Chapter II

Review of Literature
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2.1 Introduction

This chapter deals with a brief review of the previous research work done in the area advertising and market share dynamics, market share and elasticities, determinants of market share, profitability relationship.

2.2. Previous Research Works Related to Advertising and Market Share Dynamics

Mettawa (1975) and Roberts and Samuelson (1988) found that advertising in the cigarette industry is relatively long-lived, while Thomas (1989), Boyd and Seldon (1990) and Landes and Rosenfield (1994) found that advertising appears to be short lived.

Clarke (1976) summarized the early studies of advertising's durability in his survey article. These found a wide range of depreciation rates for advertising, some very high (e.g., 90 percent of the advertising's effectiveness was spent within two months) and some very low (e.g., 90 percent was spent over a period of several years). Clarke showed that the length of the estimated 90 percent duration interval was itself closely correlated with the periodicity of the data used in the study - a problem he termed "data interval bias". On the basis of studies using monthly, bimonthly, or quarterly data -- studies less likely to be affected by data interval bias than those based on annual data - Clarke concluded that "the duration of cumulative advertising effect on sales is between 3 and 15 months; thus this effect is a short-term (about a year or less) phenomenon".

Willis and Rogers (1998) analyzed market share dispersion among leading firms as a determinant of advertising intensity. The study presented a model that more thoroughly characterizes market structure by including the variance in the market shares of the top four firms along with the concentration ratio. This model was tested using a unique 1987 data set of 58 well defined U.S. food and tobacco manufacturing markets that used private data vendors for branded product market shares and media advertising aimed at household consumers. The study found that industry advertising-to-sales ratios were highest in those industries with the highest price-cost margins, highest concentration, and those with equally sized leading firms.
Greuner, Matthias et al. (2000) examined the effects of advertising on profitability in the US auto industry in the 1970s, 1980s, and early 1990s. The results supported the view that advertising makes markets more competitive, not less competitive. They found no evidence that advertising operates as a barrier to entry. They used firm-specific data over a 25-year period to conduct separate time-series analyses on each of the three major firms in the industry. The results were fairly robust to model specification and choice of performance variables. On the whole, their findings strongly suggested that automobile advertising provides a social benefit.

Kelly Bird (2002) estimated the effect of advertising expenditure on market shares using Error correction model. Own and rival’s advertising elasticities for the short run and long run were estimated along with durability of advertising effects. Empirical results showed that the effect of advertising on market share is relatively short lived, appearing to be substantially depreciated within one year for all firms. It is also found that advertising is less effective for foreign firms in the domestic market.

Yang Lee, Chang (2002) examined the relationship between advertising and market structure in Korean manufacturing industries. An empirical analysis of 426 five digit Korean manufacturing industries showed that an inverted U-shaped relationship between the Herfindahl index and industry advertising intensity was observed for consumer goods industries but a lazy J-shaped relationship for producer goods industries.

2.3. Previous Research Works Related to Market Share and Elasticities

Robinson (1984) in his study on market pioneering and market share in consumer goods industries addressed two basic questions. First, did market pioneers tend to hold long-lived share advantages in consumer goods industries? Second, did consumer based advantages, firm based advantages, or possibly both contribute to pioneer share advantages.

Empirically it was found that market pioneers held major share advantages (29% share) relating to late entrants (12% share). The empirical association between order of entry of market share ($R^2=0.18$) was almost as strong as the association between market share and return on investment.
The market share advantages achieved by pioneers through lower relative direct costs (purchasing plus manufacturing plus physical distribution expenditures) were not significant. In addition, pioneers in markets with intensive advertising did not have significant share advantages. Overall, the results pointed order of market entry as a major determinant of market share for this broad cross-section of consumer goods businesses.

Hadi (1992) in his study tried to explain successful market share strategies for market pioneers and non pioneers. It was proposed to test relevant variables hypothesised to affect the market share performance of non pioneers: (1) timing of market entry; (2) marketing strategies employed by non pioneers; (3) product-market relatedness between non pioneers and their parent; and (4) market conditions likely to moderate the association between non pioneers’ marketing strategies and market share performance.

This study confirmed that successful marketing strategies of non pioneers were indeed different from those of market pioneers. The use of causal modeling and LISREL 7 provided insights into not only the direct effects of variables but their indirect effects as well. The study also supported the hypothesis that the effectiveness of marketing strategies varied with the stages of product life cycle.

