

Small Firms Competitive Strategy:
An Exploratory Study of a Sample of Brazilian Companies.

By

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AbstractSmall Firms Competitive Strategy:
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In this study an exploratory investigation of successful competitive strategies for small firms is undertaken. Two main hypotheses guide the work. Hypothesis I is concerned with whether the competitive strategy of successful small firms differs from that of less-successful small firms when these firms operate within the same competitive environment. Hypothesis II is concerned with whether the competitive strategy of the successful small firms differs across groups of competitive environment.

The analysis is performed over different competitive environment groups obtained by means of cluster analysis and entails the study and comparison of the small firms competitive strategy within and across these groups. This is carried out with data collected from small firms located in Brazil.

The competitive environment groups identified in this study vary from more unstable and less competitive to more stable, fragmented and competitive ones. In all groups strong differences emerge between successful and less-successful small firms competitive strategy emphasis. The differences are more striking in the less stable and less competitive environment and less so in the more stable and competitive ones. The major conclusions of this study are that a) Successful small firms develop competitive strategies whose emphasis are consistent with the prominent competitive environment characteristics and this distinguishes them from less-successful companies; b) generalisations regarding successful small firms competitive strategy should be interpreted with caution; and c) certain strategic dimensions appear to be more relevant in certain competitive environments than others.

To
Jose and Lea,
my parents.

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CHAPTER I

INTRODUCTION: THE RESEARCH PROBLEM AND ITS IMPORTANCE

1.1. Introduction

Up until recently governments and planners over the world have emphasised the need to promote large-scale investments in order to take advantages of economies of scale and promote fast economic growth. This strategy was discharged much to the neglect of the small firms which would be seen by many as an indication of economic backwardness and whose contributions were regarded as negligible. Today, with the failure of this strategy to induce significant improvement in economic performance, as has been argued (Allard, 1983), small firms are the focus of attention.

The fundamental key to economic development in a capitalist society is free enterprising and increasing concentration of capital and production factors leads to overpowerful monopolies which can disrupt and weaken the basis of free enterprising.

On the other hand, small firms are fundamental to the maintenance of a stable market economy. They can provide an important element of competition which leads to greater efficiency and innovation, thus playing an important role in the longer-term competitive process (Dutra and Guagliardi, 1984; Allard, 1983). Further, it has been argued that only those countries whose small enterprise sector is not simply in survival conditions but is a striving and flourishing sector of the economy, can aspire to development (Wipplinger, 1980).

In Brazil, the small firms sector plays a considerably important role in the socio-economic development of the country. As will be discussed in chapter II of this thesis,

despite the intense process of capital concentration and centralisation and the formation of conglomerates and oligopolies in the major industrial sectors, the small and medium-sized enterprises comprise the great majority of the Brazilian manufacturing, and services companies. They contribute with a very significant share of total gross product, employment, salaries and wages and even of taxes (Rattner, 1984a; Dutra et al., 1986). They are found everywhere in the country, that is, they are not concentrated in one particular region, and this contributes to the distribution of the economic activity and wealth throughout the country. They can help to mitigate rural migration toward large centres and in the urban areas they can employ those who cannot be employed by the modern manufacturing sector, against the expectations of governmental plans (Rattner, 1984a; Dutra and Guagliardi, 1984).

However, as happens everywhere, whilst a very few of today's small firms may indeed grow and flourish, far more do not survive for more than a few years. Closer analysis shows that the Brazilian SME sector is characterised by a very high rate of turnover of enterprises: a high percentage of firms die during their first years of existence and new businesses are formed continuously (Senai, 1980; Rattner, 1984a). It is argued that out of 10 small and medium firms five fail to survive during their first five years of existence and up to nine cease trading within ten years of start-up (Rattner, 1984b). This situation, however, is not peculiar to Brazil. In the USA out of every ten businesses that start each year, seven survive the first year, five survive the third year, and only two survive after the fifth year (Franklin & Franklin, 1982). In England, using the VAT registrations as a proxy for birth and death of companies, it was found that of those who entered the register during the years of 1974-77, only about 50 percent remained on the register for more than five years (Allard, 1983) and in Northern England evidences indicate that more than 30 percent of new manufacturing businesses cease trading within 4 years of start-up (Storey, 1983).

Many economists have theorised on the aspects related to small firms survival and also to their decline. Thus, Marshal, foreseeing the decline of the sector, proposed the "law of survival of the fittest" based on the Darwinian principles of evolution. To account for the small firms that survived, the Marshallian theorists proposed the principle of "temporary existence". Others argue that the small firms survive only in a dependency situation, that is, they would be dependent on, and subordinated to, the large capital, or in a situation of "complement" to the larger firms' market objectives in which case the small firms would attend markets which are not yet within the interest of larger firms for any reason. Others still argue that the survival of the small firms are related to the economic cycles of expansion and recession (Rattner, 1984a).

While these theories can explain the phenomenon of small business survival from a macro point of view, they may be insufficient to explain the problem from a micro point of view, that is, from the perspective of an enterprise. Which are the conditions of successful survival of small firms. What would guarantee success in each of the situations referred to by the economists? Certainly, independent of their dependence or subordination condition, some small firms flourish while others perish.

From another point of view, for a given business, success might be expected to be dependent both on the product, market and industry characteristics that determine its competitive environment and on its business/competitive strategy (Woo and Cooper, 1982). For the small firms Hosmer suggests that success is dependent on many aspects, including: the owner/managers' personal characteristics, the strengths and weaknesses of the enterprise, the business environment and the company's management and product/market strategies, that is, the way a firm actually competes within its environment.

In reality, competition, or rather, how to cope with it,

seems to be among the greatest difficulties faced by small firms. In Brazil, experience has shown that problems directly related to marketing activities are some of the primary reasons why companies fail to survive. Among these problems, difficulty in facing competition is believed to be the greatest one. Figueiredo (1979), carrying out a follow up study on a group of small firms which had been surveyed 13 years earlier (Richers et al. 1967) found that 43 percent of the companies (63 of them) had not survived the period. Interviewing a sample of 35 (out of the 43% above) owner-managers it was elicited that 47 percent of them had not survived due to marketing problems, 39 percent of which were labelled inability to face and overcome competition. Moreover, such a difficulty seems to be present during the entire life of the surviving small firms, as is indicated by the results of the enquiries above mentioned (Richers et al. 1967; Figueiredo, 1979). Such an experience has elicited that more than 50 percent of the surviving companies faced serious problems in competing especially with the larger firms. Moreover, 60 percent of the surviving companies believed themselves to be facing a too "strong" competition from all firms (Figueiredo, 1979).

Richers, Figueiredo and Hamburger (1967), working with 167 small firms of some Brazilian state capitals (Porto Alegre, Salvador, Sao Paulo) concluded that these firms considered among their most pressing problems many marketing related aspects: distribution, pricing, quality, competition, market uncertainties, clients and representatives were all pressing areas.

Further evidence on the theme is given by the results of research work carried out in Brazil and elsewhere, such as, Ceag-SP (1979); Ceag-RJ (u/d); Dutra et al. (1986); Tinsley and Arnold (1978); Ford & Rowley (1979).

