

## CHAPTER III

### LITERATURE REVIEW

Examination and modelling competitive behaviour of firms has been central to the disciplines of industrial organisational economics, strategy (business policy) and marketing. Since their formative period, studies in these fields have been occupied with attempting to explain differential business performance. Primarily these studies were conducted to aid public policy making. Capitalising on initial work done and research breakthroughs, the disciplines of strategy and marketing specifically focused on the determinants of successful firms which in turn could generate normative insights to guide managerial decision making. While an analysis of variance in performance does not firmly establish causal relationships, it helps locate decisive factors connected with superior performance and it also provides firms with rewarding learning avenues. Moreover, research in these areas can help practising managers to be more effective by identifying priorities of strategic importance.

Largely, six schools of thought have contributed toward explaining differential firm performance. Literature reviewed, too, has accordingly been classified on the following lines:

1. The Classical Industrial Organisation (IO) school.
2. The Revisionist school
3. The New Industrial Organisation (IO) school.
4. The Business Policy school/ The PIMS paradigm

- 5 The Austrian School
6. The Resource Based School.

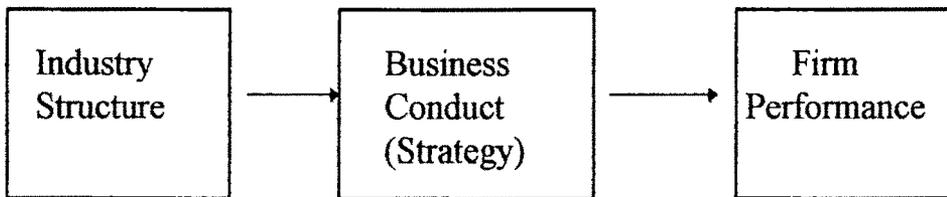
### **1.0 The Classical Industrial Organisation (IO) School**

Based on the work of Bain (1951, 1962), this school proposes that *industry structure* influences *firm conduct* (or strategy), which in turn influences *performance*. Figure 3.1 depicts this conceptualization. Popularly known as the *structure-conduct-performance* (S-C-P) paradigm, this stream of research was motivated by public policy considerations. Performance was defined broadly and with a micro economist's focus on social efficiency of factors of production. In this conceptualization, performance embodied (among others) the following goal: the distribution of income should be equitable. This implied that producers do not secure rewards far in excess of what is needed to call forth the amount of services supplied. A sub-facet of this goal was the desire to achieve reasonable price stability (since inflation invariably distorts the distribution of income). Conduct of strategy was the firm's choice of decision variables such as the advertising and promotional strategy to be adopted. Industry structure was defined as the relatively stable economic and technical dimensions of an industry that provided the context in which competition occurred and the primary elements of industry structure that were identified as important in this stream of research were barriers to entry, industry concentration, product differentiation and the overall elasticity of demand (Bain 1968).

Figure 3.1

**Structural School : The Structure-Conduct-Performance Paradigm**

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The classical IO researchers argued that as industry concentration increased beyond a critical point it led to collusive increases in price by firms in that industry which in turn is reflected in the profit rates of the firms. Oligopoly theory (Cournot 1963) predicts that there will be an increase in price with concentration, and this provides the theoretical rationale for the IO research. Although there are a number of oligopoly theories, the differences among them on this issue is a matter of functional form, not direction (Weiss 1989). As illustrative, Cournot's oligopoly theory posits that there will be an inverse relationship between price in the market and the number of sellers.

The Cournot model yields a profit predictions as well. With a straight line demand, total industry profit declines as the number of firms rises. Confidence in the prediction that profitability will be positively correlated to industry concentration is further buttressed by the assumption that collusive behaviour is more likely in concentrated markets. Another set of theories identifies the conditions for the presence of successful collusion, tacit or explicit. According to Chamberlin (1956) firms act independently but as their market shares increase beyond a critical point', these firms recognize their interdependence, and begin to act collusively. In other words, beyond a critical concentration ratio, collusion will occur. A similar conclusion was arrived at in the modified version of Chamberlin's model (Boulding 1966).

Stigler (1964) developed another theory of collusive oligopoly. In his conceptualization firms with large market shares can detect secret price cutting by rivals more readily than small firms, and the ability of leaders to identify secret price concessions increases at an increasing rate with concentration. Therefore, in a situation of few firms



with large markets shares in the market place, collusion and collusive price increases are predicted

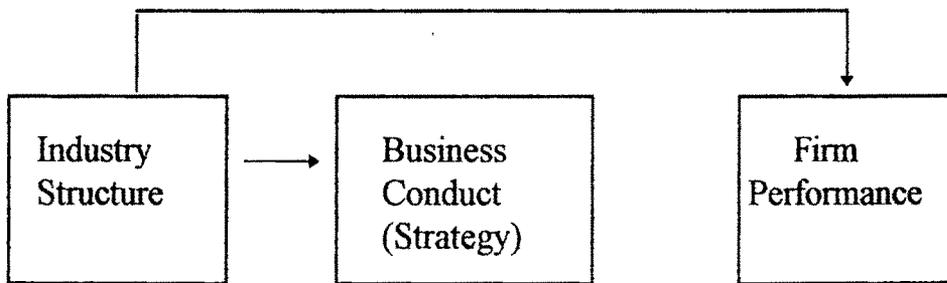
In the Classical IO school, structure was the construct of primary importance. Although initially conceptualized to be of secondary importance, conduct was consistently ignored in empirical studies. In fact a more accurate picture of this school is indicated in figure 3.2. The justification for this practice lies in the following observations made by Bain (1968, p 326-27, 344-45)

"Because of the potential for wide variation in pricing aims pursued under complete collusion, incomplete collusion, and interdependence of sellers without collusion, a very wide range of alternative performance possibilities may be attributed to each pattern - a range roughly from the full monopolistic pole to the near competitive pole. These ranges of possible performance evidently overlap so thoroughly that it is difficult to distinguish meaningfully the predictable performance consequences of the three patterns of interseller co-ordination, except in a broad average sense. In terms of broad statistical averages, we might expect incomplete collusion, and possibly interdependent action, to lead to somewhat more competitive results than complete collusion.

A convincing and useful distinction can be drawn, given the relevant amount of information available, between the performance tendencies of completely independent seller action on the one hand and all forms of nonindependent action on the other. The former should lead in the great bulk of cases to more competitive results. Such distinctions can be made practically among different patterns of nonindependent market conduct <sup>that</sup> have slight value as the for case-by-case predictions concerning market performance"

Figure 3.2

**Structural School : The Revised Structure-Conduct-Performance Paradigm**



Based on an empirical study of four industries, Bain argues

“Available evidence from conduct patterns per se, even in intensively studied cases, do not ordinarily reveal enough to support meaningfully precise inferences about the aims of price-calculation pursued, or predictions of the associated market performance. Knowing only what is evident about conduct, there is no clear basis for differentiating the four in terms either of predicted performance or actual patterns of market conduct. Actual patterns of market conduct cannot be fully enough measured to permit us to establish empirically a meaningful association either between market conduct and performance or between structure and market conduct. It thus becomes expedient to test directly for net associations of market structure to market performance, leaving the detailed character of the implied linkage of conduct substantially unascertained.”

Teece (1984) provides additional reasons as to why conduct (strategy) was ignored by the IO school. (a) a stronger concern for consumer welfare and policy than individual firm performance, and (b) an emphasis on formal quantitative modelling of firm conduct that requires simplification of managerial attributes and behaviours

## **1.1 Empirical Findings**

Substantial number of studies based on the structure-conduct-performance (SCP) paradigm have been conducted. An early review by Weiss (1974) reported forty six cross-sectional studies. Gilbert (1984) uncovered forty five studies in the U.S banking industry alone. A recent meta-analysis lists over 100 studies examining the relationship

between concentration and profit (Capon, Farley and Hoenig 1990) In this section, a brief overview of the empirical research is attempted

Bain (1951) was the first test of the SCP paradigm He used data on 42 industries, eight-firm concentration ratios and profit measured as return on equity. Although a strong linear relationship between concentration and profit rates was not found, he surmised that

“The positive conclusion that does emerge is that there is a rather distinct break in average profit rate showing up at the 70% concentration line and there is a significant difference in the average profit rates above and below this line ” (Bain 1951, p 314).

He also reported that the effect of concentration cannot be explained by firm size, percentage overhead, capital-output ratios, product durability, or buyer type.

Stigler (1963) attempted to test the concentration-profit hypothesis using four-firm concentration ratios and return on assets as the profit measure. He subdivided the sample into a high concentration group (four firm concentration over 60%) and a low concentration group (four firm concentration below 50%) His findings did not support the hypothesis.

