

Mansfield (1979) provides a general definition of productivity, from a microeconomist's perspective, as 'the ratio of output to input'. Typically economists are interested in the relationship between the incremental change in output associated with a marginal change in inputs. For example, the marginal product of labour, assuming no change in technology, capital, or other exogenous variables would be the additional output associated with an increase of one unit of labour input. Productivity of any resource can be measured in a production function, looking at either the marginal product ($MP = dOutput/dInput$) or average product ($AP = Output/Input$). Average product describes the relationship of output to inputs over some range of outputs; marginal product defines the ration of outputs to inputs at a specific level of marketing inputs. Marginal marketing productivity could be defined as the change in total sales associated with an incremental change in marketing expenditures ($MP_{marketing} = dSales/dMarketing$ Inputs). The productivity of marketing in the sales response function can be described by a general three stage production function that exhibits increasing marginal returns with respect to increases in marketing inputs, then exhibits diminishing marginal returns with respect to increases in marketing inputs, and ultimately exhibits absolutely decreasing returns to marketing inputs (Leftwich, 1976; Simon and Arndt, 1980). For example, Brockhoff (1990) in a microeconomics based study of the productivity of marketing expenditures in German chemical corporations utilises a marketing and R&D expenditures in a two variable Cobb-Douglas production function to explain sales. Brockhoff (1990) found that marginal productivity ($MP_{marketing}$) of marketing ranges from 3.11 to 3.24. This indicates that for an incremental dollar spent by the business on marketing, sales will tend to increase in the same period from $3.11 to $3.24.

However this traditional microeconomics perspective *may not* be the most useful perspective when attempting to explore the relationship between strategy, marketing productivity, and financial performance. The underlying assumptions of the neo-classical model – most saliently for the purpose of this paper, homogeneity of supply and demand, perfect competition and symmetric and perfect information – have all been challenged in a marketing strategy context by Hunt and Morgan's (1995, 1996) resource-advantage theory

of competition and Dickson's (1992) general theory of competitive rationality.

Hunt and Morgan's (1995, 1996) basic premise is that a business seeks to develop a competitive advantage based on its unique set of skills and resources and if successful enjoys superior financial performance. Resource-advantage theory of competition assumes heterogeneity of demand and supply; the role of innovation and entrepreneurship; imperfect, costly, and asymmetric information; and implicitly integrates marketing function in the management of demand. Dickson's (1992) work on competitive rationality is similar in that he assumes free capitalistic markets tend to act in a manner that is best described as oligopolistic competition, where businesses attempt to create and then exploit market disequilibriums. These emerging theories suggest that a microeconomics based measure of marketing productivity may not be appropriate for strategic decision making.

Sheth and Sisodia (1995) suggest that a measure of marketing productivity should include the productivity of both 'customer acquisition and customer retention'. Hawkins et al.'s (1987) marketing measure compares a business's relative market share and relative market price to its marketing costs as a percentage of sales, implicitly incorporating the business's success in both acquiring and retaining customers.

Hawkins et al. (1987) utilised the marketing productivity measure to assess the relationship between marketing productivity and: (1) relative product breath; (2) number of competitors; (3) relative product quality; (4) relative customer size range; (5) served market growth; (6) number of immediate customers; (7) purchase amount of immediate customers; (8) importance of auxiliary services to end users; (9) frequency of product changes; and (10) customisation. They found that marketing productivity was negatively related to the number of competitors, number of immediate customers, and the importance of auxiliary services to end users. Hawkins et al. (1987) did not assess the relationship of marketing productivity to market entry, innovations, or research and development.

International Aspects of Marketing Expenditures
International business activities require interna-

tional marketing efforts. However, these efforts require more than simply translating the product's packaging or advertising campaign into the local language. For instance, the combination of high rates of television ownership and commercial television networks makes television advertising effective in the United States. Per capita television ownership is nearly as high in Great Britain, but the state owns (or highly controls) the television networks. This requires a different type of marketing expenditure for the same product in Britain versus the United States. In addition, there are restrictions on the advertising of alcohol and tobacco related products in the US that American producers do not face abroad.

Newspaper readership is quite varied across the major trading partners of the United States and would play a very different role in marketing to these countries. In the US, daily newspaper circulation is approximately 228 per 1000 people. Canada has a similar circulation figure of 189 per 1000 people. However, in Mexico the number falls to 113 per 1000, while in Japan it is a staggering 576 per 1000 people (*Statistical Abstract*, 1998). These differences would imply that the productivity of marketing expenditures on newspapers would not be the same across these countries.

Finally, when a company markets a product in a country with low literacy rates, it would be foolish to rely on the print medium as its advertising vehicle. According to Keegan (1999), non-related factors also play a role in marketing expenditures. For example, paper shortages in India often severely curtail the printing of newspapers. Advertisers often must commit well in advance of publication, which makes it difficult to respond to changing market conditions. The very uncertainty of when, or even if, one's advertisement will be printed will make the marketer look to another medium. These differences among countries (and even in markets within countries) require different advertising approaches and even different advertising mediums (television, radio, newspapers, magazines, billboards, etc.).

It should be expected that the different mediums in different countries will have differing impacts on sales for equivalent expenditures. Expenditures in these different mediums should also be expected to have different effects on sales

in subsequent periods. For instance, a daily news-paper is discarded daily, so advertisements are seen for a brief period and the impact on sales would be expected for a brief period as well. A monthly magazine may be kept longer, and leafed through several times. Thus, an advertisement is seen several times and may be expected to influence the consumer for a much longer period.