In the same vein, an investigation carried out between 1981 and 1983 in Brazil (Durand, 1985) found that in the textile sector the entrepreneurs who worked as fabrics producers (weaving) often changed their business objectives,

moving vertically onto the chain, becoming, in the end, retailers of ready-made clothes. Thus they would go from weaving to fabrics dying and improvement, to clothing and finally to clothes retailing. The reasons for this, according to the entrepreneurs themselves, were the fast introduction and expansion of the large firms in the sector, which, taking advantages of more modern, large-scale production technology, were making it difficult for the smaller firms to compete successfully with their often slower and older production technology.

The foregoing discussion pose the question on the marketing and competitive strategy of small firms. What kind of competitive behaviour does a successful small firm undertake? How can some successfully compete in certain markets (including oligopolised ones) while others cannot and fail? These questions become the guideline of the present research effort.

A review of the small firm marketing and strategy literature, which will be further considered in chapter III, has failed to satisfactorily answer the above made questions. In fact, it has uncovered a gap in the knowledge regarding both small firms marketing issues and competitive strategy. This limited literature, both in Brazil and elsewhere, in its great part is made up of descriptive, normative text books and "how-to" guides to marketing of all sorts, all of which of an advisory nature, drawn mostly from the authors' personal experience and casual observation. In contrast, empirical research and investigations on the actual aspects of marketing and competitive strategy of small firms are hard to be found.

In Brazil, very rarely does the literature contain a piece of work whose major objective is exclusively concerned with small firms marketing management. More common are works which emphasise some aspects of marketing within the general area of small firms management. Further, most of what is available is concerned with the SME sector as a whole and not with the small firms in particular (Dutra & Guagliardi, 1984).

In other countries, the overall picture is very much the same. Davis et al. (1985), have carried out a review of leading scholarly publications and concluded that the subject has been neglected by marketing academicians. They wrote : "a review of the Journal of Marketing from 1936 to 1983 failed to identify any titles directed wholly toward marketing and firm-size. A similar review of the Journal of Retailing since 1927 identified four small business/marketing articles, two published in 1952. Even the Journal of Small Business Management, a journal whose sole purpose is to publish small business articles, published only thirteen research oriented marketing articles between 1971 and 1983". Other evidence on the paucity of small firms marketing/strategy research is given by Tinsley & Arnold, 1978; Justis & Jackson, 1978; Jackson et al., 1979; Braaksma, 1983; Kinsey, 1983; and Stoner, 1987.

Within the small firms marketing sphere, one of the most neglected issue is that of competitive strategy. Little research has been done which directly addresses the actual competitive strategies successful small firms tend to adopt. Sexton and Van Auken (1982, 1985) have pointed out that very few empirical studies of small business operations deal directly with strategic behaviour. Certainly some authors, such as Cohn and Lindberg (1974), Brannen (1978) and others, offer a number of recommendations for strategies for successful small firms. However, it is necessary to go a step further and ask under which conditions and for what types of competitive environments different recommendations are likely to be effective. This has tended to be neglected and is a great paradox since, as Weitz (1985) puts it, "it is difficult to imagine a marketing decision which is not affected by competitive activity". Moreover, as Kinsey (1983) argues, "clearly, the maintenance of, and increase in employment in the small firms manufacturing sector in future years will depend critically upon how effectively their goods are marketed Today there is so much competition that producers must turn to marketing to attain any degree of success."

The relationship between competitive environment elements and competitive strategy has received some attention in the literature. Research has been carried out to investigate the best strategies for different industry/market growth stages (Hall, 1980; Hammermesh and Silk, 1979; Harrigan, 1980), for different phase of the product life cycle (Anderson and Zeithaml 1984), for different states of competition (Silva, 1988) among others. Much of this research, however, has been done for large firms and it is not clear how well these prescriptions apply to small businesses.

Although sometimes larger-firms based knowledge can be translated to the small firms arena, much of it will be insufficient to deal with the unique situation and distinct nature of the small companies (Dandridge, 1979). Cohn and Lindberg (1972) support this view and note:

"Managerial competence in small firms is often seriously diluted by uncritical adherence to the belief that the principles of management are applicable in companies of every size ... Business administration is primarily a description of the methods that have worked in large concerns and has been remarkably neglectful of the needs of small companies."
(Cohn and Lindberg, 1972:1).

These authors emphasise that businesses of varying sizes conduct their affairs differently and must do so if they are to survive. Certainly, these arguments make a strong case for the development of small firms marketing and strategy research. Many authors point to basic reasons that guarantee the differences in marketing and strategies between large and small firms. Some of these are:

a) Small firms resource constraints which lead to modest, if any, marketing budgets and distinguishing strategies (Davis et al., 1985; Brannen, 1978).

b) Small firms product/market objectives, usually related to small market share and limited, specialised product line, also leading to different strategies (Davis et al., 1985; Chaganti & Chaganti, 1983).

c) Small firms lack of specialised expertise. Frequently they are not managed by formally trained managers and that means their style of management is probably very different. Most certainly this hinders their ability to implement complex strategies (Brannen, 1978; Davis et al., 1985; Chaganti & Chaganti, 1983).

d) "Small firms dependence on, and lack of hold over its environment, leaves small scale entrepreneurs little scope for pursuing a strategy of their own." They are probably more reactive than pro-active taking advantages of the circumstances. (Braaksma, 1983).

e) "A weakening of the small firm's market", often limited and specific, "is more likely to result in its liquidation, whereas in similar circumstances a larger business is more often able to survive with a reduction in the personnel." This means the small firm success is considerably dependent on its strategic behaviour (Braaksma, 1983).

Concluding, the paucity of research on small firms marketing and competitive strategy is by itself unfortunate because it hampers theory development in the marketing area (Davis et al. 1985). And given the great number of small firms in any economy one could say that the competitive behaviour of the great majority of the enterprises is far from being understood. Moreover, if it is true that governments all over the capitalist world are committed to promoting and assisting small firms, they are trying to do so without completely understanding a key aspect of the management process within those firms.

1.2. A Contingency View of the Study of Small Firms Competitive Strategy

To study the competitive strategy of small firms some important points must be taken into consideration. The first point is derived from the small businesses characteristics. These firms are extremely heterogeneous and their functioning very much dependent on their environment, on one hand, and on their less-formalised nature, on the other hand. Because of these factors, "it is virtually impossible to generalise on the functioning of small enterprises. Every attempt to do so comes up against a multitude of exceptions" (Braaksma, 1983).

Second, it has been argued by economists that, in order to understand the process of survival and expansion of small firms, it is fundamental that these companies are looked at within the market structures in which they compete, since their survival and expansion are dependent on their relationship with other companies within these structures and since the nature of this relationship is likely to be different in distinct market structures (Rattner, 1984a, Gontijo, 1980).

Third, marketing decision making and the selection of strategies are contingent activities whose adequacy and effectiveness depend on a number of factors not only those internal to the company, but also those pertaining to the company's competitive environment (Weitz, 1985; Davis et al., 1985). As argued by Porter (1980),

"...the essence of formulating competitive strategy is relating a company to its environment" because "the key aspect of the firm's environment is the industry or industries in which it competes" and "industry structure has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm". (Porter, 1980: 3).