Brozen (1971) analyzed FTC (Federal Trade Commission) data for practically the same period as Bain(i.e., 1930 and 1940) He found that the earnings of the concentrated and unconcentrated groups of industries were virtually identical Industries with concentration ratios greater than 70 percent earned only a statistically insignificant 0.07 percentage points more than the unconcentrated group Borzen points out that the difference between his and Bain's study were due to the biased sampling adopted by Bain. Bain used only industries for which SEC reported profits for more than two firms Brozen,

on the other hand, used all firms for which SEC reported profits. Bain, by using a biased sample, included industries, where on an average, the leading four firms in concentrated industries were more profitable than the rest. By raising returns for the concentrated group and lowering them for the unconcentrated group, Bain's study increased the apparent difference between them.

Analysing the data further, Brozen (1971) found that larger firms earned more than smaller ones in seven out of nine concentrated industries groups, while only two of the seven did in the unconcentrated industries group. From this, Brozen surmised that concentrated industries got concentrated because they generated efficiencies that favoured larger firms. The smaller firms had not yet adjusted by dropping out or growing up, and in the interim were earning less. In the unconcentrated group of industries, the contrary was happening. In this group, the smaller firms had been better able to adjust to whatever had occurred, while the larger firms had not yet shrunk or dropped out. Smaller firms earned more because they had made better adjustments. From all of this, Brozen concluded that the data on profits and concentration support the theory that market forces concentrate industries where efficiency calls for greater concentration, and deconcentrate where efficiency calls for less concentration. Other early empirical studies, which were primarily bivariate correlations between concentration and profits, found in most cases a significant and positive relationship, with the notable exception of work by Stigler (1963) and Brozen (1971). For instance, a survey of fifty-four empirical studies utilizing both domestic and international samples found a robust tendency for a positive association between

concentration and profitability (Weiss 1974) However in many cases the correlation's were weak

Studies reviewed examining the concentration-profit relation of the structure-conduct-performance paradigm employing domestic and international samples reporting significant results were

Bain (1951, 1962); Stigler (1963), Minhas (1963), Mann (1966); Hall & Weiss (1967), Lustgarten (1971), Imel & Helmberger (1972), Telser (1972); Thomadakis (1977); LaFrance (1979); Neumann, Bobel & Haid (1979), Jenny & Weber (1976), and Caves & Uekusa (1976).

Studies reviewed of the same reporting non-significant results were Collins & Preston (1969); Ornstein (1973), Comanor & Wilson (1967), Vernon & Nourse (1973), Martin (1979), Brozen (1971), Boyer (1974); Strickland & Weiss (1976), Bradford & Caves (1982); Lindenberg & Ross (1981), Weiss (1963), Whittington (1971), Hart & Morgan (1973); Jacquemin Ghellinck & Huveneers (1980), Clarke (1984), and Nagesh Kumar (1990)

Studies reviewed of the same reporting negative results were Porter (1974), and Connolly & Hirschey (1984) Majorly the goal was to examine the concentration - profit relationships, while many of the studies required did take other variables as well Taken together, these studies suggest the following:

- 1 Thirteen of the twenty four bivariate correlation studies (54%) found the relationship between concentration and profit to be positive and significant, and a further seven studies (29%) found the relationship positive but not significant

2. Of the bivariate correlation studies, only 17% found the relationship to be negative, and of that only half found it to be significant
3. Of the multivariate studies, fifteen out of the forty studies (37.5%) found the relationship to be positive and significant and five (12.5%) of the studied found the relationship negative although non-significant
4. Of the multivariate studies, fifteen out of the forty studies (37.5%) found the relationship to be negative and significant, and five (12.5%) of the studies found the relationship negative, although non-significant

In summary, multivariate-studies, unlike bivariate correlation studies, were less likely to find a positive concentration-profit relationship. In other words, studies which controlled for other factors were likely to find results to the SCP paradigm predictions. However, the meta-analysis study conducted by Capon, Fearly and Hoenig (1990) finds the net effect of concentration on profit to be positive.

## 1.2 Criticisms

Four broad sets of criticisms can be levelled against this stream of research

(1) *Lack of theory and model under-specification* This criticism will be mentioned in passing here, as it largely forms the logical basis for the Revisionist/Efficiency school discussed next. Studies examining simple bivariate correlation, are open to the criticism of likely omitted variable bias. By not modelling plausible other variable (for example, conduct/strategy variables) the variance likely to be explained by the nonspecified/omitted

variable is manifested on concentration (See Kmenta 1971 for a further discussion on omitted variable bias) As an illustration, Comanor and Wilson (1967) found that after taking advertising expenditure and capital requirements into account, there no longer existed any correlation between concentration and profit (i.e. there was no unique relation between concentration and profit)

The revisionist/ efficiency school argues that it is efficiency that drives profits and not concentration. Demsetz (1973) contends that efficient firms drive out inefficient firms and the markets become concentrated, furthermore, he argues that by not specifying efficiency in the model, a spurious correlation is induced between concentration and profits

(2) *Possibility of collusion* The presence of collusion among firms in an industry is a necessary condition for the achievement of a significant positive relationship between industry concentration and profits according to the Structure-Conduct-Performance paradigm. Stigler (1964) in studying the possibility of collusion examined the conditions contributing to the enforcement of effective cartels. A necessary condition for a cartel to be effective is the ability of the participants to detect secret price cutting. Stigler's theoretical analysis indicated that it takes relatively few firms to reduce significantly the gains as well as possibility of collusion.

A similar picture regarding the likelihood of collusive behaviour is found in the experimental literature. Experimental economics studies indicated that when two or three sellers exist in a market, collusive outcomes are difficult to establish much less sustain, and Nash equilibrium abounds (Plott 1989).

(3) *The role of entry barriers.* According to the Structure-Conduct-Performance paradigm, the persistence of the concentration-profit relationship in a market is made possible by the presence of entry barriers. Entry barriers have been defined as the advantage of established sellers in an industry over potential entrant sellers, these advantages being reflected in the extent to which established sellers can persistently raise their prices above a competitive level without attracting new firms to enter the industry (Bain 1962)

Two types of criticism are found in the literature about entry barriers, Demsetz (1974) argues from a conceptual viewpoint that expenditures on advertising and capital outlays are both needed to produce and sell products. These expenditures are no more barriers than are expenditures on labour and material. Alternative, if one views barriers as the ability of existing firms to be more efficient in the employment of advertising and capital inputs than firms not in the industry, then it is an indicator of efficiency, and not presence of a barrier. In effect, Demsetz's contention is that theoretical support of the market concentration doctrine is weak at best and non-existent at worst.

More recent research argues that entry barriers as a determinant of performance can lead to costly errors (McWilliams and Smart 1993). The investment in entry barriers are unlikely to lead to superior performance because firms constructing barriers to entry are subject to a "free rider problem" (Oster 1990). Since barriers to entry are industry level phenomena, a single firm investing resources in building barriers bears the cost, whereas the benefits will be reaped by the other incumbents in the industry (McWilliams

and Smart 1993) Hence it seems implausible that organisations will build barriers to entry as suggested by literature stream

(4) *Homogeneity assumption of all firms within an industry* The paradigm was developed to explain and predict industry level phenomenon and makes the assumption that all firms within an industry are homogenous (Rumelt 1991) The new IO school (discussed later) modifies this assumption, by examining homogenous clusters of firms within an industry, called strategic groups. More recently, it has been argued that firms are bundles of resources and skills and in many cases these resources and skills are idiosyncratic to a firm Therefore the assumption of homogeneity made in the Industrial Organization research, in the interest of analytical convenience is questionable

### **1.3 Conclusion**

The structure-conduct-performance paradigm argues that the key determinants of profits is the structure of the industry in which the firm operates Using concentration as a proxy for industry structure, the industrial organization economists, labelled as "structuralists" present the positive correlation between concentration and profits as evidence for their case Empirical results have been mixed The empirical studies appearing prior to early 1970s, which were predominantly univariate studies, generally found a positive correlation between concentration and profitability, but some of the studies appearing since (most of them had more than one independent variable) then have found no positive correlation, and even negative correlations between concentration and profitability

A number of questions have been raised about the validity of the arguments made by the structural school. Model underspecification, lack of theory, and questionable assumptions are among the criticisms levelled against the SCP paradigm. However, proponents of the SCP paradigm have been quick to argue that more recent studies are biased against finding a positive correlation between concentration and profits (Ravenscraft 1983). Schmalensee (1985) has argued that the structural theory looks so bad because of inflation, badly measured industrial structural and profits, and cyclical long-term disequilibrium.

A strong concern of strategy researchers has been that the analysis conducted by the industrial organisation economists amongst different industries has been used to develop policy prescriptions for managers within industries (Mcgee 1988; McWilliams and Smart 1993). As far as this dissertation study is concerned, the presence of mixed findings suggests that the industry structure may still be a relevant predictor of performance. By not incorporating it in a performance model, this study would also be committing a model specification error. Therefore, in the integral model developed in this study, industry structure may still be a relevant predictor of performance.

