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# The Economics of Advertising: A Reappraisal

**Andy Bearne**[1]

***Abstract***

*The traditional view of advertising is that it is economically wasteful and damaging to welfare as it distorts consumers' preferences, thus creating monopoly power for firms that produce heavily advertised brands. The alternative school of thought takes a broader view of competition and stresses the informative role of advertising. In a world characterised by uncertainty and ignorance, it is argued that advertising has a key role to play in providing consumers with information, reducing search costs and enabling them to make better informed choices. Further theoretical developments have stressed the importance of market structure, strategic interaction between firms and the role that advertising plays in this.*

## *Introduction*

Advertising has been the subject of fierce debate in the field of industrial economics. The traditional view of advertising is that it distorts consumers' preferences by persuading them to purchase heavily advertised brands. Kaldor (1950) argues that firms use advertising to enhance their position by creating barriers to entry. Advertising is viewed as both economically wasteful and damaging to welfare as it wastes resources and creates monopoly power. An alternative approach, the information school, proposed by writers such as Telser (1965) stresses the informative role of advertising. Far from being wasteful, advertising is seen as welfare enhancing as it reduces the costs of search and enables consumers to make better informed choices. Further theoretical developments have stressed the importance of the internal structure of markets and the impact that advertising has on the strategic interaction of firms.

Ferguson and Ferguson (1994, pp63-64) point out another reason why the study of advertising is interesting. While overall advertising levels have tended to increase in recent years, usually up to between 0.4-1.5 per cent of GDP in industrialised countries, expenditures are very concentrated on certain products and industries. For example, in the UK in 1980 advertising on consumer goods was twice as much as that on industrial goods. Finally, other business-related disciplines have had much to say about the role of advertising. For example, Bowbrick (1992) argues that branding and advertising is just one part of a wider theory of quality. East (1990) provides a comprehensive review of the impact of advertising on consumer behaviour. Lambe and Webster (1990) point out the importance of sociological factors in the effectiveness of advertising. However, it is not intended to review this literature here since it is irrelevant to the purpose of this paper: to critically evaluate research on the two main polarised schools of thought concerning the economic consequences of advertising and to suggest avenues for further research.

This paper will proceed as follows.

Section 2 provides a summary of the economic theory of advertising. Empirical evidence concerning the impact of advertising is discussed in section 3. Finally, section 4 contains some concluding comments.

## 2. *Theories of advertising*

### *(a) The traditional view*

The ideas of the traditional school of thought on advertising where pioneered by Kaldor (1950), but many of the concepts stem from research on entry and its effects by Bain (1956). He defined a barrier to entry as anything which places potential entrants at a competitive disadvantage compared with established firms. Bain identified two ways in which advertising may act as a barrier to entry. First, economies of scale in advertising can act as a barrier to entry if a new entrant is too small to fully realize potential cost savings achieved by incumbent firms. Second, product differentiation can directly create a barrier to entry when existing firms have established products which have built up consumer goodwill. As a consequence, entrants will have to charge a lower price than incumbents to sell the same amount of their product.

This traditional or persuasion view of advertising argues that it works by persuading consumers to purchase advertised products thus increasing both prices of such brands and market power of the firms that produce them. It is argued that in a world of complex and varied products consumers are imperfectly informed and suppliers have a dominant position, with bargaining power weighted in their favour. The market mechanism is seen as want-creating rather than want-satisfying, with consumers continuously being persuaded to drop old brands in favour of new ones. Advertising thus affects not only sales, but opinions and attitudes. The crucial and implicit assumption is that consumers' preferences are distorted and that they therefore make 'wrong' purchasing decisions.

An important result of this is that own-price elasticity of demand will be reduced. The implications of this can be examined using the Lerner Index (1934) as a theoretical measure of market power. Under the assumption of short-term profit maximising behaviour by firms, it can be shown that:

$$L = \frac{P - MC}{P} = \frac{1}{e}$$

where:

L = Lerner index of market power
P = Proce of the good
MC= Marginal cost of production
e = own-price elasticity of demand

Clearly if advertising reduces own-price elasticity of demand, firms will have increased levels of market power. An implication suggested by Glaister (1974) is that entrants with new products will face a substantial barrier to entry which can only be overcome with an expensive advertising campaign.