Mary Lambkin (1992) compared market share winners and losers in pioneering new markets. The results of this analysis indicated that not only was there considerable variation in the performance of pioneers but also this variation was systematically associated with several dimensions of industry structure and competitive strategy. In particular, she concluded that pioneers which invested heavily form the outset in building large production scale, in securing wide distribution and in promoting their products achieved the strongest competitive position and earned the highest long-term returns.

Davis, Peter and et al. (1993) examined the role of the Market share position in the Strategy performance equation. The purpose of the study was to provide a more rigorous assessment of relationships between generic strategies, market share, and profitability. The data used to examine specific linkages in the proposed model were collected as part of a large scale study of business units participating in the US paper and pulp manufacturing industry (SIC code 26).
The study supported the proposition that the role of market share in affecting the business strategy-performance relationship differed according to which strategy was being emphasized in the firm's overall strategic orientation. Recognition of the differential mediation effect would influence decisions made by managers regarding the pertinence of the market share goal in their strategic planning.

Willem Verbeke (1994) analysed the product availability and market share in an oligopolistic market. The nonlinear distribution and market share curve, as well as the push and pull model, developed by Farris et al. has been studied in an exploratory way in the Dutch detergent market. The nonlinear distribution and market share curve and the push and pull model have been observed on the aggregate but not on the individual brand level, except for those that were losing market share. It was concluded that most top brands jump from low distribution to higher distribution and thus to a higher market share. This jumping phenomenon has implications for marketing managers: timing of product development and advertising allocation are crucial.

Dhar (1995) distinguished between cross-price elasticity among manufacturer brands and cross-price elasticity between manufacturer brands and retail brands. The results of their analysis showed that, in those categories in which cross-price elasticity among manufacturer brands was low and cross-price elasticity between manufacturer brands and retail brands was high; retail brand obtains higher market shares and profits for retailers. That is, the higher the degree of substitution between manufacturer brands and retail brands in a category, the higher the market share obtained by retail brands in this category, and the lower the price differential required between both types of brands to maintain or increase market share of retail brands.

Matraves and Rondi (2004) focused on three key activities — manufacturing, marketing, and R&D — that underlie the competitive process in an industry, and their interaction with market size. The study emphasized the role that product differentiation plays, drawing from both the industrial organization (IO) and the strategy literature by considering how the industry environment and firm-specific resources and capabilities affect market share turbulence.
The results strongly supported the prediction of the degree of market share turbulence increased with market size. Conversely, this relation was weakened by competitive investment in advertising and R&D.

**Medina, Oscar and et al. (2004)** analysed the price differentials between manufacturer brands and retail brands in several categories of widely consumed products. They studied the relationship between the price differential and the mean category price with the market share of retail brands, for foodstuff, perfumes and cleaning materials categories and determined the possible connection between the price of a consumer good brand and its real quality.

They found that in the categories of cleaning materials and perfumes there was a negative relationship (considering price differentials in absolute values) between the market share and the price differential. The higher the market shares of retail brands in a certain category, the lower the price differential between retail brands and manufacturer brands and found that in Spain there was not a clear relationship between these variables for consumer goods.

**Resende and Lima (2005)** investigated market share instability in the context of Brazilian industry for the period 1986–1998. The study addressed the issue of market share instability in terms of unit root tests and extended previous methodologies by exploring a panel data structure. The existence of unit root in market share deviations indicated an important degree of market rivalry. Therefore the results based on univariate unit root tests in the context of market share instability indicated a significant degree of rivalry.

Market share often appears as a major concern for business managers as would reflect to some extent the firm dominance within a market. Such emphasis can be theoretically justified, for example, when switching costs are relevant (Klemperer, 1995). The empirical analysis in the topic include Das et al. (1993), Cable (1997), Barla (1999) and Mazzucato and Semmler (1999), and the related literature pertaining to turnover of market leaders as exemplified by Geroski and Toker (1996).

**Sankaranarayanan (2006)** analysed market share and price elasticity in selected Indian consumer durable products for the period 1991-2004. The study found that
Product-wise highest growth rate of sales was recorded by Washing machine, followed by Air Conditioner and price elasticity of market share is relatively elastic.