## **2.0 Efficiency/ Revisionist School**

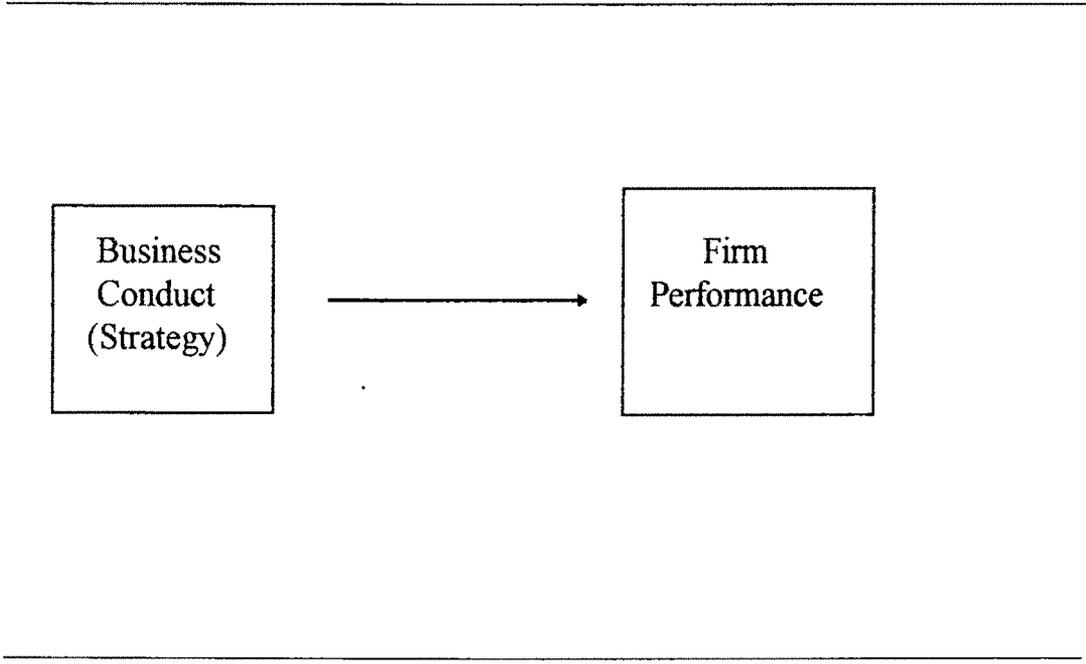
Building on the critical inadequacies of the SCP paradigm was a school of research called the revisionist or efficiency school. The efficiency paradigm posits that the key driver of performance is the efficiency of a firm and proponents of the paradigm do not

view the relationship between concentration and profits as plausible (Bork 1978, Demsetz 1973, Mcgee 1988) Proponents of the efficiency view argue that more efficient firms possess superior characteristics - methods of organising production, providing services, and establishing buyer confidence, lower costs and satisfying consumer demand better - that in turn increase their market share (Demsetz 1974) This in turn forces most marginal firms out of the market As efficient firms grow larger, their number gets fewer, especially since the inefficient firms exit the market and the industry becomes concentrated Figure 3.3 depicts this paradigm Since efficiency is not modeled in the SCP paradigm, concentration is correlated with profits.

According to the efficiency paradigm, entry barriers are not necessary for firms to achieve superior profits. Above average profits are a temporary phase in industry evolution. As other firms note the above average profits made by a few efficient incumbents, resource reallocation takes place leading to either entry or increased capacity by incumbents (Jacobson 1988) According to the efficiency paradigm, there occurs continual reallocation of resources to the highest valued opportunity (Fisher *et. al* 1983). Industry equilibrium may or maynot occur depending on the ability of the new entrants to replicate what incumbents have achieved and replicate their cost structures. Thus, unlike the SCP paradigm which argues that incumbents through collusive power and use of market power raise prices, the efficiency paradigm posits that through superior innovativeness of managerial skill these firms can lower their costs, increase their size and make above normal profits (Demsetz 1973;1974) In fact, raising prices would

**Figure 3.3**

**The Revisionist/Efficiency School**



encourage firms with less efficient cost structures into the industry, and therefore the route to superior performance is through lowering costs

From a policy prescription point of view the SCP paradigm recommends a need to deconcentrate industries where above normal profits are achieved. The efficiency paradigm, on the other hand, recognises the ability of efficient firms to take advantage of scale and scope economies, but it is the superiority in innovation and/or managerial quality that may be difficult to imitate, that helps achieve a position of industry leadership. Post hoc analysis identifies a correlation between size and profits, which is then attributed to scale economies by the structuralists. But to the proponents of the efficiency paradigm it is due to the inherent ability to lower cost and introduce superior new products that leads to increase in size and above average profits. A move to deconcentrate such industries is likely to increase cost, not decrease cost, and thereby from a public policy point of view penalize superior performance (Demsetz 1974). Bork (1978) on theoretical grounds, contends that deconcentrating industry structure by legislative activity would hurt consumers since it would dissolve efficient firms and raise costs. Unjustified (by means other than superior efficiency) high market shares would be eroded by competition (McGee 1988).

McGee (1988) presents reasons as to why efficiency explanations were ignored in the industrial organisation literature :

1. Empirical data to test this explanation was not available. Available data was of questionable quality.
2. The belief system of researchers was dominated by the structuralists

- 3 Predomination of conventional wisdom which suggested that (a) economies of scale are the only relevant economies, and (b) these economies dissipate at relatively small firm sizes, thus makes larger sizes unjustifiable

Thus according to McGee (1988) economists who believed in the efficiency explanation blamed poor data, while those who believed in the structuralism viewpoint did not take the efficiency explanation seriously

## **2.1 Empirical Research**

The first empirical test of the efficiency hypothesis was Demsetz's (1973) efforts. Prior to that Brozen (1971) published efforts that were termed as "antecedents" to Demsetz's path breaking effort (Scherer 1990). For example, based on an examination of several industries, McGee argues that (i) large firms in concentrated industries earned higher average profits than smaller firms, and by definition the profits of larger firms are weighted more heavily in calculating average profits of concentrated ones, and (ii) monopoly is not the reason for the high profits. The costs of these firms are lower and consumers prefer their products or both. In other words, superior efficiency produces higher than average profits (McGee 1988).

Demsetz (1973) conducted the first test of the efficiency hypothesis. Using ninety five 3-digit industries as his sample and 1963 as the period, he sorted firms in each industry into four different asset size class. The rate of return for the smallest firm did not increase with concentration, and similar results were found across the classes of smaller firms. He also found that with increases in concentration, the differences in earnings

between small and large firms increased Demsetz argued that this provided empirical support for his efficiency hypothesis

Peltzman (1977) provided a more direct test of the efficiency hypothesis. Based on a study of one hundred and sixty five 4-digit manufacturing industries for the period 1947-1967, he concluded that “more concentration raises profitability not because of price rise, but because they fall less than costs...Most practitioners have chosen to interpret the profitability concentration relationship as evidence for collusion. A minority has emphasized the concentration-efficiency nexus The emphasis here is consistent with an eclectic view, but one in which efficiency effects predominate” (Peltzman 1977,p 257, 262-263)

Studies examining the efficiency hypothesis reviewed were . Carter (1978); Porter (1979); Chappell & Cottle (1985), Allen (1983), Demsetz (1973), Round (1975), and Peltzman (1977). Similar to the empirical effort examining the SCP paradigm, the results are mixed. For example, Clarke, Davis, and Waterson (1984) examining U.K data find both efficiency and market power effects at work Porter (1979) in developing the case for strategic groups, suggests that it is mobility barriers, rather than efficiency that protects relatively successful firms.

A key proponent of the SCP paradigm, Weiss (1974) argued that the correct test of the efficiency hypothesis would be a study that takes market share and concentration into account at the same time In this test, market share could be a proxy for superior products, superior management as well as scale economies. A number of studies have attempted to do so

An early study by Gale (1972) found a strong positive relation between the weighted average market share and profitability of large U S firms. Not only do the results support the efficiency hypothesis, but they were also inconsistent with the structuralism viewpoint that economies of scale peter out at output levels corresponding to low market shares (Scherer 1990). More recent efforts of Ravenscraft (1983) using a multivariate regression analysis found that profits were related to market share, but not to concentration. Later work on the line-of, business data, by key structuralists (Scherer et.al 1987) also suggested that market share effects were more powerful explanators of performance and concentration effect was in effect negative

## **2.2 Limitations**

Two broad sets of criticisms could be raised against this school of thought

*Conceptual/definition limitations.* Although the efficiency hypothesis is logically compelling, no clear conceptual definition of efficiency effects have been attempted. In empirical studies, researchers have utilized varying operational definitions of efficiency. In a majority of studies testing the efficiency hypothesis market share has been used as a proxy for efficiency. Business policy researchers, on the other hand, have used market share as a proxy for competitive position. Hence, without a clear cut conceptual definition, it is not easy to identify if the empirical work conducted on the hypothesis has value.