Browning and Browning (1986) demonstrate how advertising can also be economically wasteful using a simple game theoretic example of the prisoner's dilemma. In this example there are two competing firms who can select either a large or a small advertising budget. One possible combination of profits that could result is shown in the pay-off matrix in table 1.

If one firm chooses a large advertising budget and the other chooses a small advertising budget, the former firm will achieve higher profits by gaining a larger

Table 1: Advertising and the Prisoner's Dilemma
The pay-off matrix

| | | Firm B | |
|---|---|---|---|
| | | Small budget | Large budget |
| Firm A | Small budget | A = 10<br>B = 10 | A = 05<br>B = 18 |
| | Large budget | A = 18<br>B = 05 | A = 8<br>B = 8 |

market share. This gives both firms an incentive to choose a large advertising budget. However, profits would have been higher if they had both chosen a small advertising budget.

Competitive oligopoly models such as that proposed by Else (1968) demonstrate this point. If one firm in a non-collusive oligopolistic market increases advertising levels it is argued that it is a natural reaction of competitors to increase their advertising in retaliation. This is in order to shift the distribution of sales back in their favour. While total sales may have increased, profits could have fallen. Even so, there is little incentive to reduce advertising to previous levels. While theoretically this should deter firms from increasing advertising in the first place, there are several reasons why this may not be the case in practice. For example, there may be changes in specifications or an improvement in quality. The result is continuous upward pressure on advertising budgets with a ratchet effect in operation. It may also be argued that advertising is equivalent to a free complementary good, or joint product. For example, advertising may be used to enhance sales in the same way that a razor blade producer may give away free shaving foam.

The Monopolies and Mergers Commission's investigation of the soap power industry in 1968 provides evidence of such an effect. The report suggested that all firms should reduce advertising by some proportion. While it would appear that this would make all firms better off, they opposed the suggestion. A reason for this could be that advertising is aimed at reducing cross-price elasticity of demand. If a firm wants its brand of a product to be perceived as unique and different, the advertising of competing brands will be just as important as its own in helping to achieve this image. If a unique brand image can be obtained in this way, the prisoner's dilemma example given above is no longer appropriate as selection of a high advertising budget by both firms will actually lead to an increase in long-run profits, compared with the small advertising budget situation.

*(b) The advertising as information view*

The traditional view of advertising and the concept of competition on which it is based has been widely criticised. Auerbach (1988) argues that the traditional view of competition is too narrow and argues for a broader definition. He argues that UK industry, for example, has become much more competitive in recent years, despite increasing rates of concentration, due to broader sources of competition such as imports. This view of advertising is consistent with the Austrian school of thought, where the idea of equilibrium is rejected, and competition is seen as a process which evolves through time, with decisions being made in conditions of uncertainty and limited information. Hence advertising is central to the competitive process as it supplements other sources of information and facilitates entrepreneurial action by economic agents. For example, Littlechild (1978) argues that in a world of limited information and uncertainty, consumers do not always know about all available products and their properties so advertising contains valuable information. Similarly, Eatwell's (1971) work suggests that the traditional school's focus on the link between advertising and profits/concentration is misplaced. He argues that firms with better management or better market opportunities will be less constrained than others and will hence have higher growth and profit rates.

Telser's (1965) criticism of the traditional model is also based on a belief that advertising and competition are complements. By assuming that sales depend on advertising and price, he argues, the traditional approach assumes that advertising and competition are incompatible. He assumes, instead, that firms operate in imperfectly competitive environments and offer advertising along with their products. Whatever price, buyers will not be aware of suppliers unless they makes themselves known through advertising. There may still be no possibility for suppliers to affect price. Increased levels of advertising can be evidence of reduced rather than increased barriers to entry. Often, he argues, high levels of advertising are associated with industries where there is high turnover of both brands and leading firms.