The fourth and last point to be noted regard the need to consider the level of success of those companies. In other

words, there is the need to investigate the differences between both successful and less successful companies from the perspective of their strategic behaviour. This argument is primarily based on the Industrial Organisation Economics' paradigm which states that market structure determines companies behaviour and hence strategies, and both jointly determine performance. Also, that once companies have understood market structure, they, through their strategies, can potentially change structural factors in their favour. In any case, there is strong relationship between industry structure and strategies and the higher the consistency between them the better the performance of the companies [For completeness of the argument, it is important to mention that some authors argue that past performance too affects the strategic options available to the firms]. (Porter, 1981: 615-16).

The need to consider strategies of both successful and unsuccessful companies seems also to be evident in the following quotation regarding the theories-in-use approach:

"A theory-in-use approach should also include unsuccessful practices. If, for example, we consistently found the same principle(s) to be used by unsuccessful practitioners we might conclude that the underlying proposition or theory has been falsified and we can rule it out as a possible explanation of the phenomena we are concerned with. Additionally, if the same principle appears to be used in the same way by both successful and unsuccessful practitioners, we can conclude there are very likely to be important concepts and propositions missing from our theory which, if present, would explain why the principle may be true in both cases but not be associated with the same result" (Zaltman et al., 1982: 119).

The conclusion which follow from the above argumentation is that to fully understand the competitive strategies of small firms it is necessary to take into account, on one side, the characteristics of the competitive environment, and, on the other side, the performance of the small firms since the strategic behaviour of the firms is likely to differ in distinct competitive environment. That is to say that, by

allowing for contingencies in the study of small firms strategies the pattern which emerge is likely to be more realistic. The relationship among competitive environment, competitive strategy and performance is further addressed in chapter IV.

1.3. Research Objective and Aims

With the above arguments in mind, the present research effort is designed to study the competitive strategy of small firms with the ultimate aim of contributing to our knowledge regarding the marketing/small firms interface in a Developing Country - Brazil. On the grounds that there are variations in the competitive behaviour of small firms according to the type of their competitive environment, the study aims at investigating small firms competitive strategies which have proven to be effective against a background of factors which characterise the nature of the competitive environment of small firms. By doing so, it is believed that an important dimension will be added to the existing knowledge of small firms. This may be able to contribute both to the formulation and execution of public policy efforts towards the assistance of small firms and to the formulation of small firms training programmes and consultancy schemes.

1.4. Research Strategy

The research is based on field work carried out in Brazil between August and November of 1986. Data on company's competitive environment, competitive strategy and performance were collected by means of interviews with owner-managers of 33 small manufacturing firms and also by means of a structured questionnaire completed by other 125 companies. These companies, located in two Brazilian regions namely Zona da Mata and the State of Parana, were selected from the data base of

Banco do Brasil, the Brazilian Bank whose role in the Governmental effort to support the small business sector is primary and fundamental.

Subgroups of competitive environments are identified by means of cluster analysis. Cluster analysis consists of a technique designed to identify like objects and classify them into groups. In this research, the small firms are assigned to clusters based on their competitive environment characteristics so that a particular cluster comprises small firms whose competitive environment profiles are similar. Further, within each group of competitive environment or cluster the small firms are classified as successful or less-successful companies and their competitive strategies, measured along a number of dimensions, are compared one another. Finally, a comparison of the competitive strategy of the successful small firms across groups of competitive environment is carried out.

The analyses reveal that the competitive strategy of the successful small firms differs substantially from that of the less-successful firms in each group or cluster. Further, the successful firms are distinguished from the less-successful firms by their highly consistent strategies whose competitive emphasis are very consistent with the competitive environment predominant characteristics.

1.5. Outline of the Thesis

The structure of the thesis follows the outline in the Table of Contents. Chapter II examines briefly the background context of the thesis, that is, the Brazilian small and medium-sized enterprise sector. It comprises such issues as the formation of the sector, the criteria to classify businesses according to size, the role of the sector in the country's economy and the governmental and institutional assistance effort.

Chapter III reviews in detail the literature on small

business marketing and competitive strategy. The review leads to two major conclusions. Firstly that current research is limited and offers conflicting views on the actual competitive behaviour of small firms. Secondly, since the relationship among competitive environment, competitive strategy and performance has been much neglected by current research, these conflicting views might be an indication that in reality there are conditions which mitigate against the favourable effect of recommended success factors on performance. The chapter concludes by summarising the most important success factors as predicted by the theory and confirmed, or not-confirmed by empirical investigations.

In order to develop the conceptual framework of the thesis, chapter IV examines in detail the theoretical foundation of the relationship between competitive environment, competitive strategy and performance drawing from considerations based on four major research streams: organisational behaviour theories, industrial organisation, strategic management and marketing. The conceptualisation of the competitive environment draws heavily from Porter's (1980) five competitive forces framework. This has been seen as the most comprehensive way of approaching a company's competitive environment and the chapter considers its applicability to the small firm sphere. Then, competitive strategy and their dimensions are defined. The chapter concludes by formulating the hypotheses of this study.

Chapter V addresses the research methodology. Within this it discusses the issues of operationalisation of the major concepts and examines the issues and arguments behind the choices of research sites and strategy adopted for the field work. In-depth interviews were held over three months with 33 small firms in Zona da Mata, Brazil, of which 28 were usable. Then, based on the feedback from the interviews, a highly-structured questionnaire was designed and mailed to other 330 enterprises located in Parana, a Brazilian State. Of these 125 companies replied. In the event, the chapter also addresses the topic of methodology of data analysis and the

choice of the statistic technique of cluster analysis.

Data analysis and findings are presented and discussed in Chapters VI and VII. Chapter VI addresses the survey data, the substance of the thesis, and chapter VII addresses the interviews. Data are analysed by means of cluster analysis and other techniques as contained in the computer-based Statistical Package for Social Science, in its version X (NIE, 1983).

Finally, chapter VIII concludes the thesis. The major conclusions are, firstly, successful small firms develop competitive strategies whose emphasis are consistent with prominent competitive environment characteristics and this distinguishes them from less-successful small firms. Secondly, recommendations regarding successful small firms competitive strategy should be interpreted with caution. Lastly, certain strategic dimensions appear to be more relevant in certain environments than others. The remainder of the chapter appraises the work and addresses the issues of major limitations of the study and implications for theory and future studies and research.

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CHAPTER II

BACKGROUND CONTEXT OF THE THESIS

SMALL FIRMS IN BRAZIL

2.1. The SME Sector's Characteristics and Statistics

Historically the Brazilian small and medium-scale enterprises (SMEs) have existed ever since the beginning of the industrialisation process, but it is from the 1950s that their present position and role in the Brazilian industry structure start to take shape.

During the 1950s the federal government embarked on a series of measures aimed at consolidating the up-to-then incipient durable consumer goods manufacturing industry. By means of all sort of incentives and benefits, foreign, large corporations were attracted. The development of the durable consumer goods manufacturing industry, in turn, stimulated the production of capital goods and industrial inputs, thus diversifying considerably the Brazilian manufacturing sector (Senai, 1980).