*Empirical research* To a certain extent the results have been mixed. Clarke, Davies and Waterson (1984) did not find unequivocal support for either of the two explanations, rather they found both efficiency and market power explanations to be plausible. Scherer

(1990) has questioned the validity of some of the studies that found support for Demsetz's hypothesis. Porter (1979) argued that his results indicated the presence of mobility barriers and strategic groups, and did not support the efficiency hypothesis. Finally more recent work by Martin (1993), Kwoka and Ravenscraft (1986), Cotterill (1986) and Scott and Pascoe (1986) suggests the presence of a variety of complex firm-specific intra-industry effects not easily explained by Demsetz's hypothesis

### **2.3 Conclusion**

In spite of the compelling logic of the theoretical perspective, empirical support has not been overwhelming. Besides the results being mixed, it also appears that the efficiency explanation is a complementary explanation for explaining performance. In other words, both industry structure and efficiency effects explain variance in performance. In the integral model presented in the next chapter, a similar approach is taken.

The efficiency paradigm however has changed the unit of analysis from the industry to the firm level. From a managerial point of view, this perspective has a great deal more of relevance. It provides the manager a more actionable approach. In regard to public policy, it supports an anti-regulation point of view by suggesting that above normal profits are not due to collusive behaviour and monopolistic conditions, but due to the superior efficiencies of the firm. The focus on managerial quality and innovative ability, which are usually firm-specific is also adopted in the resource-based view of the firm, an emerging theoretical perspective which forms the cornerstone of this research endeavor. However, as outlined later, the resource-based view provides a more in-depth analysis of firm specific attributes.

### **3.0 The New Industrial Organization (IO) School**

Developing from two separate viewpoints, one emanating from IO economics, and the other from the business policy discipline, the new IO school introduced the strategic group concept. A key assumption of structural IO economics is the homogeneity of firms within an industry. However, some researchers have questioned this assumption. The work of revisionist economists such as Demsetz (1973), raised questions regarding the validity of such an assumption. The revisionists argued that firms differed, in respect of efficiencies, and were not homogenous. Acknowledging the questionable assumption of traditional IO research, more recent efforts have attempted to identify much finer (homogenous) grouping than the industry. Strategic groups have been defined as a set of firms that compete within an industry on the basis of similar combinations of business scope (target market segments; types of goods/services offered, and geographic reach) and resource commitments (Cool and Schendel 1987). Research on the strategic groups suggests that based on a particular set of dimensions, there will be a number (from one - all firms compete on the same dimensions, - to the total number of firms in the industry - each firm competing on an unique set of dimensions) of strategic groups in an industry, within a strategic group however, most of the assumptions of traditional Industrial Organization apply. For example, firms within a strategic group are assumed to be relatively homogenous, while those across strategic groups are relatively heterogeneous. Akin to the expectation of structural economics that there would be an industry membership--

performance relationship, the basic hypothesis of the new IO research was that there will be a strategic membership-performance relationship

Mobility barriers which inhibit easy/costless entry into a strategic group are akin to entry barriers which in turn inhibit easy/costless entry of new firms into an industry Porter (1979) provided the presence of mobility barriers as a counter-argument to Demsetz's efficiency hypothesis. Porter argued that if some firms are more efficient than others, there must be "some factor" preventing the inefficient firms from copying and achieving similar levels of efficiency as the efficiency firms He points out that the revisionist school provides no clear rationale for the non-imitability of the superior efficiencies of the "efficient" Porter contends that the efficient firms belong to a strategic group, while the inefficient firms belong to another and it is the presence of mobility barriers that prevent firms from travelling from one strategic group to another In other words, strategic group research is based on assumptions similar to those of traditional Industrial Organisation economics, albeit at a different (lower) level aggregation.

Using size as an indicator of strategic group membership, Porter (1979) divided 42 consumer goods industries into "Leader" and "Follower" groups He posited that the leader group should encompass those strategic groups in the industry which are characterized by (a) strategies focused on achieving economies of scale (b) broad product lines, and (c) large sales forces. The follower group was expected to focus on (a) specialist or narrow-line strategies, regional strategies and non-integrated strategies. Porter hypothesised that there would be significant performance difference between the two groups. Although the

leader group performed better than the follower group, the results were not significantly different.

### **3.1 Empirical Research**

A number of researchers have attempted to examine the presence of strategic groups using a variety of dimensions. Studies of the New IO school reviewed were Hatten & Schendel (1977); Porter (1979), Oster (1982); Frazier & Howell (1983), Dess & Davis (1984); Hawes & Crittenden (1984), Cool & Schendel (1987), Mascarenhas (1989), and Lawless & Tegarden (1991). A key objective of the strategic group research is to explain variance in performance based on the membership of strategic groups. The evidence on the membership - performance relationship is mixed at best. The level of support varies across studies and many do not find significant support at all. Other reviews of the literature on strategic groups (Cool and Dierickx 1993; Thomas and Venkatraman 1988), also draw similar conclusions. For instance, Porter (1979), Frazier & Howell (1983), and Cool and Schendel (1987) found no performance differences among the strategic group. Other studies, for example, Dess and Davis (1984), found differences on some measures of performance and not on others. Still others, (for instance, Oster (1982)), found significant differences in performance between high and low advertising strategic groups.

More recent efforts have attempted to examine the reasons for the mixed results. Lawless and Tegarden (1991) tested the hypothesis that an incomplete treatment/control of industry forces is the reason for the mixed support. By subdividing their sample into a conforming group (high concentration, high entry barriers and low differentiation), and into

a group where conditions favour non-conformity (low concentration, low entry barriers and high differentiation) they found that the strategic group concept is more useful for explaining performance differences in the group where industry conditions favour conformity as opposed to situations where industry conditions favour non-conformity. In brief, they find support for their hypothesis that the mixed results in prior research is due to an incomplete control of important industry forces

Incontrast to the assumptions of structural IO inspired strategic group research which. (a) examined homogeneity across industries, and (b) used the industry as unit of analysis (e.g. Porter 1979), more recent strategic management inspired efforts have: (i) admitted the presence of heterogeneity within strategic groups, (ii) have focused within specific industries, and (iii) focused on the firm as a unit of analysis. For example, Cool and Schendel (1987) concentrated on the pharmaceutical industry while examining the temporal/longitudinal stability and performance difference among strategic groups. Thomas and Venkatraman (1988) point out that "... rejection of performance difference (across groups) implies attention should be focussed on "within-group" differences in performance and on differentiated sets of skills and assets of different players" (p.548). Heeding not only the call of Thomas and Venkatraman (1988), but also the reasoning of the resource based theorists, Lawless and Tegarden (1991), propose that, since capability differences confound the membership-performance relationship, adding firm capabilities to the model may explain persistent intra-group performance variation found in empirical strategic group studies. The relationship is modelled as follows :

$$\text{Performance} = f(\text{Industry structure, group membership, firm capabilities})$$

Their results suggest that the strategic group membership-performance relationship may be moderated by firm characteristics associated with the ability to implement strategies. They also found that measure of strategic capability and performance were significantly different and correlated among firms in two strategic groups defined on strategy dimensions. Based on their work one may conclude that revisions to the conceptual model to include specifications of individual firm characteristics therefore appear to be on the right track and that even where firms conform on some aspects of conduct, their capabilities constrain pursuit of their strategies, and influence the success of their strategic choices.

### **3.2 Criticisms**

*Inconclusive empirical evidence.* The key objective in strategic group research is to explain variance in performance. A primary proposition in strategic group research is that since there are certain shared characteristics among group member, they must achieve similar levels of performance, and across groups they would be dissimilar on both strategy characteristics and performance. In brief, strategic group membership is used to explain variance in performance. However, empirical evidence does not support these views.

In a search for explanations for the weak results, Cool and Schendel (1987) suggest that prior research has had two different orientations, one IO based with a social welfare or efficiency focus, and the other strategy based and oriented towards management decision making. These two different orientations with differing objectives, have led to the examination of different types of grouping or subsets of firms in a given industry, creating a confused picture on the significance and value of the strategic group.

concept, whether it be used for resolving public policy issues, or for advice to management

Another possible limitation in the strategic group research, which could have caused the mixed results is an inappropriate control for critical variables. Lawless and Tegarden (1991) point out the absence of control for important industry factors that could explain variance in performance. Further the need to control for capability differences among firms. In brief, multiple and conflicting objectives and improper control for critical variables are presented as the major reasons for the mixed results.