2.4 Previous Research Works Related to Determinants of Market Share

Weiss, Doyle (1968) analyzed the determinants of market share on low-cost, frequently purchased, brand-identified consumer product. The raw data supporting the subsequent empirical analysis were provided by the Chicago Tribune's Family Survey Bureau, the Harvard Business School, and the marketing policy group of one of the industry's principal firms. The study found that price and advertising interact and does not produce linear effects on either market share or volume.

Battice (1986) examined the use of logit model to create a market share model for industry to aid the marketer in strategic market planning. The model tied in a series of representative variables to market share from eight different marketing groupings. The use of Logit was based on aggregate corporate data instead of individual consumer choice variables, the approach normally employed when applying Logit to marketing studies.

The population for the study was the machine tool industry. A pretested survey instrument was sent to the members of the National Machine Tool Builders Association and models were developed for two industry sub grouping from the collected data. Two years of data were used to develop the models and the data for a third year were held out to be used for test purposes. Both of the models developed were able to explain majority of the observed variance in market share for the samples involved and when the actual share figures for the holdout year were compared to the predicted shares, minimal differences were observed.

It was found that product quality had the greatest effect on market share. Other variables appeared to have an important connection with market share as well, but the results were inconclusive.

Sathien (1986) analyzed the factors affecting market share of United States manufactured computer hardware and software in Thailand. The findings indicated that, the lower end of the market comprising personal and minicomputers was identified as particularly impacted by the increasingly more competitive position taken by Japanese computer manufacturers. Factors reported to have contributed to this situation included
problems encountered in operating, maintaining, and updating American made equipment. Language related factors also were cited as areas of concern for the study participants. The costs involved in purchasing and maintaining computer equipment constituted the most important factors leading to the selection of Japanese over American produced computer technology.

Tony (1987) studied the effects of marketing effort on market share and profitability in the retail banking industry in a selected South Central Mississippi Banks using lag models to: (1) define empirically the relationship between marketing effort and market share; (2) determine empirically the contribution of the various components of marketing effort to market share; and (3) define empirically the relationship between market share and profitability.

The principal conclusions of the research were: (1) Consistency in marketing effort had a significant influence on market share. (2) Pulsing of marketing effort had a significant influence on market share. (3) Threshold effects were evident in the relationship between marketing effort and market share. (4) The effectiveness of the individual components of marketing effort might affect acquisition of market share. (5) The efficiency of the individual components of marketing effort varies with size of the bank and (6) Variables, other than market share, had a significant impact on profitability.

Hula, David (1989) identified the determinants of profitability and market share for firms in twelve broadly defined industries. The effect of market share on profitability was found to vary considerably in magnitude from industry to industry. Although market share did exert a positive effect on profitability in most cases, the effect of market share on profitability was not found to be significantly positive at the 1 % level of confidence in any individual case. This finding, coupled with the highly significant intercept terms of the profitability equations, implies that 'managerial quality' is a very important influence on profitability- perhaps at least as important as market share. The effects of advertising and R&D on market share were also found to vary considerably in magnitude from industry to industry. R&D was found in general to be a much more effective way of increasing firm market share and firm profitability than advertising, and to be utilized more effectively by firms for this purpose.
Leszczyc and Rao (1990) investigated the interaction effect of advertising and price on the market share of a consumer nondurable product. They postulated a model in which local advertising was thought to primarily affect the consumers' purchase by making the demand more price sensitive and national advertising to affect the consumers' preference, thus making the demand less price sensitive. Moreover, they hypothesized that local advertising interaction would have more immediate effect, while national advertising interaction would have longer term interaction effects. They applied these ideas empirically, and found support for their hypotheses.

Kirk (1992) concluded, by means of a consumer survey to assess the factors influencing the decision to purchase retail brands that 67 percent of consumers choosing retail brands instead of manufacturer brands considered price as a crucial factor and behaved as consumers aware of price.

Hu, Ming-Wen (1996) examined the determinants of the share of SMEs. The results demonstrated that SMEs that maintained their relative labor productivity decisively to influence their share in Taiwan’s manufacturing industry. All the variables that depicted entry barriers, e.g. capital – labor ratio and average age of a firm, proved that had harmful effect on Taiwan’s SMEs. This conclusion resonated the results based on samples from the U.S., Canada, and Germany. The results showed that Taiwan faced a transition in industrial development process. First of all, the shortage of cheap labor produces a direct impact on SMEs' sectors which used to cling to more labor-intensive technique than larger firms. Even though the labor market in Taiwan has become closer to an efficient one, the drastic rise in the basic wage rate recently stopped SMEs from profiting by an increase in labor quality. Contrary to 1986, in 1991 the SMEs' relative wage rate did not project a significant effect on their market share.