There are two important elements that appear to have been over looked by the traditional school. First, information is an important and scarce resource. Second, the abilities of the consumer tend to be underestimated. In a world of incomplete information and uncertainty advertising has an important role to play in aiding consumers make better choices. The market for baby food, which has involved very high levels of advertising, provides a good example of the contrast between the two schools of thought. While the traditional school would argue that advertising is aimed at persuading mothers to buy products, the information school would argue that high advertising levels are necessary due to the high turnover of consumers (this example clearly demonstrates that even simple facts can be given very different interpretations).

Nelson's (1975) paper points to a fundamental problem with the persuasion school. Since economists have no theory of taste changes, an approach suggesting that advertising changes tastes cannot lead to behaviourial predictions. Further, as Else (1966) argues, the theory of consumer demand on which the traditional view is based is seriously inadequate. Supply conditions are dynamic and so modelling wants as static and uniformly perceived is misleading. Advertising can still influence behaviour but does not have a negative impact on welfare since consumers need to be aware of all the possible products available. Advertising reduces incompleteness of information by reducing the costs of search (ie canvassing various sellers). Consumers are better able to match products to their preferences. The real world, it is argued, is characterised by imperfect knowledge and uncertainty and advertising can help reduce the ignorance of consumers.

Nelson hence argues that far from being wasteful, advertising will be beneficial since consumers are directed to goods with a lower unit price. High levels of market power may be caused by demand for individual firms' products being inelastic, or collusion between firms making demand even more inelastic. Nelson argues that the essence of this problem is the lack of information. In increasing competition and making demand more elastic, mere existence of substitutes is not important. It is consumers' awareness of them that matters.

Considering advertising as a barrier to entry, if consumers use other forms of information (such as recommendations from other consumers) prior to a good being advertised, then the introduction of advertising for that good will increase the proportion of sales obtainable. This is because some consumers will switch criteria to advertising. An entrant to the market can only capture a share of those consumers who are guided by advertising, hence advertising should make entry easier than otherwise. Advertising will only increase concentration by eliminating inefficient firms.

Stigler (1961) stresses the importance of information and search. For a particular type of good, there will be a frequency distribution of prices quoted, its dispersion being a measure of consumer ignorance. Increased search by consumers will yield diminishing returns and efficiency of personal search is very low for unique goods since potential sellers are not known. Advertising is the obvious method of identifying sellers and hence reducing search costs. All markets are characterised by a stream of new buyers requiring knowledge of products and also infrequent buyers that require 'reminding'. Charging sellers for advertisements, argues Stigler, encourages them to supply the buyer only with the information that they require. Higher prices may even be justified since information search and collection is costly and time consuming. Advertising is even more beneficial when it is on prices as search becomes extremely economical.

Stigler concludes that 'reputation is a word that denotes quality, and reputation commands a price because it economises on search' (1961, p224). Experience of friends, firm or product reputation, or perhaps opinions of testing organisations (Which?, *What Hi-Fi* and so on) will further impede firms' abilities to attempt to misinform consumers in their advertising campaigns. Firms' desires to maintain their reputations and to encourage repeat purchase will greatly increase the cost of 'cheating' customers into buying branded products. Selling low quality products even if highly advertised, could lead to much reduced future sales.

Barnes (1975) argues that advertising is used to improve the efficiency of the production and distribution process and is therefore no different to any other input into the process. Often, he argues, advertising merely enforces already favourable attitudes and behaviour. Hence the persuasiveness of advertising is diminished. Else (1968) argues that demand trends are primarily determined by social and environmental conditions. Advertising does not increase the level of demand. It merely speeds up the expansion in demand that would have occurred anyway.

Nelson (1974) argues that informative advertising is generated by consumer power in the product market. First, for search goods consumers will know about misleading advertising prior to purchase, hence reducing incentives for producers to attempt to misinform consumers. There will be a decline in credibility of future advertisements and increasing costs of processing non-buying consumers.

With experience goods the possibility of repeat purchase is the main control exerted on producers. Advertising relating to qualities that can only be truly judged with experience of a good provides little information. This creates an incentive to extract as much direct information as possible. Information is contained simply in the fact that the product exists. Consumers believe that the more heavily advertised products are superior. Nelson argues that they will be correct in assuming this (ie more heavily advertised brands will provide more utility per unit price). First, more efficient firms will find that it pays to expand output by increasing advertising and decreasing unit price. Secondly, advertising increases the probability of brands being remembered. Brands with a higher probability of repeat purchase have a greater incentive to improve consumer memory so higher utility brands have greater incentive to advertise.