The industrial development led to the development of both the trade and the service sectors, and was characterised by a process of capital concentration, firm size increase and production activity diversification. The capital concentration was accompanied by, on one hand, a progressive decline of the SMEs whose products competed directly with those produced by large companies, and, on the other hand, by the proliferation of SMEs as subsidiaries or satellites to the large companies in virtually all industry sectors. These are SMEs which would emerge to give support to the large scale sector, vertically integrated to it as suppliers of the necessary intermediary materials and SMEs which complemented the activities of the

large enterprises by attending markets unoccupied by the large companies (Senai, 1980; Tsukamoto and Koike, 1986; Rattner, 1985; Thorstensen, 1985).

In other words, the industrialisation and economic development model adopted during the 1950's and following decades - particularly during the 1968/73 period, the "Brazilian miracle years" characterised by considerable economic growth and expansion - determined the present national industry structure both in terms of the relative participation of small, medium-scale and large firms in the country economy and in terms of the way the SMEs relate to the larger ones - a dependency relationship according to many (Tsukamoto and Koike, 1986; Senai 1980; Rattner, 1985). That is, the smaller firms would depend on larger ones for guaranteed markets, technology development and financing (Gontijo, 1980).

The present Brazilian SME sector has then been characterised as resulting from the capitalism development process itself, where the smaller companies emerge and disappear continuously. That is, it is a sector characterised by a high rate of turnover of businesses in a constant movement of birth and death of businesses. In this way the SMEs sector has withstood the capitalism evolution into the present concentrated oligopolistic industrial structures (Senai, 1980).

To study the small and medium-scale enterprise sector in Brazil it is necessary to comment on the diverse criteria used to define these businesses. As in other countries, this is not an easy task since the related literature brings in a plethora of criteria to measure the dimensions of a business or production unit.

Those criteria often change according to many aspects, for instance, the ultimate objective of whoever is trying to define the small and medium-scale businesses, the institutions or agency coordinating supporting programmes, policies objectives and available means of implementing those policies and according to business sector (Senai, 1980).

The criteria may be grouped under the headings of quantitative, qualitative and mixed criteria. The quantitative criteria tend to be the most commonly used, given that they are always easier to be worked with. On the other hand, most of these criteria, which are of an accounting nature, cannot be trusted substantially for two reasons: The smaller entrepreneurs tend to underestimate their accounts in order to pay less taxes and the permanent inflation rates erode the monetary significance of those criteria (Dutra & Guagliardi, 1984; Rattner, 1985).

The qualitative criteria are merely descriptive statements on SME characteristics, referring basically to their administrative and organisational structure and managerial style. While these criteria, if considered together, can identify a SME in the universe of firm sizes, they are not easy to be operationalised and, hence, not frequently used. To minimize this, they are often used together with some quantitative criteria - the mixed criteria (Dutra and Guagliardi, 1984; Rattner, 1985).

For instance, financial institutions and agencies frequently make use of various quantitative indicators to classify firms into size groups. These are investment indexes, turnover, gross sales and income values, fixed assets, production value, net asset value, etc. Other institutions prefer more qualitative criteria such as management style, lack of organisational complexity, lack of specialised management, etc (Senai, 1980). Low ratio of employed labour per capital unit, lack of, or minor dependency on external sources of technology are also criteria used to define a small and medium-scale firm in Brazil (Senai, 1980; Dutra et. al., 1984; Rodrigues, 1979).

Generally speaking, however, the number of employees is the most commonly used criterion, either on its own or combined with other indicators. Thus, according to many, including the Fundacao Instituto Brasileiro de Geografia e Estatistica (FIBGE), a Brazilian governmental institution which carries out

the census and provides statistical data, in the manufacturing sector, a small business is defined as one with up to 99 employees, a medium-scale firm is one employing between 100 to 499 and a large firm one with more than 500 employees (Dutra and Guagliardi, 1984). However, there is, apparently, a lack of consensus regarding the establishments of the size limits. Some authors, while agreeing with the definition of a small firm, prefer to define a medium-scale business as one employing between 100 to 250 people and a large firm employing more than 250 (Silva, 1978; Barros, 1978). Recently, enterprises employing up to 19 people have been denominated very small, micro or mini businesses (Dutra and Guagliardi, 1984). In the trade and service sectors, a firm employing up to 9 people is classified as very small firm, one with between 10 to 49 people as small firm, one with between 50 to 99 as medium-scale firm, and a large firm is one with over 100 employees (Cebrae, 1984).

In this thesis, which is concerned with manufacturing firms, a quantitative criterion is used in conjunction with a qualitative criterion to define a small firm. This is a company with between 20 and 100 working people, including owner-managers, which is legally independent and does not pertain to a group of companies or enterprise system, so that the decisions are genuinely made by the owner-managers. This definition is considered in detail in the chapter of research methodology.

No matter which criterion is used to classify the enterprises into size groups, the Brazilian small business sector share in total number of establishments, employment and output in any business sector is always outstanding. Using a very broad definition, the SMEs together account for over 99 per cent of existing establishments, over 83 per cent of total employment and over 79 percent of national product in the three business sectors, namely, manufacturing, trade and services (1980 data) (Cebrae, 1984). In the manufacturing sector alone, the SME sector accounts for over 99 per cent of total establishments, over 80 per cent of total employment and 73 per cent of the output value. In the trade sector the figures are

99.8 percent of the total establishments, 92.5 per cent of the employment level, and 88 per cent of the sector income (Cebrae, 1984). In the service sector, these enterprises account for over 99 percent of number of establishments, over 79 percent of employment and over 70 per cent of the sector income (table 2.1).

TABLE 2.1: Relative participation of the very small, small, medium and large firms in the manufacturing, trade and service sectors.

		Manufact.	Trade	Service
Very small firms	EST(*)	80.50	94.5	95.68
	EMP	19.24	61.0	55.39
	OP	8.20	31.8	37.77
Small firms	EST	14.94	5.0	3.79
	EMP	26.68	25.6	18.62
	OP	22.0	45.8	24.80
Medium firms	EST	3.98	0.3	0.31
	EMP	34.24	5.9	5.62
	OP	42.90	10.4	8.34
Large firms	EST	0.50	0.2	0.22
	EMP	19.84	7.5	20.37
	OP	26.90	12.0	29.09

Source: (Cebrae, 1984).

(*) EST = number of establishments, EMP = level of employment, OP = output value.

As in other countries, the bulk of the attention on the SME sector in Brazil is focused on the manufacturing sector. Thus, in 1970, according to census data, more than 90 per cent of the manufacturing establishments were classified as small businesses (including very small or micro businesses), employing up to 100 people (Dutra and Guagliardi, 1984). Ten years latter, the situation had not changed much; the sector now representing 93 per cent (table 2.2) of the total number of establishments, whereas the medium-scale firms sector represented 3,98 per cent and the large firms sector about 0.5 per cent.

Tables 2.2 and 2.3 demonstrates clearly the importance of

the Brazilian SME sector, mainly as a powerful source of job opportunities. This segment was responsible for about 70 per cent of the total manufacturing employment in 1970 and about 80 per cent in 1980, the biggest employer being the small firm sector which also presented a considerable increase in its share of employment in a time when the large firm sector actually had its share substantially decreased. Besides the SME sector had a significant participation in total output value in both 1970 and 1980.

TABLE 2.2: Relative participation of the small, medium-scale and large firms in the total number of manufacturing establishments in 1980.