*Number of strategic groups.* A major criticism of this research stream has been the lack of strong theory explaining the presence of strategic groups. For a given set of firms the choice of dimensions determine the number of strategic groups as well as the number of firms in a strategic group. For example, Nayyar (1989) points out that if the three sources of asymmetry (dimensions) between the firms: extent of vertical integration, degree of product diversification and differences in product differentiation, were dichotomized as 'High & Low', there should be potential for eight (2x2x2) strategic groups rather than four. The question of why there are only four strategic groups rather than eight has not been answered. In brief, the literature on strategic groups does not theoretically predict how many groups with what combinations of dimensions will exist in any given industry (Nayyar 1989).

*Tautological.* As pointed out by Nayyar (1989), and studies by Porter (1979), use measures of performance or firm output (firm size) as dimensions to identify strategic groups. But, given that the objective of strategic group research is to explain differences

in performance, using a measure of performance as a group defining/determining variable is tautological

*Haphazard choice of dimensions* Empirical studies of strategic groups use a variety of multivariate techniques, such as factor analysis, cluster analysis and regression, to identify the strategic groups and its members. However, their choice of dimensions lack such sophistication. Few, if any, studies emphasise detailed industry knowledge in choosing the dimensions for strategic groups (McGee & Thomas 1986). As dimensions change, a different number of strategic groups with different members appear. Hence, it is empirically derived. Any data set can be clustered to achieve within cluster homogeneity and across cluster heterogeneity. The notion of strategic groups, it appears, is no more than a statistical artifact

### **3.3 Conclusions**

The strategic group research was developed to alleviate some of the limitations and questionable assumptions of structural IO economics. Accepting the presence of heterogeneity within industry, the new IO economics researchers sought to identify finer homogeneous groups, within which the structure-conduct-performance paradigm would apply (i.e., identify a strategic group membership-performance relationship). However, empirical support is mixed. More recently, there has been a growing recognition that the assumption of homogeneity within groups is questionable. Akin to the resource-based view of the firm, the presence of capability differences (heterogeneity) among firms cannot be ruled out.

#### **4.0 The Business Policy School / The PIMS Paradigm**

The Profit Impact of Marketing Strategy (PIMS) paradigm is an offshoot of the cross fertilization of management practice, industrial organization economics, and strategic management and strategic marketing. The PIMS program initiated in 1972, originated as an internal project at General Electric (GE), where it was used for many years as a tool for corporate and business planning, is now housed at the Strategic Planning Institute, a non-profit business research organization. The PIMS database contains historical information on market structure conditions, competitive strategy, and financial results of nearly three thousand strategic business units (SBUs) drawn from more than four hundred and fifty corporations representing a broad spectrum of industrial environments, for periods ranging from two to twelve years (see : Buzzell and Gale 1987)

#### **4.1 The Goals of the PIMS Program**

The initial goals of the PIMS program was to identify "strategic principles" or "laws of the market place" with regard to (i) profit levels (ii) other impact of strategic actions, and (iii) impact of changes in the business environment (Ceccarelli & Clayton 1992; Buzzell and Gale 1987). The methodology adopted to achieve these purposes is to analyze the market conditions, competitive position and strategy, as well as financial results of SBUs that form a part of the program. Specifically, through the analysis of pooled business experience, the PIMS program attempts to answer questions such as

1. What profit ratio is "normal" for a given business, considering its particular market, competitive position, technology, cost structure, and so forth ?

- 2 If the business continues on its current track, what will its future operating results be ?
3. What strategic changes in the business have promise for improving these results ?
- 4 Given a specific, contemplated future strategy for the business, how will profitability or cash flow change, in the short term and long term ? (Ceccarelli & Clayton 1992).

Since, the PIMS paradigm focuses on the impact of market conditions, competitive strategy and position on SBU performance, there is a need to expand on these variables. Market conditions are akin to industry structure as examined in the traditional industrial organization literature and hence is not repeated here. Competitive strategy and competitive position are dealt in greater detail in this section.

#### **4.2 Competitive Strategy**

Strategy was introduced as a conceptual decision making aid and was defined by members of Harvard Business School as follows : "Strategy is the pattern of objectives, purposes, or goals, stated in such a way as to define what business the company is in or should be in and the kind of company it is or will be" (Learned, Christensen, Andrews, and Guth 1973). From this viewpoint, strategy is normative, a managerial art, and an intelligent task of integrating numerous decisions which are inherently complex, and specifically with respect to a firm's opportunities, risks, and resources.

A more descriptive approach was taken by Chandler (1962) to define strategy "Strategy is the determination of the basic, long term goals of an enterprise and the adoption of courses of action and the allocation of resources necessary to carry out these

goals" (Chandler 1962). This definition emphasizes ends (objectives and goals) as well as means (courses of action and allocation of resources)

Research in strategy has focused at two broad levels of analysis (Ansoff 1988, Vanail and Lorange 1975 , Hofer and Schandel 1978) namely (i) corporate strategy and (ii) business or competitive strategy Corporate strategy attempts to address the questions "what business should we be in" and "how should the business be integrated ?" (Wind and Mahajan 1981 ; Haspeslagh 1982) The primary focus of research in the domain has been in the area of diversification strategies and its implications for performance Since this is not the unit of analysis of this study, it is not expanded here Interested readers may examine survey articles on diversification by Ramanujam and Varadarajan (1989) and Hoskisson and Hitt (1990)

Business or competitive strategy attempts to address the question "how should we compete in the marketplace ?" According to Porter (1987), corporations do not compete, it is business units that do Competitive strategy attempts to address how a business unit should operate in its unique environment, dealing with specific customers and competition, and allocate resources to functional areas in order to position itself to achieve superior performance.

Consistent with Porter's (1987) viewpoint, the PIMS paradigm primarily focuses at the business unit level. A business unit is defined as an entity that .

- (a) has its own mission,
- (b) produces and markets a well defined set of related products and services,

- (c) serves a clearly defined set of customers, in a reasonably self contained geographic area, and
- (d) competes with a well defined set of competitors

Another relevant issue in the PIMS or business level strategy perspective is the definition of a served market. A served market is a relevant concept because businesses do not target their offerings at the total market, but at a relevant served market. Furthermore, market share, a key variable in the PIMS analysis, is measured based on the served market. The served market helps to specifically focus on the markets in which firms compete. For example, the luxury car produced by a firm does not really compete in the automobile market at large, but only in the market for luxury cars.

#### **4.3 The PIMS Competitive Strategy Paradigm**

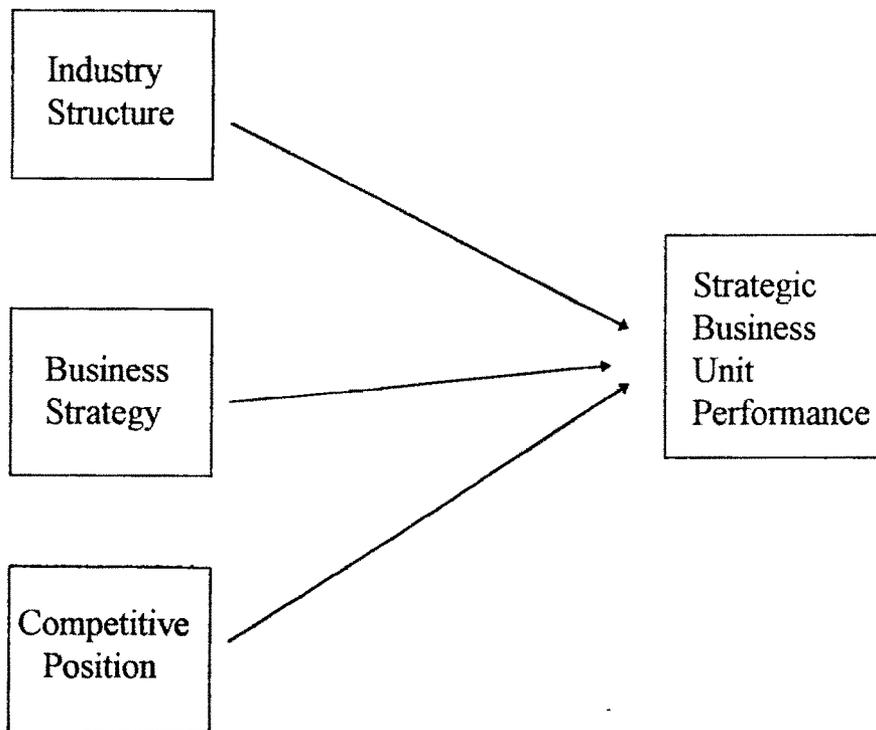
As pointed out earlier, the PIMS paradigm views SBU performance as a function of three sets of variables,:

1. The structure of the market in which an SBU operates
2. The competitive position of the SBU in that market
3. The competitive strategies pursued by the SBU

Figure 3.4 depicts the PIMS competitive strategy paradigm and includes the variables that belong to each set. The PIMS paradigm posits that market structure, competitive position and strategy will have main as well as interactive effects on SBU performance.