*(c) Mobility and strategic interactions*

More recently, attention has shifted to the internal structure of markets, strategic interactions between firms and the role of advertising in these processes. Caves and Porter (1977) added an interesting dimension to the study of advertising with the concept of mobility barriers. This is a particularly interesting development as it both develops the traditional literature and attempts to analyse the importance of both market structure and interactions between firms. Their work is based on two central propositions. First, entrants and incumbents make decisions based on conjectures about uncertain future rents. Second, Bain's theory of entry barriers is limited in only considering firms moving from zero to positive outputs. Instead, they suggest a more general theory concerned with mobility of firms between industry segments, or niches. A central element of this theory is that sellers in a market differ in more than just their size. These differences will be based on strategies employed as well as the attributes of firms and markets. Hence it is argued that industries may be divided into strategic groups, each consisting of firms that resemble each other closely and recognise mutual dependence.

Caves and Porter (1977) argue that, within these groups, new entrants' investment decisions will be based on six considerations: (i) rents earned by incumbent firms, (ii) structural barriers to entry as identified by Bain, (iii) expected reactions of incumbents, (iv) behaviour of other potential entrants, (v) resources already possessed by the potential entrant, and (vi) any irreversible costs associated with the entry decision.

For the incumbent, there are several advertising strategies that may be used to deter entry. Over-investment in advertising prior to entry makes the incumbent tougher in the post-entry game so that it is always willing to fight, should entry occur. Advertising might also act to create a niche where other firms can enter, but only on a very small scale. Where certain major retailers have created some brand disloyalty, this may open up a niche for a small-scale alternative, but this is likely to remain only a very small fraction of the given market.

Lyons (1987) suggests two ways in which low advertising might be appropriate. The 'lean and hungry look' refers to incumbents having low levels of advertising in order to signal to potential entrants that price competition will be fierce, should they choose to enter. Should entry become inevitable, the 'puppy dog ploy' may be more appropriate, where lower levels of advertising should reduce the vigour of post-entry competition.

Finally, entry will become harder, the greater the degree to which economic space is crowded by brands that have been established with heavy advertising. Location decisions in geographical or product space are also important. The costs of relocating the firm will determine the credibility of this as a strategic weapon. Entrants can also face problems if incumbents are able to limit the size of their potential market. The higher fixed costs, the larger the market will need to be for entrants to break even. This will be harder to achieve when markets are naturally segmented due to geographical location or strong localised preferences.

### *3. Empirical evidence*

#### *(a) Static models*

Much of the earlier work on the impact of advertising focused on its relationship with various variables. Cowling et al (1975) found that advertising on cigarettes had two significant effects on demand. First, the distribution of consumption between brands was distorted in favour of more heavily advertised brands. Second, the overall level of cigarette consumption increased as advertising expenditure increased. They also found evidence of high levels of advertising leading to larger firms. There are two problems with drawing conclusions from such a study. First, there is the problem of causation. It could be argued that increasing advertising of a brand increases its consumption, but it could just as easily be argued that brands with larger sales are able to advertise more. A similar problem exists with interpreting a correlation between advertising and firm size. While some studies have employed estimation techniques which acknowledge the problem of causation (e.g. Greer, 1971) as yet they have been unable fully to solve the problems it presents when interpreting results.

Other work on the cigarette industry such as Brown (1978) found that competitors' advertising levels had a significant impact on the returns to a firm's advertising. Given the lack of price competition and uniformity of production costs, advertising is a significant barrier to entry. This result is important since, given the homogeneity of the product, it may be argued that a significant proportion of advertising is largely persuasive.

Comanor and Wilson (1974) investigated the relationship between advertising and market power for consumer products. They found that advertising was more important than relative prices in allocating sales. They found high price-cost margins for heavily advertised products. Referring to the Lerner Index, this, they suggest, demonstrates the presence of increased levels of market power for firms that produce the heavily advertised brands. However, supporters of the information school might argue that high prices could be justified where advertising conveys valuable information, as it reduces search costs.