Classification	No. of employees	Share of total establishments (%)
Small firms	1 - 99	93.00
Medium-scale	100 - 499	3.98
Large firms	500 and over	0.50

Source: FIBGE, 1984

Note: Including the mineral extraction industry but not including the establishments for which there was no information on number of employees.

TABLE 2.3: The position of the small, medium-scale and large firms in the manufacturing employment and output value in 1970 and 1980.

groups	share of employment		share of output value	
	1970 (%)	1980 (%)	1970 (%)	1980 (%)
Small	34.9	45.92	29.6	30.20
Medium	35.2	34.24	36.0	42.90
Large	29.9	19.84	34.5	26.90

Sources: FIBGE, 1984; Dutra and Guagliardi, 1984; and Cebrae, 1984.

The performance of the SME sector becomes even more outstanding when it is borne in mind that the period starting at the end of 1973 was one of moderate economic rates and sometimes of economic recession (Senai, 1980).

The Brazilian SME sector is also strongly represented in the number of establishments and total employment level of virtually all manufacturing sectors, the most important ones in terms of level of employment being furniture making; timber processing; plastic goods and leather goods industries (table 2.4). Other important SME industries are drinking industry, food processing, printing industry, pulp and paper (paper

TABLE 2.4: The SME sector in the manufacturing sector according to industries.

Industry	Establishments	Employment
	(%)	(%)
Furniture	99.4	99.0
Timber	98.0	96.7
Plastic goods	99.0	91.7
Leather goods	98.4	71.2
Drinking	94.0	89.0
Food processing	97.0	88.0
Printing	98.9	87.8
Paper processing	98.0	86.4
Pharmaceuticals	97.8	85.0
Chemicals & Fuels	97.0	83.4
N-metal minerals	93.0	82.7
Mechanical eng.	98.4	78.6
Clothing & footwear	98.7	78.0
Textiles & fuels	97.4	77.3
Soaps & Toiletry	98.5	77.2
Rubber industry	98.6	75.0
Metal manufacture	98.5	75.2
Electric engineer.	97.3	67.4
Transportation gds.	96.7	48.2

Sources: FIEGE, 1984; Tsukamoto and Koike, 1984.

processing), pharmaceuticals, chemicals and fuels, non-metal minerals, mechanical engineering, clothing and footwear, textiles, soaps and toiletry, metal manufacture, rubber industry, electric engineering and transportation goods. It is important to note that, contrary to what is generally believed, the importance of the Brazilian SME sector, up to certain

limit, does not depend on the degree of complexity and modernisation of the industry, being well represented not only in the so called traditional sectors such as furniture making, food processing and clothing, but also in the more modern sectors such as electric engineering, mechanical engineering and chemicals and fuels (Senai, 1980).

The SME sector has a predominant participation in the economy of each Brazilian geographic region, regardless of the regions' level of economic development. Tables 2.5 to 2.7 below illustrates this. Table 2.5 shows the participation of the SME sector in the regions' manufacturing industry in 1973. Table 2.6 shows the participations of the small firms alone and table 2.7 shows the shares of the medium-sized firms.

TABLE 2.5: Relative participation of the SME sector in the Brazilian regions' manufacturing industry.

Industry	Brazil (%)	Regions (%)					
		N	NE	SE	S	W	
Est*	Extraction	96.9	100.0	97.4	96.8	96.1	98.4
	Manufact.	97.7	98.0	97.4	97.7	97.8	98.4
Emp	Extraction	59.7	100.0	59.6	71.2	67.3	100.0
	Manufact.	70.1	67.3	70.7	67.7	78.4	98.1
Va	Extraction	50.8	100.0	59.0	74.1	82.5	100.0
	Manufact.	63.2	77.1	67.0	56.4	76.9	97.6

Source: Senai, 1980.

Note: The difference between 100 per cent and the percentages on the table are due to the participation of large firms and to establishments with no employees.

(*) Est = number of establishments; Emp = level of employment, Va = value added.

With respect to number of establishments, the SMEs dominate the regions' economy (table 2.5). This sector is the least represented in the extraction industry of the Southern Region, with 96.1 percent of all establishments. It is

important to note that throughout these tables, the difference to 100 percent is due to both large enterprises and establishments with no employees. In each region, the great majority of the establishments are small firms (table 2.6). In fact, the narrower the company's size limits, the greater the company's share in total number of establishment. The small firms (up to 99 employees) contribute with at least 4/5 of the regions' number of establishments, except in the extraction industry of the North Region (55.6 percent). Within this group of firms, and not shown in the tables, the small firms with less than 50 employees have the greatest share in each region.

TABLE 2.6: Relative participation of the small businesses in the regions' manufacturing industry.

Industry		Brazil (%)	Regions (%)				
			N	NE	SE	S	W
Est	Extraction	91.7	55.6	93.9	92.3	84.6	95.2
	Manufact.	89.7	91.0	90.6	88.9	91.0	95.8
Emp	Extraction	33.7	7.3	42.0	44.6	19.2	56.8
	Manufact.	34.9	33.9	33.5	32.2	44.8	72.3
Va	Extraction	17.0	5.5	29.2	27.6	-	-
	Manufact.	27.1	38.3	28.6	20.5	40.4	65.6

Source: Senai, 1980.

The SMEs are responsible for at least 2/3 of the regions' employment (table 2.5), except in the extraction industry of the Northeast Region where the sector's share is 59,6 percent. It is worth noting that the less important role played by the SME sector in the extraction industry is due to the presence of PETROBRAS, a large, government-owned oil company. Again, the small firms shares in employment tend to be greater than the medium-sized firms'. However, while the small firms share in employment tend to be smaller than their share in the number of establishments, the medium-sized firms share in employment is consistently larger than than their share in number of establishments throughout the regions (table 2.6 and 2.7).

The SMEs contribute with at least 2/3 of the regions' value added with the exceptions of the extraction industry of the Northeast Region (59 percent) and the manufacturing industry of the Southeast Region (56.4 percent). The medium-sized firms tend to contribute more than the small firms to the regions' value added, and the participation of the medium firms in the regions' value added tend to be greater than their share in employment. This implies that the medium-sized firms achieve a greater productivity index (output value/employment) than the small firms.

TABLE 2.7: Relative participation of the medium - scale businesses in the regions' manufacturing industry.

Industry		Brazil (%)	Regions (%)				
			N	NE	SE	S	W
Est	Extraction	5.2	44.4	3.5	4.5	11.5	3.2
	Manufact.	8.0	7.0	6.8	8.8	6.8	2.6
Emp	Extraction	26.0	92.7	17.6	26.6	48.1	43.2
	Manufact.	35.2	33.4	37.2	35.5	36.6	25.8
Va	Extraction	33.8	94.5	29.8	46.5	-	-
	Manufact.	36.1	38.8	38.4	35.9	36.6	32.0

Source: Senai, 1980.

The foregoing has illustrated the importance of the Brazilian SMEs for the country economy and welfare. No doubt, the Brazilian SME sector has played an important role in job and wealth creation up until the end of the seventies. During the last decade, however, the Brazilian economic crisis has worsened considerably. The gross national product per head has decreased also considerably - by 11 per cent during the period 81-83. During the period of 80-83, the level of employment decreased 20 per cent, the income per head decreased 10 per cent and the manufacturing output decreased 15 per cent. During the 1980s, Brazil started exporting most of its manufacturing production in an attempt to pay for its foreign debt and the export coefficient went from 14.4 per cent in 1980 to 28 per cent in 1984. Internally the uncontrollable and extremely high

rates of inflation have worsened the environment uncertainty conditions (Tsukamoto and Koike, 1986; Rezende, 1984).