Irandoust (1996) focused on the determinants of market performance in the car industry. Trade and market patterns were studied using firm-level international data. Econometric models were developed and evaluated for a sample of firms from the major producing countries for the period 1970-1985. Among the factors responsible for the market shares of the different firms were international differences in unit labour costs, income levels, the European Community (EC) and locally based production scales and transaction costs in the form of trade barriers.
Golias and Yannis (1998) studied the determinants of combined transport’s market share. Forwarders and carriers were treated separately as the former were found to have a significantly more positive approach towards combined transport than the latter. The analysis showed clearly that due to the limited development of the required infrastructure, the most important parameter affecting the future combined transport market share was the level of financial aid to the transport operators for the purchase of the required combined transport equipment. Furthermore, changes in trip cost, trip time and company annual profits due to combined transport were the parameters affecting the combined transport market share.

Raghavendra Rau (2005) investigated the determinants of the market of investment banks acting as advisors in mergers and tender offers. In both mergers and tender offers, bank market share was positively related to the contingent fee payments charged by the bank and to the percentage of deals completed in the past by the bank. It was unrelated to the performance of the acquirers advised by the bank in the past. In tender offers, the post-acquisition performance of the acquirer was negatively related to the contingent fee payments charged by the bank, suggesting that the contingent fee structure in tender offers ensured that investment banks focus on completing the deal.

Kato, Masatoshi and Honjo, Yuji (2006) examined the determinants of market share instability of leading firms to address the dynamics of competition in Japanese manufacturing industries using a newly constructed panel data set. The study included 109 industries for the analysis over the period 1995–2001.

The study found that there was a significant relationship between concentration and market share instability, and the market shares of leading firms were more stable in highly concentrated industries, whether measured in “absolute” or “relative” instability terms. The study also provided the evidence that industry growth had a significantly positive effect on market share instability.

Sankaranarayanan (2006) examined the determinants of market share in consumer durable products and concluded that Advertising expenses and Prices are the most significant determinant of market share of Indian consumer durable products.
2.5. Previous Research Works Related to Market Share and Profitability Relationship

Shepherd, 1972; Gale, 1972; Schoeffler, Buzzell and Heany, 1974; Buzzell, Gale and Sultan, 1975; Rumelt and Wensley, 1981 found a positive and often significant association between market share and profitability. The potential role of market share in determining profitability was discussed by Brozen (1971) and Demsetz (1973). They suggested that a positive relationship between profits and market share at a firm level implied a positive profit-concentration relationship at the industry level.

Newton (1983) used Profit Impact of Marketing Strategy (PIMS) data, covering the cement, pharmaceutical, and food distribution industries. He pointed out two serious problems concerning the concepts of product markets and return on investment. Most large companies were active in a number of product markets and hence it was difficult to define a homogeneous market composed of companies which compete directly with one another. Thus it was not “easy” to measure market share. Second, return on investment could be severely distorted by mergers, acquisitions, divestitures and changes in the amount of treasury stock. Although he approached the relationship of market share and profitability with a very critical eye, it was concluded that management expertise resulted in superior return on investment, market share or both.

Hergert (1984) used return on assets regressed against market share on nearly 5,400 businesses and 76 industries and concluded that the alleged association between market share and profitability was not strong enough to warrant strategic marketing and management decisions to press for market leadership.

Smirlock (1985) performed an analysis of financial statement data from 2700 banks located in states with limited branch offices to the country in which the main office was located. As a result, the markets were clearly defined by geographical boundaries, without overlap. Banks in each market competed directly with one another for the loan and deposit business of a clearly defined group of individuals and businesses. The results of the regression analysis revealed a strong positive relationship between market share and profitability.

Prescott, John E and et al. (1986) examined the nature of this relationship across taxonomy of homogeneous environments. They concluded that the relationship...
between market share and business profitability was context-specific. While the
type relationship was found to be direct in three environments, it was predominantly spurious
in four other environments. Even in environments with a strong direct effect, a sizeable
spurious relationship was present, indicating that the pursuit of market share as a goal
might be done cautiously.