Several writers have examined the relationship between advertising and concentration. The argument is that advertising increases product differentiation and this increases barriers to entry. Guth (1971) found a significant relationship between concentration and the advertising/sales ratio. He suggests that advertising results in greater inequality of the size distribution of firms and higher profits. Buxton et al (1984) made an important contribution to the debate by separating the effect of advertising on sales to consumers and sales to producers. They found that advertising only affected concentration with respect to sales to consumers. This may suggest that producers are better informed and less ignorant than consumers and their consumption patterns will not, therefore, be swayed by persuasive advertising. Once again, such studies suffer from their inability to determine the direction of causation adequately.

Greer (1971) argues that if consumers are knowledgable, low quality goods should sell at low prices whereas high quality goods will sell at high prices. He examined a range of products and found a low correlation between price and quality. He argues that this demonstrates inefficient buying patterns. This, he suggests, is caused by persuasive advertising distorting demand patterns. Greer found the lowest advertising/sales ratio for producer search goods and the highest ratio for consumer experience goods. This could indicate that advertising is used to influence buyers where the quality of goods is least evident.

Orr (1974) specified the following two equation model of the determinants of market entry:

$$\pi = f_1(X,K,A,R,r,C)$$
$$E = f_2(\pi_p-\pi^*,Q)$$

Where $\pi^*$ is the long-run profit predicted on the basis of entry barriers, X is the market share of the minimum efficient scale (MES) plant, K is capital requirements, A is advertising intensity, R is R&D intensity, r is risk, C is high concentration, E is the number of entrants per year, $\pi_p$ is the past industry profit rate and Q is the past industry rate of growth of output. The model was applied to 71 US manufacturing industries for the period 1963-1967. Orr found that capital requirements, advertising and high concentration were strong barriers to entry.

Paton and Machin (1993) examine the ways in which advertising of competitors and cyclical changes in macroeconomic conditions affect the use of advertising as a strategic variable. Asymmetry of response to rivals' changes in advertising expenditure was common. Of the 62 respondents who said they would match an increase in rivals' advertising, 56 said they would not match a decrease. This provides empirical support for the ratchet mechanism proposed by Else (1968). A majority also appeared to follow pro-cyclical advertising strategies. There was some evidence that firms with high levels of advertising were more likely to match competitors, as were firms who produced consumer rather than producer goods.

Schmalensee's (1978) examination of the US ready-to-eat breakfast cereals market gives an example of how advertising might be used to deter entry by crowding economic space. For the period 1950 to 1972 the top six firms captured around 95 per cent of the market and received very high profits. This was accompanied by a noticeable lack of entry. Minimum efficient scale, estimated to involve a market share of just 3-5 per cent, could not explain this. Patents or ownership of raw materials were also insignificant. However, the six leading firms had advertising-sales ratios in excess of 10 per cent and introduced over eighty new brands during the period of study.

Smiley (1988) empirically investigates theoretical models of entry deterrence using a questionnaire asking respondents the degree to which they use limit-pricing, aggressive use of the learning curve, excess capacity, advertising, patents and R&D, aggressive reputation, brand proliferation and masking single product profitability within a multi-product firm. Results of the study indicated that strategies do differ significantly between firms. Advertising and patent preemption were the most common strategies for new products, with limit pricing being used less often. Brand proliferation and masking profitability were more common for existing products, along with creation of brand loyalty through advertising.

Urban et al (1984) empirically investigate any advantage that might accrue from owning the pioneering brand within a market. They interviewed at least 300 respondents for 47 already existing brands across 24 product categories for the period 1979-82 in order to determine their brand sets and preferences. The dependent variable in their study is the ratio of the market share of the *n*th brand to enter a market to that of the first brand to enter. Independent variables are order of entry, number of years between entry of a brand and the previous brand, product positioning and advertising. The order coefficient was found to be negative, indicating that latter entrants had lower market shares than pioneering brands. The advertising and positioning coefficients were positive. Overall, results implied a significant disadvantage for latter entrants which was made even worse by aggressive advertising by pioneers.