Given these recessionary conditions, it is suggested that, from 1980 the SMEs have been facing serious difficulties. The environmental uncertainty with the constant change in the economic rules are said to be threatening the survival of many small firms, given their vulnerability in times of economic crisis. It is argued that many of them have disappeared, others have entered the "black economy" or informal sector (Tsukamoto and Koike, 1986). However, at the time of writing of this thesis there was no more recent statistics available so as to derive an up-to-date analysis of the sector.

2.2. Small Business Assistance in Brazil

Official interest in the SME sector has only recently been intensified. Although it is found in the literature information on government programmes concerned with the small and medium enterprises dated from the early 1960s (Cebrae, 1979), it is only from the 1970s that government attention has been widely focused on the SME sector especially after the foundation of the Centro Brasileiro de Apoio a Pequena e Media Empresa - CEBRAE (Pereira, 1977). From that time the development of the SME sector, that is, its growth in terms of number of firms, employment and output value, has been seen as necessary to the country's own economic development. Such a government philosophy underlined both the Second and the Third National Development Plans where the SME sector was regarded as able to:

-
- : . Diminish regional unbalances; :
 - : . Promote a more egalitarian income and other :
 - : economic development benefits distribution; :
 - : . Increase level of job opportunity supply ;
 - : and productivity; :
 - : . Help curb inflation (Senai, 1980). :
-

According to government statements, the development of the SME sector is fundamentally dependent on the increase of its productivity. Such a belief underlines the action taken by official support bodies which concern themselves with the modernisation of the assisted SMEs. This aim is sought through the supply of managerial assistance based on modern management methods and techniques and of financial assistance destined to ease the acquisition of modern production equipment and machinery. (Banco do Brasil, 1977, 1980, 1982; Abme, 1983; Diniz and Boschi, 1979).

On the light of these broad objectives, the Brazilian SME support is undertaken by a series of institutions and agencies which are mainly governmental bodies and can be seen as composed of two major parts, illustrated in Exhibit 2.1. Firstly, that concerning the provision of finance and credit assistance by the governmental banks. These banks are the Banco Nacional de Desenvolvimento Economico e Social (BNDES) and its states representatives, concerned with the economic and social development of the country; the Banco do Brasil (BB), a major governmental commercial and agricultural bank; Banco Central do Brasil (BCB), the Brazilian federal bank; and Caixa Economica Federal (CEF), a major savings bank which also helps to implement the government housing programmes. The other part is composed of instruments to provide technical and managerial support which is delivered mainly by the Centro Brasileiro de Assistencia Gerencial a Pequena e Media Empresa (CEBRAE) at the national level. At the state level, assistance is delivered via CEBRAE's state representatives, the Centros Estaduais de Apoio Gerencial a Pequena e Media Empresa (CEAGs) (Pereira, 1977). These two parts interact one another and the provision of finance assistance is regarded as a means to channel technical and managerial assistance (Senai, 1980; Banco do Brasil, 1980). These two parts are addressed in the next paragraphs.

The first government measures to assist the SME sector were of a financial nature. The national network of development banks, the BNDES and its state representatives, became both suppliers and distributors of this kind of assistance which

Exhibit 2.1: Major Brazilian SME promotion institutions

Type of assistance	Institutions name	Institution structure	Major activities	Sectors assisted
FINANCE AND CREDIT	BNDES Nacional Development Bank and State Development Banks	National office and State agents	Financing of investments, fixed assets, premisses. Lower interest rates to SMEs in backward areas.	Manufacturing
	BB Bank of Brazil (commercial bank)	National office and City branches	Financing of SMEs working capital; Credit lines to micro firms; Export credit programmes; Lower interest rate to SMEs in backward regions.	Agriculture Manufacturing Service and Trade
	BCB Brazilian Federal Bank (commercial bank)	National level only	Determines and commands the introduction of small firms special credit programmes; Financing of agricultural production and rural cooperatives; Financing of SMEs working capital	Agriculture Manufacturing Service and Trade
	CEF Federal Savings Bank of Brazil	National office and City branches	Financing of SMEs working capital; Credit lines to micro firms; Special credit lines to micro business; Special interest rate	Manufacturing Service and Trade
MANAGERIAL TECHNICAL AND TRAINING	CEBRAE (Small firm agency) and CEAGs	National office and State agents	Coordination of the national SME promotion effort; Consultancy; Counselling; Managerial training; Courses; research.	Manufacturing Service and Trade
	CNI (Manufacturing trade association) and CAMPIs	National office and State agents	Manpower training Consultancy, Counselling, Courses, Research.	Manufacturing
	SENAI (National Manpower training organisation)	National office and State agents	Manpower training, Counselling, Courses, Research.	Manufacturing
	SENAC (National Manpower training organisation and trade association)	National office and State agents	Manpower training, and Courses.	Trade and Service

consisted mainly of special interest rate financing to cover both investment on fixed assets and on working capital. Within this, a programme entitled Fundo de Financiamento a Pequena e Media Empresa - FIPEME - was created. This pioneer initiative was a fund to finance the the Brazilian small and medium-scale enterprises and had the following objectives:

-
- | . facilitate the participation of the SMEs into |
 - | the development process of the country; |
 - | . boost SME export activities; |
 - | . diminish regional and sectorial unbalances of |
 - | the Brazilian economic development. (Barros, |
 - | 1978; Senai, 1980). |
-

The programme comprised the financing of fixed asset destined to establishment or expansion of small and medium-scale manufacturing enterprises, and the supply of guarantees so that the company was able to obtain credit, mainly from foreign institutions, for the acquisition and fitting of equipments and machinery, for premises construction and for obtaining technical assistance. Nowadays, the scheme scope is not as wide and does not cover all the manufacturing sector (Senai, 1980).

Presently the BNDES runs 4 major exclusive credit programmes for the financing of the SME, with some focus on the very small firms. Almost always the credit benefits are directed to manufacturing firms and investment in fixed assets. Also, as a Development Bank, BNDES favours SMEs located in less developed areas of the country. These enterprises also benefit from credit at lower interest rates than those of other areas. The BNDES runs other financing programmes but these are not exclusively concerned with the SME (Barros, 1978).

The Banco do Brasil (BB), an important bank operating as a commercial bank and as promoter of national agriculture and exports, established its first SME special credit programme in

1963 which was followed by a second one in 1965 (Cebrae, 1979). In addition, in 1980 BB created a special SMEs assistance programme known as NIPEM (Sistema de Apoio Integrado as Micro, Pequenas e Medias Empresas). This programme entailed the provision of management consultancy and counselling to prospective clients whose needs of extra external financing were deemed by the bank a result of weaknesses in any management area. (Banco do Brasil, 1980; 1985). At present, BB offers many special lines of credit to micro, small and medium-scale firms of either sector: manufacturing, trade, services or agriculture. Some of these lines of credit are concerned only with firms located in backward regions (Banco do Brasil, 1980; Colin, 1979), whose enterprises benefit from lower rates of interest. In 1982, the SMEs assisted by BB represented 90 per cent of its total number of clients (BANCO DO BRASIL, 1982).