**Figure 3.4**

**The Profit Impact of Market Strategy (PIMS) Paradigm**



Given that the objective of the PIMS project is to relate market structure, competitive position and competitive strategy to performance, the paradigm has used a variety of variables to measure these constructs

Traditional Industrial Organization economics research for a variety of reason discussed early, focused at the industry level, while the business strategy literature of which the PIMS paradigm forms part focused at the firm/business unit level. Akin to industry concentration (often measured as the sum of the market shares of the four leading firms) at the industry level, market share is a key variable measured within the PIMS paradigm.

#### **4.4 Key Findings of the PIMS Paradigm**

In this section a few key factors that influence profitability are discussed in detail *Market share* PIMS provides three measures of competitive position, namely, absolute market share, market share rank and relative market share. The absolute market share measure can be measured both in units as well as monetary terms. The unit measure of market share is appropriate if the products and services are comparable. Monetary units are more appropriate when products and services are varied. Absolute market share in monetary terms are preferred when single industries are studied because both the sum and the bound constraints can be satisfied (Varadarajan and Dillon 1982).

Market share rank and relative market share are relative measures. Market share rank is used when managers are unclear about exact market share calculations and are more likely to be aware of their relative standing in the market. Although analytically simple to perceive and understand, a shortcoming of this measure is that a firm could be

ranked number one with 15% market share in a fragmented market, while another firm would have 50% share and also be ranked number one (Gale and Buzzell 1987).

An alternative measure is relative market share, which can be measured in two ways . (a) relative to the largest competitor or (b) relative to the three leading competitors. Of the two, the former is viewed to be better for calibrating competitive advantage (Buzzell and Gale 1987). It works well in oligopolistic markets, takes into account the sizes of other large competitors, and can be calculated even if total sales volume of the relevant served market is not known. Furthermore, relative market share is preferable when cross-sectional data is pooled across industries because (i) the sum and the bound constraint cannot be satisfied (Varadarjan and Dillon 1982), and (ii) the scale and bargaining effect of a business's relative size in its served market can be better captured (Buzzell and Gale 1987).

The empirical findings based on analysis of the PIMS data suggests that market share is the most important predictor of business unit performance. The rationale is provided by four theories.

1. *Scale economies* The most obvious rationale for the positive relationship between market share and performance is the likely scale economies related to share. A firm with 50% share is twice as large as one with 25% share in the same market and is likely to achieve greater economies of scale in procurement, manufacturing, marketing, R&D and other cost components. The effects of scale economies provides the primary direct causal mechanism that links share to profitability (Gale and Buzzell 1987).

2 *Market power theory* Some researchers argue that since economies of scale dissipate at small volumes, it is really "market power", that helps firms to (a) administer prices (Bain 1968), (b) bargain for lower costs from suppliers, and (c) extract concessions from channel members (Martin 1988, Schroeter 1988)

3 *Product quality assessment theory.* Risk aversion of customers also provides a rationale for the positive market share - profitability relationship Risk averse customers may be inclined to patronize the product/service offerings of the market leader, rather than take a chance by buying the offerings of a less well established competitor In other words, a product's widespread acceptance may be viewed as an indicator of quality (Smallwood and Conlisk 1979) Assurance that the firm would continue to provide the product/service may be another consideration (Gale and Buzzell 1987)

4 *Efficiency theory* As discussed in earlier sections, firms that have superior management quality or more innovative products will outperform their competitors (Demsetz 1973) Market share serves as a proxy for these variables and captures the variance due to these factors as an explainer of performance

Studies providing empirical support for the four theories reviewed were. for PIMS data base - Schoeffler, Buzzell & Heany (1974); Buzzell, Gale & Sultan (1975), Caves, Gale & Porter (1977); Buzzell (1981), Phillips, Chang & Buzzell (1983), Jacobson & Aaker (1985), Prescott, Kohli & Venkatraman (1986), and Jacobson (1988, 1990), and for Non - PIMS data base - Gale (1972); Shepard (1972), and Ravenscraft (1983)

The empirical results from PIMS program strongly suggest a positive and significant impact of market share on performance A regression analysis of the entire

PIMS database with twenty one other independent variables suggests that a 1% increase in market share leads to a 0.34% increase in return on investment

5. *Product quality.* PIMS data based studies indicate that the relative quality of the products or services is the single most important factor affecting SBU performance in the long run (Buzzell & Gale 1987) It has been suggested that quality leads to (a) stronger customer loyalty, (b) more repeat purchases, (c) less vulnerability from price wars, (d) ability to command premium prices without lowering market share, and (e) lower marketing costs. The findings suggest that quality impacts on price and profit positively. Since a perceived measure of quality is used, there appears to be no relationship to cost.

6. *Other variables.* Other than market share and product service quality, newness of plant and equipment, labour productivity and vertical integration are among the competitive position and business strategy factors that impact on financial performance (return on investment). Fixed capital intensity, inventory investment, rate of new product introduction, and current levels of spending on marketing and R&D are among the factors negatively related to performance

Among the market structure variables, market growth rate, concentration and rate of inflation in selling prices are related positively to performance, while employee unionization is negatively related to performance.

#### **4.5 Criticisms**

A number of methodological and theoretical questions have been raised about the PIMS data based research. Questions pertinent to this study are discussed next

*Small share businesses achieve levels of performance similar to large share businesses.* A number of PIMS data based studies have identified the presence of relatively more profitable businesses with low market share (Woo and Cooper 1982, Woo 1984). Building on an early study of firms in Forbes annual survey which identified numerous successful low market share business (Hamermesh *et. al* 1978), Woo and Cooper (1982) using the PIMS database identified small share firms that enjoyed pre-tax rates of return on investment of 20% or more. These firms were found to be characterized by high product quality and low total costs Woo (1984) also identified market leaders that had poor rates of return. Based on these results, researchers made a case that the market share-profitability link is overstated

The proponents of the PIMS program (Buzzell and Gale 1987) argue that (i) market share is just one of the two dozen key profit influences in PIMS data base, and that (ii) low market share businesses that are well positioned in the market will achieve superior performance [Woo (1984), Woo and Cooper (1982), and Hamermesh *et al*, (1987) found successful low market share businesses were in markets characterized by low real market growth rate and infrequent product changes] and that (iii) only about 25% of the low market share firms achieved returns of investment of 20% or more. In contrast, seventy five percent of the businesses with market shares of 40% or more, had a return on investment of 20% or more. In other words, successful low market share businesses are less prevalent than successful high market share businesses

*The market share-profitability relationship is spurious* In a PIMS data based pathanalytic model attempting to relate performance [measured as return on investment

(ROI)] to relative market share (RMS) and sixteen other strategic variables (Prescott, Kohli and Venkataraman 1986), the authors argued that to the extent the RMS can be explained as a function of these sixteen variables, the relationship of RMS to ROI was spurious, and their results implied that 55% of the RMS-ROI correlation was spurious

Buzzell and Gale (1987) have criticized this study on methodological grounds

They point out :

1 *Flawed research design* The modeling suggests that RMS depends on the 16 strategic factors and not vice versa. For instance, RMS depends on business unit costs but not vice versa. This goes against the theoretical expectation which suggests that the scale benefits of market share helps lower cost and thereby increases the bottom line. On the other hand, while relative cost could conceivably lead to lower relative prices and thereby impact market share, it is not modelled as such.

2 *Use of accounting ratios.* The use of numerous accounting ratios such as marketing and R&D expenditures as independent variables in the model with ROI as the dependent variables creates virtually an arithmetic identity. This in turn reduces the explanatory power of key variables such as market share to virtually zero. In short, Buzzell and Gale (1987) refute the argument that the market share- profitability relationship is spurious

*The market share-profitability relationship is due to the presence of lucky managers.* Other critics of the market share-profitability relationship contend that the observed correlation, reflects the actions of lucky executives who have stumbled on strong competitive positions and high rates of return, whereas unlucky executives score poorly

on both counts. Mancke (1974) casts the argument in the form of a Gibrat (stochastic) type process. He considered an initial situation in which all firms start from identical positions and periodically reinvest their profits in uncertain business opportunities. The profitability distribution of investment payoffs is identical for each firm. Those firms who are lucky will realize large profits over many periods, and will subsequently have deeper pockets to reinvest and grow. Over a period of time, the luckiest firms will be the largest, as well as report the best returns. In other words, the observed positive correlation between market share and profit is due to a stochastic process and luck, not economies of scale.

Caves, Gale, and Porter (1977) attempted to test the Mancke hypothesis of stochasticity using the PIMS database. They reasoned that if size and profitability were the consequences of past chance events, then the positive market share - profitability relationship should be stronger in more uncertain and turbulent environments. Their empirical analysis of turbulent and uncertain environments found little support for the Mancke hypothesis.

*Third factors explanations for the market share - profitability relationship.* Based on earlier work, Jacobson and Aaker (1985), Jacobson (1988, 1990) and Boulding and Staelin (1990) have argued that market share reflects the variance due to "third factors". In business strategy or PIMS models, since these third factors are not modeled, an omitted variable bias occurs and the variance due to these factors biases the market share profit coefficient. This was equivalent to saying that market share is a derived variable and per se has no intrinsic value.