**Venkatraman and Prescott (1990)** assessed the stability of the nature of
relationships among strategic resource deployments, market share position, and
profitability across two different time periods representing significantly different macro
economic conditions. The results indicated that the general level association (i.e. correlation)
between Market share and Business Profit (MS and BP) was stable, but the set of
significant strategic factors contributing to both MS and BP was different, indicating
variations in strategies for the two different cycles.

**Kurtz, Robert and Rhoades, Stephen (1992),** analysed whether there was a
breakpoint or critical level in the frequently observed relationship between firm market
share and profit rate. The analysis focused on the banking industry and used a sample of
10,690 firms located in 2165 different local geographic markets.

The main findings of the study were that (1) in general, firm market share was
directly related to profitability; (2) the firm market share variable remained positive and
significant when controlling for market concentration either with concentration as a separate
independent variable or by conducting tests with sub samples of firms that were in markets
with similar concentration ratios; and (3) while there was no sharp breakpoint in the market
share-profitability relationship, the results indicated that profit rates of firms increase at a
decreasing rate up to a share of about 55 per cent.

**Szymanski et al. (1993)** examined the validity and generalability of the reported
relationship between market share and profitability of 276 findings from 48 studies. Study mainly focussed on market share and profitability relationship and found that on an
average, market share had a positive effect on business profitability. However, the
magnitude of the market share-profitability relationship was moderated by model
specification errors, sample characteristics and measurement characteristics.
Fraering and Minor (1994) conducted a follow-up study to verify Shanklin’s (1988) findings whether a positive relationship existed between market share and return on total assets, as well as the absence of market share leadership did not preclude achievement of superior profitability. Results of their study did not support the findings of Shanklin. Overall analysis of the data in this study indicated a very weak inverse relationship between market share and return on assets. They concluded that the positive relationship between market share and profitability was questionable, except in certain industries.

Feeny and Rogers (1999) found a U shaped relationship between market share and profitability, with higher levels of profitability associated with market shares exceeding 30 per cent.

Johnson, Bjarni (2007) investigated the relationship between size of firm and its profitability among Icelandic firms, particularly fisheries and fish processing, banks and engineer consulting firms. 250 Icelandic firms were analysed over a 5 year period, particularly looking at fish and fish processing firms, banks and civil engineer consulting firms.

The analysis showed that size had no statistically significant effect on profitability, irrespective of how profitability or size was measured. However, a weak reverse relationship between size and profitability was observed for all firms and for fish and fish processing, with the exception of fisheries and fish processing in 2004, when it was positive.

Buzzell et al. (1975) found a strong, positive relationship between market share and profitability. Hergert (1984) documented that market share and profitability appear to be positively related on average, but the relationship is weak overall and non-existent in many industries. Smirlock (1985) found that bank branches whose markets were clearly defined by geographic boundaries with no overlap had a strong positive relationship between market share and profitability; however, Markell et al. (1988) concluded that the link between market share and profitability is an occasional phenomenon rather than a universal law. Fraering and Minor (1994) suggested that the link is so unclear that firms should take heed before embarking on a strategy of increasing market share in order to increase profitability. Sankaranarayanan (2006) found a weak and insignificant
relationship found between market share and profitability. These studies used various measures of profitability including return on investment (ROI), return on assets (ROA), and cash flow from investments. In sum, the results on the relationship between market share and profitability range from no significant association to a strong positive association.

2.6 Conclusion

In this chapter, it is evident that Indian studies on market share related aspects are very few and scanty and in order to fill up these gaps this study has been undertaken.

Earlier studies related to advertising and market share dynamics, particularly Indian studies are few and scanty. We find several studies have been undertaken to identify the determinants of market share in different industries. But there are not many studies relating to the influence of marketing variables on market share in a particular industry. This study is attempted in that direction.

Previous research investigating the relationship between market share and profitability has produced equivocal and contradictory results. In this study, we tried to examine the relationship between market share and profitability with particular reference to selected Indian consumer durable products.

In the area of market share gain or erosion, cross and advertising elasticities and advertising and market share dynamics and durability of advertising effect on sales, particularly Indian studies are very few and scanty. Hence this study is undertaken to examine these research objectives as well.
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