However, it is not the amplitude of BB's financing assistance that places the bank in such an outstanding position. With its numerous branches all over the country, including very small towns, BB is able to take assistance to areas where other institutions cannot reach. Frequently the BB branches are the only available credit and information source to many firms in remote areas. The knowledge of the local firms that the bank's local branch clerks develop place them in an advantageous position regarding the allocation of the various lines of credit to firms needs. And by helping the small firms located in remote areas, BB plays an important role in the government's major social objective: the creation of job opportunities in backward areas and the reduction of migration to larger urban centres (Banco do Brasil, 1982).

Another important institution in the Brazilian SME financing assistance is the Brazilian federal central bank - Banco Central do Brasil (BCB) - which carries out a twofold task. First, as the regulator of the national financial system, BCB determines and commands the introduction of special SME credit lines in other banks. Some of the credit lines run by financial institutions mentioned in this section were

established as a result of BCB's regulations (Rumos do Desenvolvimento, 1984). Second, it is a supplier of credit to SMEs, usually to fund working capital (Colin, 1979).

The Caixa Economica Federal - CEF - is another government institution which caters for the financing of small firms, but again it is not solely a SME assistance institution. Among other programmes, the CEF implements the Programa para Atendimento Especifico as Microempresas Nacionais - PAMICRO, which is a programme specifically concerned with the very small firms of the country. Besides offering easy term credit, the programme comprises the provision of bank guarantees (Senai, 1980).

The supply of financial assistance, it is argued, led to the need for instruments destined to offer technological and managerial assistance in order to tune the SMEs to the requirements of the financing institutions. Thus, the most important Brazilian SME institution - Centro Brasileiro de Apoio a Pequena e Media Empresa (CEBRAE) was founded in 1972 (Cebrae, 1979; Senai, 1980). A nonprofit organisation CEBRAE provides business consultancy, managerial training, subcontracting, credit and information exchange to very small, small and medium-scale firms in any sector of the economy - agriculture, manufacturing, trade and service (Tsukamoto and Koike, 1986; Rattner, 1985; Cida, 1985). CEBRAE also coordinates and evaluates the national, state and local SME programmes which are implemented by CEBRAE's state branches known as Centros Estaduais de Apoio Gerencial (CEAGs) in every Brazilian state (Cida, 1985; Senai, 1980). CEBRAE and CEAGs also carry out studies and research on the field of SME for both CEBRAE and government decision making process (Pereira, 1977).

The Confederacao Nacional da Industria - CNI - is another institution providing technical and managerial assistance to SMEs. It is a major trade association focused on the manufacturing sector. The implementation of CNI's programmes is undertaken by, on one hand, SENAI - Servico Nacional de

Aprendizagem Industrial - a long established institution with national and various state representatives, whose main objective is the training of manpower throughout the country. On the other hand, CNI's SME assistance is carried out by the Sistema Nacional de Assistencia a Media e Pequena Industria - SAMPI. SAMPI comprises a central body known as DAMPI (Departamento de Assistencia a Media e Pequena Industria) which plans and coordinates all the SAMPI activities, and state representatives, known as CAMPI (Centro de Assistencia a Media e Pequena Empresa Industrial). Through such system CNI provides manpower training, technical and managerial assistance and advice besides carrying out scientific studies on the field and promoting seminars and debates with the entrepreneurs (Gazabini Filho, 1981; Senai, 1980; Campi, 1982).

It is important to mention that the allocation of the federal government SME assistance to the different states and regions has always been guided by two aspects: first, the level of development of each region, in order to accomplish the ultimate objective of reducing regional unbalances; second, the existence of structured mechanisms of SME assistance in each state, which contributes to the proliferation of state representatives of the national bodies and to the foundation of many institutions catering for regional development (Senai, 1980).

The foregoing discussion concentrated on the major Brazilian institutions for the promotion of the SME sector. Apart from them, other institutions operate throughout the country to offer assistance at the national, regional, state and local levels. Most of these institutions, however, are multipurpose organisations and not concerned solely with small and medium-sized companies. A sample of these institutions is presented in exhibit 2.2.

Finally, the Brazilian SME assistance effort involves a number of extremely local schemes run by city governments and sometimes by private bodies. Outstanding in this respect is the role of the government of the Parana state capital - Curitiba,

which runs a number of local programmes, some of which are exclusively concerned with very small firms. One of such programmes, known as Programa Nosso, aims at promoting the local micro manufacturing firms's products helping them to sell to local large retail firms, department stores and supermarkets. The programme also provides information and advice on purchasing, production, pricing and commercialisation. The local government, thus, functions as a marketing agency to the very small firms (Zokner and Groff, 1983).

Exhibit 2.2: Other Brazilian SME assistance institutions

Level	Institutions	Major Activities	Sectors
NATIONAL	FINEP (A governmental development agency)	Special credit programmes to the purchase of machinery and equipment	Manufacturing
	BAN (Governmental housing programme planning institution)	Special credit programmes	Building Industry
	EMBRATUR (Governmental tourism industry promotion agency)	Special credit programmes	Tourism Industry
	CNC (National association for the trade sector)	Managerial counselling and Manpower training	Trade
REGIONAL	Regional Development Superintendencies	Technical assistance; Managerial training; Construction of industrial estates; Credit and taxes benefit.	Manufacturing Trade Service
STATE/ LOCAL	State/local governments and State development agencies	Credit lines and benefits	all Sectors
	Research institutions, Universities some Private organisations.	Managerial training; Counselling; Courses and research.	all Sectors

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CHAPTER III

THE SMALL FIRMS MARKETING AND COMPETITIVE STRATEGY CONTEXT

As briefly seen in the introduction chapter, the literature on marketing for small firms is very limited. Nonetheless, it is important to review in some detail those texts which presently exist and which may contribute to the problem identified in the introduction, viz, the competitive strategy of small firms. As mentioned earlier, this is composed of a plethora of descriptive and advisory material which lacks scientific basis, being mostly derived from the authors' personal experience and casual observation (for instance, Wood, 1973; Justis and Jackson, 1978; Maile and Smart, 1978; Manzer et al., 1980; National Westminster Bank, 1985). There is also a number of marketing text books which claim to approach the subject from a small business perspective. However, most of them are primarily concerned with principles of marketing which have been fully discussed by the marketing general literature. Few of them include practices appropriate for small firms or comment on why the suggested practices can be adopted by these firms. Good examples are Roe, 1969; Brannen, 1978; Smith, 1984; and Brown, 1985.

This literature is, however, very valuable since it is always committed towards stressing the importance of marketing to today's companies, what, in the long run, can change the small businessmen's generally passive approach to a more active approach towards marketing. As to the specific aspects of marketing prescribed, this literature is also very valuable to the extent that it attempts to call the small businessmen's attention to aspects usually neglected by them such as marketing research, advertising and promotion (Barnes et al. 1982; Patterson and McCullough, 1980, etc). Moreover, it should be recognised that such a literature is an important

source of hypotheses to be tested empirically.