Buzzell and Gale (1987) identify the following reasons in support of market share and return on investment increasing concurrently

1. Expenditure in new products through R&D and capital improvement made in the previous periods have a lagged impact on market share. Thus in the current period, although share gains are seen, there are no increases in costs that impact negatively on profits (Buzzell and Wiersema 1981).
2. Mistakes made by or misfortunes of competitors could improve the share of another incumbent firm.
3. Some innovations do not require significant increases in expenditures, but still lead to increases in share and profits.

For all these reasons, increases in market share and increases in profit could be positively related.

Jacobson and Aaker (1985, p.14) use return on investment of the preceding time period as a proxy for "firm specific factors, such as customer loyalty, distribution systems, and advertising effectiveness," in a model which included market share. With the inclusion of lagged return on investment, the effect of market share on profitability drops dramatically (five times lower). Hence, they argued that "market share is not what it is cracked up to be" Jacobson and Aaker justify their use of the lagged ROI by citing similar treatment of dependent variables in Box-Jenkins forecasting models.

Jacobson (1988) addresses the same issue, i.e. controlling for firm specific unobservable factors, such as, management quality, by utilizing a panel data set up to estimate the effect of market share on profitability. As in the earlier work with Aaker

(Jacobson and Aaker 1985). Jacobson found the effect of market share to be minimal. The central argument in all these works is that there are unobservable "third factors" that drive both market share and profitability. Not controlling for these factors, biases the market share profitability coefficient. Jacobson (1988) reported that .

- 1 A reduced form representation of profitability produces estimated coefficients for market share that are not different from zero. Market share has no role in directly influencing ROI.
- 2 The substantial effects of market share on profitability in other PIMS studies is due to the inadequate control for the effect of unobservable factors
- 3 Analysis of strictly cross-sectional data seems incapable of controlling for important firm specific effects. The bias caused by not controlling for unobservable suggests that "it is imperative to control for unobservable effects in order to assess the influence of strategic factors on business performance" (Jacobson 1988, p 78).

Jacobson (1990) and Boulding and Staelin (1990) in other studies draw similar conclusions. Buzzell and Gale (1987), and Buzzell (1990) however argue that the use of lagged variable as proxy for unobservables, justified by forecasting models such as Box-Jenkins, is inappropriate in cross-sectional models. By using past period ROI are only modestly related to market share. Their model is nearly equivalent to one designed to predict changes in profitability over time.

Jacobson (1988) counters by stating that the Buzzell and Gale (1987) position is statistically untenable. Jacobson supports his case by using Granger and Newbold's (1974)

recommendation of a lagged dependent variable for controlling for omission of relevant variables.

#### **4.6 Conclusion**

The PIMS data based research has advanced knowledge of the determinants of performance substantially. The role of competitive strategy and competitive position variables in explaining variance in performance is unquestionable. Their findings that market share is a key determinant of profitability has a great deal of acceptance in business practice (Buzzell 1990). However, critiques have questioned market share's pre-eminent role as a determinant of business performance (Jacobson and Aaker 1985, Jacobson 1988, Boulding and Staelin 1990). Studies controlling (methodologically) for unobservable, have found the effect of market share on performance to be insignificant. While proponents of the PIMS paradigm do not question the need to model unobservable, they question the approach adopted by Jacobson and others. Jacobson (1990) acknowledges that there are other methods to control for unobservables; "...for example, one might obtain indicators of the underlying latent factors" (p.84). The goal of this study as outlined in a later chapter is to adopt this approach.

#### **5.0 The Austrian School of Economics**

The Austrian School of Economics shares a great deal of commonality in philosophy with the efficiency and the newly emerging resource based schools of thought. The Austrian school had its origins in the writings of Carl Manager, Frederich Von Weiser

and Eugen Von Bohm-Bawerk, all late nineteenth century economists. Subsequent adherents include Joseph Schumpeter ( a student of Von Weiser and Bohm-Bawerk), Eudwing Von Miser and Friedrich A Hayek, More recently, Israel Kirzner and Dominick T. Armentano have made contributions to the growing Austrian viewpoint of economics. In marketing, Alderson, Jacobson and Dickson have been influenced by the Austrian school in their works.

Although a nascent field, in as far as strategy is concerned, the Austrian school has certain interesting aspects that have a great deal of relevance to performance models. Austrian economics represents an important alternative to traditional industrial organization economics.

Traditional industrial organization economics view the strategic objective as restricting competition. Porter's (1980 p.4) strategic objective for a business unit, to position itself where it can best defend itself against competitive forces, or alternatively to collude behind strategically erected entry barriers is poles apart from Austrian economics. To Austrian economists, competition is best understood as a dynamic discovery process in which entrepreneurs compete to identify profit opportunities. In order to exploit these existing profit opportunities, entrepreneurs utilize a variety of strategies, such as, product differentiation, advertising, price cutting, realize scale economies, incur marketing and R&D expenditures etc., which are perceived by traditional industrial organization economists as anti-competitive (Kirzner 1973) In brief, profits are not due to monopoly power, but rather due to discovery and innovation of entrepreneurs.

While the Austrian economists view the market condition to be dynamic and in a state of disequilibrium, strategy researchers inspired by the IO school tend to view the market in static terms. According to the Austrian viewpoint, since the market is in a constant state of flux, some firms are able to exploit market imperfections to realize above normal returns for their resources. Unless these firms are able to keep information about market imperfections private these will be copied by competition and the above normal returns lost. Hence, a search for empirical regularities through econometric modeling (as is done in traditional strategic management) is not useful.

The key focus of Austrian economics is the emphasis on unobservable/ intangible factors as determinants of business performance. They view the lack of emphasis on intangible / unobservable factors as neglecting available information, which could have an impact on performance. A variety of factors in the category of intangible factors, such as, accumulated consumer information, brand name, reputation, and management skills are examples of factors which could influence business performance. Furthermore, these could influence strategies adopted by firms (Jacobson 1990). Jacobson's (1988, 1990) empirical research has been largely inspired by the Austrian School of economics. In a variety of empirical efforts, he has emphasized the importance of controlling for unobservable in profitability models. PIMS researchers on the other hand have focuses on tangible factors, arguing that modeling the linkages among observed strategic factors provides reasonable approximations of business performance. Illustrative of Jacobson's work is the recent effort to control for unobservable factors in a serial correlation model with return on

investment as the dependent variable (Jacobson 1990) In this study, Jacobson finds that not controlling for unobservables has severe consequences

- 1 Since unobservables are correlated to both the dependent and the independent variables, the estimates of the independent variables are biased
- 2 In some cases they even reverse the sign of the estimated coefficients For example, when unobservables are not controlled for, marketing expenditures have an adverse impact on return on investment. However, when they are controlled for, the sign on the marketing expenditure coefficient is reversed
- 3 The explanatory power of the par ROI model which does not control for unobservables (70% according to Buzzell and Gale, 1987) is highly overstated  
Jacobson (1990) concludes from this and his other efforts [Jacobson and Aaker 1985, Jacobson 1988 (where unobservables have been controlled for)] that

1. The influence of unobservable factors is so pervasive as to invalidate many of the conclusions drawn from studies not controlling for unobservables
2. Even though tangible strategic factors may influence business performance, it is unobservables that for most part determine business performance.
- 3 Unobservables not only influence performance directly, but they also influence strategic choices and thereby indirectly influence performance

The Austrian school of economics serves as an interesting and useful theoretical addition to strategy literature. Its focus on observables is particularly important to modelling of performance. Not unlike the efficiency school economists, they believe that the direction of causality implied in the SCP paradigm is wrong Like the efficiency school

the Austrian school economists argue that more efficient firms win approval from customers, and achieve market share gains. This increases concentration and is hardly a cause for alarm.

Perhaps, key to this study is the emphasis on unobservable factors in the Austrian economics, in contrast to the focus on tangible factors in strategy research. This point is stressed further in the examination of the resource based view of the firm.