It would seem that there is some empirical support for the traditional view of advertising, but it is also clear that results may often be interpreted in ways that support either school of thought. Schmalensee (1972) points out a major problem with some of the empirical evidence concerning concentration that appears to lend support to the traditional view. The greater the profit rate in an industry, the greater the advertising/sales ratio is likely to be. This is because the more profitable an additional unit of sales is, the more fiercely firms will compete for it. If proposition that market concentration is strongly correlated with profitability is accepted, a correlation between advertising and profitability may be expected even when advertising has no impact on entry barriers.

Block (1974) demonstrates a problem with studies finding strong positive relationships between advertising and profits. In most studies, advertising is seen as a proxy for the degree of product differentiation. Block argues that it is in fact a proxy for errors in measurement of profit from the accounting of advertising. This is because advertising is treated as a current expense, but, he argues, it should be treated as an investment as it creates a stock of goodwill.

Moreover we have already seen that studies which examine the relationship between advertising and variables such as concentration and profits suffer from the problem of determining the direction of causation. For example, does high advertising create barriers to entry which lead to higher profits, or can more profitable firms simply afford to spend more on advertising? Standard estimation techniques are yet to provide a satisfactory answer to this question.

The traditional school's emphasis on differing levels of advertising for consumer and producer goods may also be displaced. Buyers of producer goods are better informed and require less information, hence general advertising levels will be lower. Within the consumer market, this also applies to durables and non-durables. The former tend to have more search qualities making advertising less necessary.

Some price dispersion amongst close substitutes need not be at odds with the information school. The cost of keeping informed about all articles which an individual purchases would be impossibly expensive. Advertising information is therefore valuable to consumers. Advertising is clearly a necessary element of a high-consumption economy. While clever advertising may induce consumers to try almost anything, the most aggressive campaign will not sell an inferior product. The product may be purchased once but repeat purchase will not occur. Further, the concept of a product is an important element of material satisfaction. If satisfaction is derived from the consumption of a certain brand then it is utility enhancing in its own right.

There is considerable empirical support for the information school. Telser (1965) examined four pieces of evidence for a range of products. First he found that advertising intensity and concentration were virtually independent, suggesting that advertising does not lead to entry barriers. Secondly, the correlation between changes in advertising and changes in concentration was negative. This suggests that advertising actually enhances competition as it suggests that as levels of advertising in an industry increase, the level of industrial concentration falls. Thirdly, he found that even though toiletry products were more heavily advertised than food products, their market shares were less stable and they had a shorter expected lifespan. Telser concludes that 'advertising is frequently a means of competition and a sign of entry. This agrees with the view that advertising is an important source of information' (1965, p31).

Hart and Clarke (1980) carried out an extensive study of concentration in British industry for the period 1935-1975. They found that advertising did not increase industrial concentration. Significantly, these results hold when their regressions were modified to separate consumer and producer industries. Another classical empirical example (Daly, 1976) lends support to the information school. The Federal Commission in the USA examined the market for advertised and unadvertised eye glasses. Prices were found to be lower in the advertised categories.

Ravenscraft's (1983) paper empirically investigated the structure-profit relationship. The model is as follows:

profit = f(market share, advertising, R&D, total assets, diversification, vertical integration, market growth, concentration)

Results were consistent with a predominantly competitive environment. Concentration affected profit negatively. Capacity utilization and market growth had the most significant positive impacts. Market share also had a positive impact on profitability, whereas the impact of advertising and assets was negative. Ravenscraft argues that it is lower costs, rather than collusion or barriers to entry that explain positive returns that are evident with vertically integrated or diversified firms.