Financial Performance for SMEs

Financial performance for small and medium sized enterprises is more difficult to conceptualise than for large publicly traded corporations. In publicly traded corporations financial performance can be measured by the change in shareholder wealth, as a function of dividends and capital appreciation. However, since few SMEs are publicly held, business valuation models must be used.

The sales value of a small business can be a function of earnings and asset value. Lippitt and Mastracchio (1993) compare the earning capitalisation method to the asset replacement method and found that both earnings and asset values should be considered in the valuation of business. Recent work by Pricer and Johnson (1997) summarises and assesses the accuracy of twelve small business valuation methods in predicting the business's selling price. The most accurate valuation method in predicting the business's actual selling price was the Corporate Investment Business Brokers' (CIBB) method which takes into account both earnings and asset data (Pricer and Johnson, 1997). The CIBB method is:

$$\text{Selling price} = \text{assets@bank} + \text{inventory@cost} + \text{EBIT} + \text{owner's compensation}$$

Enhancing marketing productivity will enhance EBIT and allow owner's compensation to increase.

It is therefore proposed that SMEs that enjoy higher levels of marketing productivity will also enjoy enhanced levels of both current income and long term financial performance.

SME owners and managers should strive to increase the productivity of marketing expenditure. Each dollar spent on marketing must generate $\$1.00/(1 - \text{contribution margin})$ to reach break-even (see White and Miles, 1996). The

evaluation of marketing productivity is much more than merely subtracting the cash outflows from the cash inflows. The cash outflows associated with the marketing expenditures occur in the present, while the resulting cash inflows are realised in the future. In addition, since memories of the marketing campaign carry over into future periods, the single marketing expenditure may have an effect on sales in a number of subsequent periods. The effects on future sales no doubt decline over time. Advertising campaigns, slogans and jingles are forgotten over time and get displaced by more recent advertisements. This diminution of the effects of advertising is referred to as the decay rate of the marketing expenditure.

SME managers must compare these inflows and outflows on an after-tax basis. Since marketing expenditures are business expenses, the after-tax cost is less than the actual dollar amount. For instance, if the business faces a 40 per cent tax rate, then a $\$100$ marketing expenditure reduces after-tax net income by only $\$60$. In general terms, the after-tax cost of marketing expenditure is:

$$\text{Cost}_{\text{after-tax}} = \text{marketing expenditure } (1 - t)$$

where t = marginal tax rate. The higher the tax rate, the lower the after-tax cost of marketing expenditure to the SME.

Operating cash inflows on an after-tax basis can be found by summing net income and depreciation, if there are no interest expenses. After-tax operating cash flows do not deduct interest charges because interest expenses are financing costs. Only operating costs are deducted from sales in the calculation of after-tax operating cash inflows.

The goal here is to isolate the after-tax cash flows associated with marketing expenditures. Cash outflows, the costs incurred by the marketing programme, are easily identified. Associated cash inflows result from the incremental sales that the marketing programme produced. Associated costs must be deducted from those sales, which include the costs of goods sold and selling and administrative expenses that correspond to these additional sales. Since the marketing expenditure does not

generate capital assets, there are no additional depreciation expenses associated with the marketing expense itself. The incremental after-tax operating cash inflows can be calculated using the following general formula:

$$\Delta \text{Operating cash inflows}_{\text{after-tax}} =$$
$$(\Delta \text{Sales} - \Delta \text{CofGS} - \Delta \text{S\&Adm Exp})(1 - t)$$

where t = marginal tax rate, ΔCofGS = change in the costs of goods sold and $\Delta \text{S\&Adm Exp}$ = change in the selling and administrative expenses.

The higher the tax rate, the lower the operating after-tax cash inflows resulting from a given change in sales.

Since the cash outflows and cash inflows do not occur during the same time period, good financial management requires that these multi-period cash flows be discounted to the present for evaluation. In other words, marketing expenditures can and should be evaluated within a standard capital budgeting framework. Marketing expenditures have characteristics similar to capital expenditures. Both require initial cash outflows and both produce subsequent cash inflows. A net present value (NPV) evaluation of marketing expenditures could be represented as:

$$\text{NPV} = (\text{Mkt Exp})(1 - t) + \sum_{i=1}^{n}(\Delta \text{Sales} - \Delta \text{CofGS} - \Delta \text{S\&Adm Exp})_i \, (1 - t)/(1 + k)^i$$

where k = discount rate and i = specific time period, from 1 to n.

There are two variables that are key to the NPV calculation above and are not explicitly included in the equation. The first variable is how much of the sales response is carried over into the subsequent periods, which is the decay rate of marketing expenditures. Obviously, the higher the initial response, the higher the NPV. Likewise, lower decay rate also contributes to a higher NPV.

Conclusion

The objective of SMEs is to create wealth for the owners. Many dollars are wasted in marketing programmes that do not exhibit a favourable benefit/cost ratio. Enhancing marketing productivity is of paramount concern for SME managers because it can simultaneously increase current income and the sales value of the business. NPV is the most appropriate method to estimate the productivity of marketing expenditure, as this analysis makes it possible to evaluate cash inflows discounted over subsequent periods with a single cash outflow.

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