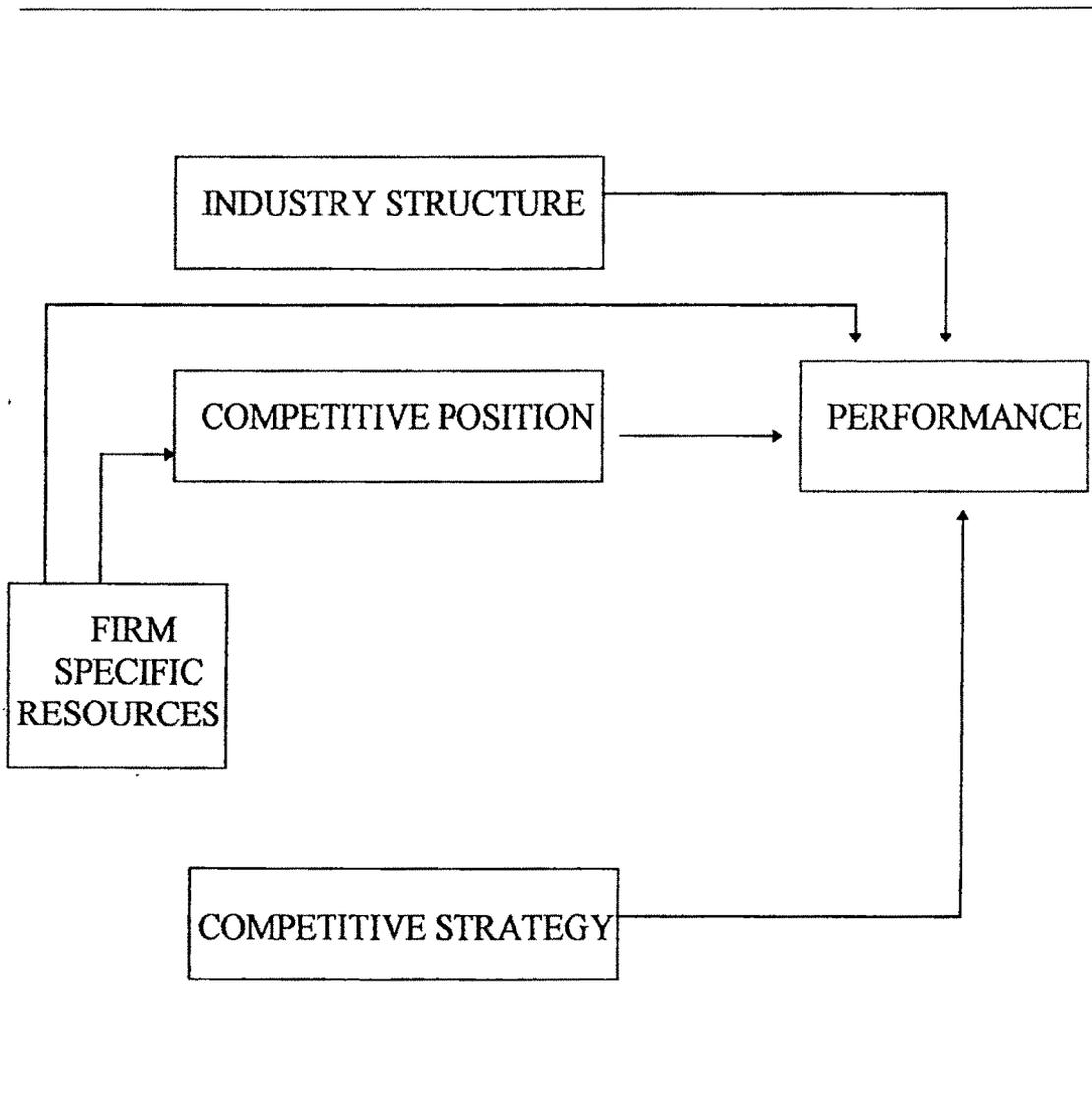
## **6.0 The Resource Based View of Firm**

A plateau was reached where strategic and marketing researchers alike felt a more complete explanation for the variance in performance was required. While the exclusive focus on product-market positioning, facilitated by quantifying phenomena related variables, was not refuted the argument to examine resources which lay behind the product-market position achievements gained credence (eg. Caves 1984, Rumelt 1984, Teece 1984, Wernerfelt 1994, Dierickx & Cool 1989). The external analysis focus was interpreted as a uni-dimensional perspective. This led to a shift in research. It was felt the roots of competitive advantage must lie within the firm, viz the internal environment. Fig 3.5 presents the resource based paradigm.

Alternatively called the resource based view of the firm, the earliest references can be found in Penrose's (1963) theory of the firm. The concept got popularised as distinctive competencies. Ansoff (1988) considered distinctive competencies as an inherent component of corporate strategy and consequently pointed out its importance in

Figure 3.5

The Resource Based Paradigm



the context of responding to environmental signals. It has been subsequently defined by Hofer & Schendel (1978) as the unique competitive position that a firm achieves through resource development. Empirical researches yielded functional areas of the firm that represented areas of competencies. Later, Hitt & Ireland (1985) listed fifty five distinctive competence activities within functional areas. Empirical works however, in establishing distinctive competencies as an explanator variable have been limited.

Penrose (1963) proposed that resources possessed by a firm give it, its unique character. These resources yield certain distinctive competencies, which are not homogenous to all competing firms, and these competencies are the source of a firm's superior performance. She further pointed out that a firm's choice of markets and the magnitude of profit it could earn, were in turn limited by the resources it possessed. Also called the 'Penrose effect', she claimed that long-term growth prospects were constrained by the appropriate deployment of internal resources. This view led to a number of research forays in the area of firm diversification. The implied theory being that the extent of available unused resources, productive capacity, and groomed competencies dictate the extent and nature of diversification (Chatterjee & Wernerfelt 1991).

The evidences that a mere external analysis provided half the explanation in the understanding of variance in firm performance, resulted in an appreciation of the role played by internal firm specific factors. The aim of the resource based model of competitive advantage is to be a model that facilitates the rigorous analysis of internal organisational strengths and weaknesses and ties this internal analysis with an external analysis. At the heart of the resource based perspective lies the costly-to-copy attributes

of the firm, as the well-springs of economic rents, and therefore, become the genesis of competitive advantage (Rumelt 1984) Recent developments of the resource-based view of the firm have contributed to consolidating the notion that competitive advantage is about what assets the firm has with which it competes as much as it is about how a firm competes. Hamel (1994) distinguishes between firm 'capabilities' and 'competencies' (intangible assets) possessed by the firm. He defines competencies as an integration of skills that contribute to customer perceived value, i.e., translate into a fundamental customer benefit, be competitively unique, and provide gateways to futuristic markets His proposition, largely representative of the resource based perspective and sustainable competitive advantage is that competition between firms is as much a race for competence mastery as it is for market position and market power

While the emphasis of Hamel & Prahalad (1994) is upon an agglomeration of esoteric skills (intangibles) or perhaps, a deposit of unparalleled knowledge, a firm resource may also be considered strategic if it is tangible or not possessed by others For example, pre-emption of search resources or possession of patents, can be sources of rich economic rent yielding positions. Thus, the whole argument rests on the assumption that such an asset should be imperfectly imitable. Lastly, the resource/asset should be non-substitutable. Similar to Porter's threat of substitutes (1980), the competing firm may substitute a similar resource or use very different resources Central to the concept of sustainable competitive advantage is the notion of non-imitability Similar to the concept of barriers to entry in firm motive, the barriers to imitation are endogenous and idiosyncratic Conceptualizations of barriers to imitation have been proposed by Rumelt

(1984) & Coyne (1985) Dierickx & Cool (1989) provide further insights on the functioning of the same

### **6.1 Criticisms**

The internal analysis - resource based or alternatively, competence based - view despite it's many virtues is not without it's handicaps Eccles & Noheria (1993), point out that a competence based focus could be criticized for paying attention to the firm itself at the expense of external competitors and product markets The obsession with an internal focus may lead to an attempt to preserve competencies relevant for markets that only exist in their imaginations. Finally, they mention that investments might be made to maintain competencies far beyond any return that can be earned on them In fact it can also be the case that investments in an identified competence might end up supporting an unprofitable business

While the merits of erecting barriers to imitation are appreciable competencies can never be sources of eternal long term competitive advantage. Sooner or later eventually, all competitive advantage will be eroded and reduced to 'competitive prerequisites' or 'competitive conditions'. As rivals cancel out one another's advantages, strategies converge and competition assumes mutually destructive proportions (Porter, 1996) The answers will also be elusive in a 'static' setup. Like competition itself, competitive advantage is 'dynamic', a continuously moving target.

### **6.2 Conclusion**

The resource-based view of the firm, consistent with the Austrian school of economics, provides theoretical support for the role of firm-specific intangibles (resources

and skills) as an explainer of variance in business unit/firm performance. A few valid criticisms notwithstanding, this perspective further establishes the case for intangible/unobservable factors representative of the internal dimension, the ignorance of which would lead to biased estimates of the determinants of performance incorporated in the strategy models.

## **7.0 Summary**

Six different perspectives/schools of thought that have attempted to explain differential performance among firms was presented in this chapter. While overlapping to some extent, each of these had some unique aspect to offer. However, it is reasonable to observe that all six do not provide a holistic satisfactory explanation for differential firm performance. In the next chapter a step is taken towards building an integral model of business unit performance. The view taken of firms is one where it is analysed as an entity, the 'behaviour' of which is what competition consists of. The propositions of the Austrian school and the Resource based theory of the firm form the basis of the central theme of competitive dynamics for this study.