*(b) Dynamic models*

It is clear from the evidence on static models that evidence on the impact of advertising is inconclusive. For example, studies looking at concentration and the importance of different product types have provided support for both schools of thought and this is true of many other studies, depending on the way in which the researcher chooses to interpret results. However, a more fundamental and serious criticism of such studies arises if it is accepted that competition is a dynamic process and that advertising is a central part of that process. A static framework for analysis is clearly inappropriate. For this reason, other studies have attempted to examine how the impact of advertising varies over time. Nelson (1974) provides some empirical support for the information school with an analysis of the relationship between advertising and market share stability. If advertising shelters products from competition, heavily advertised goods should have a more stable market share. He compared drugs, perfumes and toiletries (heavily advertised) to food (less heavily advertised). Food products were found to have the most stable market share and toiletries the least stable.

More recently, Eckard (1987) examined the relationship between advertising and market share stability using US census data for the years 1963, 1967, 1972, 1977 and 1982. He examined the variability of the combined share of the leading firms as reflected in the four firm concentration ratio (CR4). Independent variables were the advertising to sales ratio (ASR), industry size (VS), industry growth (VSG) and industry growth variability (VSGV). There was no evidence that market shares were more stable in industries where advertising was relatively high, suggesting that advertising is pro-rather than anti-competitive.

Eckard's results are given support by Das et al (1993). There work is based on a model of market share instability (MSV) as a function of advertising (ADV), industry growth (GROW), industry sales variability (ISV) and average market share (MS). The model is applied to 163 US manufacturing industries for the period 1978-88. ISV and GROW were both positive, suggesting entry will be easier in industries that are growing and/or have unstable demand patterns. MS was positive. ADV was positively and significantly related to MSV, indicating that advertising has a positive effect on competition.

Mueller (1986) examined the persistence of market power for the leaders in 350 UK industries in 1972 compared with 1950. 155 industries had a stable leadership structure over the period (ie either the same leader, or the same top two firms). The dependent variable in the study was binary - stable or unstable industries. Independent variables were concentration, firm size, change in firm size, advertising and patent intensity. The most significant variable was concentration, suggesting that stable leadership is associated with scale economies. The coefficient on industry size was also positive. Negative values for change in concentration and change in size suggest that industries undergoing structural change are more likely to experience turnover in leadership. Neither advertising or patent intensity were statistically significant.

*(c) Strategic models*

Finally, other studies have attempted to incorporate the more complex market structures suggested by Caves and Porter (1977). Oster (1982) analyses product strategy within strategic groups. In particular, Oster attempts to identify persistent differences in firms' advertising strategies. Data comes from US firms covering 19 consumer goods industries for the period 1971-1977. The ratio of current advertising to the previous year's sales was calculated for each firm. Ten of the original 19 industries appeared to have the kind of clustering of advertising strategies consistent with the existence of strategic groups. Each firm was placed in a group depending on whether its advertising was (1) below or above the industry average for that year, (2) in the bottom versus the top of the industry distribution for that year, (3) in the top or bottom of the histogram of clustering for that year.

In the seven year period for each industry there were 6*n possible group changes, where n is the number of firms in the industry. As it might be expected that it was easier to change strategy in one direction than another, symmetrical and asymmetrical mobility rates were calculated. The incidence of strategic changes was found to be quite low. Asymmetrical mobility rates were in general below symmetrical rates, but had the same general pattern. Results also showed that the more important is past rather than just current advertising, the lower is the mobility rate.

Tremblay (1985) attempts to identify strategic groups in the US Beer market for the period 1950 to 1980. This provides an interesting case for study as it was characterised by two distinct groups. First, four national brewers marketed heavily advertised national brands and saw no group entry or exit. Second, regional brewers marketed popular priced regional brands and the number of firms over the period fell from 382 to just 32. This, Tremblay suggests, indicates the presences of significant mobility barriers protecting the national brewers. The purpose of his research was to test whether advertising had a differing impact for the two groups. Demand was hypothesised to be a function of output, advertising, imports, population and per capita income.

Results suggested no evidence of price taking behaviour. While advertising had a positive impact on demand for both groups, this was only statistically significant for the national brewers. The impact of advertising of the dominant firm within each group was found to be significantly negative for other group members and significantly positive for firms outside the group, supporting the hypothesis that demand asymmetries exist. Advertising rivalry was found to be more detrimental to a firm's demand within groups, with increased advertising generally leading to shifts in market share rather more than overall increases in demand. An important difference between the groups was that the national brewers were better able to generate a premium product image than the regional brewers.

Geroski and Murfin (1991) examine the impact of advertising in the UK car industry for the period 1958-83. They focus on the effect that advertising has on a firm's market share. They hypothesise that advertising will facilitate entry early in the life-cycle of a market when advertising levels are low. This suggests that, at least initially, advertising and competition are compatible. However, advertising will then inhibit entry because acquisition of a large advertising share will become costly. They found that entry was slow and that the advertising rather than price was the main form of post-entry competition. Results supported the view that advertising was pro-competitive for early entrants, but increasingly acted as a barrier to entry. This is interesting as it demonstrates that advertising may be both pro and anti-competitive in the same market, depending on the market's maturity. This suggests that advertising is central to the competitive process.

### *4. Conclusions*

The traditional view of advertising argues that it works by persuading consumers to purchase advertised products, hence increasing both prices and market power of firms who posses heavily advertised brands. Thus, it is argued that advertising is both economically wasteful and damaging to welfare. However, the information view of advertising argues that, in a real world characterised by incomplete information and uncertainty, advertising has an important role to play in providing consumers with information so that they can make better choices. Thus, it is argued that advertising reduces market power and facilitates rather than stifles competition.

While there has been less research into the economic implications of advertising in recent years, this is not to say that it is a dead area for study. Rather, the emphasis of much of the earlier work has been mis-placed. Two primary problems seem clear. First, many studies of the effects of advertising do not provide useful results because they may be interpreted in ways that support both schools of thought. For example increased concentration, profits and prices may be argued as evidence of the abuse of heightened entry barriers from advertising. However, it could also be argued that they are as a result of increased efficiency and providing customers with valuable information. Similarly, any studies involving such variables seem unable to answer fully the problem of determining causality. The second criticism is more fundamental and that is that research has had little to say about the role that advertising has to play in the competitive process. If a more 'Austrian' (or classical in Eatwell's terminology) view is adopted, competition is a process which evolves over time, and advertising is a part of this process. In this sense, the relationship between advertising and market entry is important. While many attempts have been made to judge advertising as an entry barrier, studies have tended to be static. Moreover, advertising's role in the competitive process has not been adequately examined For example, we still know little about the ways in which new firms use advertising to facilitate entry, or the ways in which incumbents respond in terms of their advertising strategies. Such relationships are clearly central to the competitive process.

Thus the fact that empirical studies based on static models have been inconclusive, providing support for both the persuasion and information views of advertising is of little relevance as it may be argued that these results are of little use as they attempt to model an inherently dynamic concept within a static framework. Bearing this point in mind, it is interesting that the dynamic models reviewed, which are based on the more realistic view that advertising will have important consequences which vary over time, suggest that advertising is in fact consistent with a competitive environment. This view of advertising is more in keeping with the views of writers such as Auerbach (1988) and Eatwell (1971), who view competition in broader terms than the unnecessarily narrow definition of the traditional school.

The fact that the debate concerning whether advertising informs or persuades consumers is yet to be resolved need not be a criticism of the studies reviewed. It may be argued that the two primary schools of thought are too polarised and concentration on the 'information versus persuasion' debate has been mis-placed. The mere appearance of informative advertising is persuasive. For example, a railway timetable is clearly informative, but is also meant to persuade travels to use trains rather than other modes of transport.

Whether advertising is instructive itself, it is ultimately informative if consumers try a product or service that they were previously unaware of. It may be argued that in a world of incomplete information and high search costs, advertising has an important role to play in providing consumers with valuable and scarce information. Hence, advertising must be central to the process by which markets evolve. Given this fact, concentration of research on whether advertising informs of persuades seems misguided. Once a more realistic view of competitive processes and market structure is adopted, the interesting question concerning advertising is its role within these processes.

Work on strategic groups suggest impacts of advertising that have differing effects, depending on the nature of market structure and firms involved. It is clear from the work of authors such as Tremblay (1985) and Geroski and Murfin (1991) that advertising has both pro-and anti competitive influences and there is much left to understand about its role within the competitive process.

### *Endnotes*

1. University of Derby

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