On the other hand, empirical investigations into the actual experience of small firms marketing are at a minimum and, as Davis et al. (1985) argue, most of what is available lacks scientific basis. Moreover, studies have been carried out in isolation without association or continuity to previous investigations.

The major purpose of this chapter is to review in details the knowledge of small firms competitive strategy both considering the theoretical recommendations and the findings and conclusions of empirical investigations. However, to situate the reader in a more comprehensive background, the marketing context of small firms will be initially considered.

3.1. The Small Firms Marketing Context

The majority of enquiries into the realities of the small firms marketing context, both in Brazil and elsewhere, shares one common general conclusion: small firms do not tend to apply the marketing principles and concepts or to make frequent use of its tools and techniques. The owner-manager, in general, lacks marketing skills and knowledge being still in a primary marketing stage, that of a passive selling approach. In general, small firms are more concerned with production than with customers, are unaware of the value of market information and ignorant of marketing tools. These studies also indicate that the lack of marketing in the small firms contribute to small firms failure and that many of the problems faced by them are related to the marketing area. These conclusions are confirmed by The Marketing Society (1967); Cohn and Lindberg (1972); Ford and Rowley (1979); Jackson et al. (1979); Ceag-SP (1979); Ceag-RJ (u/d); Franklin and Franklin (1982); Kinsey (1983); Dutra et al. (1984); Murray (1984).

Marketing information gathering and control systems are

also said to be nearly non-existent in the great majority of small firms. Evidence from Brazil indicates that the owner-managers neglect marketing information which they believe to be large companies practice and largely unimportant to them (Richers et al., 1967). Information on market, customers and competitors is only informally gathered by the owner-manager through personal observations of market behaviour and competitors' products and strategy and through conversation with clients, suppliers and friends, who are usually entrepreneurs too. The owner-managers also try to gather relevant information on the local newspapers and radio and TV news (Ceag-RJ, u/d; Dutra et al., 1986). The small firms also lack internal systems of control and monitoring; even the simple ones such as sales monitoring and forecasting, accounts receivable control system and clients data base are often non-existent (Ceag-RJ, u/d). That is most certainly the situation in other places too, telling from the evidences given by writers who suggest that marketing research is a very much neglected activity by small firms (Barnes et al., 1982; Kinsey (1983).

Such a disregard to formal marketing research means that the small firms owner-managers do not generally possess sufficient market knowledge upon which to design the company's marketing strategy. Another possible consequence of this is that the small firms engender limited efforts towards achieving or assuring competitive advantage. To overcome such weakness, some authors propose marketing research methodologies claimed to be suitable for small businesses (Justis and Jackson 1978; Maxfield and Barton-Dobenin, 1980; Patterson and McCullough, 1980; Barnes et al. 1982; Boughton, 1983; Gorton and Can, 1983). Although mostly prescriptive and lacking empirical basis, these methodologies can be very useful given that most of them are focused on the need of both making efficient use of small firms internal records and being cost effective, mainly with regards to primary-data collection. These are certainly important issues given the small firms resources limitations.

Murray (1984) suggests that small firms can overcome the problem of lack of marketing information through a programme of co-operative marketing. Jointly with other small firms of the same product sector, a company can have access to a "range of marketing advises on a shared cost basis and under professional direction".

Only rarely do the small firms undergo product development as a matter of policy. When product changes and new product introduction occur they are a result from demand factors pressure, that is, to meet clients request or to keep up with competitors (Richers et al., 1967). In fact, as Kinsey (1983) found in Scotland, a lack of conscious product policy or programme of product development is said to be evident.

Product quality tend to be emphasised by most of the small firms. Richers et al. (1967) found that, from the owner-manager perception, high quality standard was very important as a means of both creating a favourable image in the market and meeting competition. Kinsey (1983) confirm this stating that the ability to provide high quality products and reliable services was considered by a significant number of small firms as one of their strength. In these companies the owner-manager himself was most often in charge of quality control.

Davis et al. (1985) argue that the close and intense ties between management and production labour in small companies facilitate the control of product quality. Brannen (1978) suggests that high quality products and services often strategically offset the established image of large competitors. Richers et al (1967), cautiously, point out that small-business owners should not blindly emphasise quality because in this respect consideration on whether customers can perceive difference in standards of quality must be taken.

Pricing decisions in small firms are often the result of intuitive decision at ignorance of product cost and market information. In Brazil, experience has shown that the great majority of the companies would establish their final product

price on a cost-plus approach without consideration of factors such as customers, competitors and market (Richers et al., 1967). Even the amount of total cost is often not precisely known by the price-decision maker. Total cost is worked out based on the amount paid to suppliers (Ceag-RJ, u/d). Such an experience is also evidenced by Kinsey (1983). Lanzillotti (1967) indicates a slightly different picture. On the whole, the companies attempted to realise a predetermined rate of profits on total costs or total sales and costs would be actually calculated. Alternatively, price decision makers would also take into consideration major competitors prices. Jackson et al. (1979) provide further evidence on the pricing decision methods and on the pressing nature of pricing problems in small firms. Their own study, carried out in the West region of the USA among 138 retail giftshops, elicited that the great majority of the companies' pricing method emphasised cost factors and de-emphasised demand factors. Just a small minority based their pricing decision on formal practices such as break-even analysis. Those findings confirm the general view on the theme.

Richers et al (1967) argue that frequently the small firms can charge a higher product price than competitors appealing to certain advantages that differentiate their offer in the market. These advantages are personal services, flexibility, ability to produce out-of-specifications items on clients request or ability to meet special orders, and faster and special delivery, among others. The authors also comment on the advantages and risks involved in alternative pricing strategies: lower price and competition-matched price. Oxenfeldt (1964), cited by Dutra and Guagliard (1984), and Mureau (1980) share the same point of view. He advises that small firms can overcome the price competition difficulties by exploiting their natural advantages derived from their decision-making flexibility and closeness to customers. Wood (1973) argues that small companies should consider both supply and demand factors in pricing decision and advises on the use of marginal costing techniques.

As to advertising it appears that some small firms do it frequently and others only very rarely. However, even when they do advertise, this is not a matter of an ongoing, integrative and coordinated campaign. In Brazil, the evidences from Cezario (1979) and from Dutra et al. (1984) indicate a very incipient use of advertising as well as a limited choice of media: local newspapers and radio station. Jackson et al. (1979) investigating the advertising practices of small giftshops in the USA, found that a large percentage of the study sample used some form of advertising. However, no single advertising medium appeared to be overwhelmingly favoured by a majority of the respondents who would make use of just about every known kind of medium. However, Kinsey (1983) found a different picture among manufacturing firms in Scotland where advertising and promotion received only little emphasis from the small businesses and were perceived as one and the same and largely unimportant.

With the argument that advertising is a very important means for the small firms to communicate with their markets and to boost sales volume, National Westminster Bank (1985) presents guidelines to planning what it claims to be an effective advertising programme. Certainly a very useful guide for the small entrepreneurs assuming they do not have any formal knowledge on the subject. Continuing this theme, Lincoln and Naumann (1982) propose a way of developing an advertising programme for small firms based on the management by objectives approach, and Wood (1973) suggests that small firms should make use of local newspapers and trade journals, direct mail and trade and exhibitions.

Salesmanship and personal selling, on the contrary, tend to be highly valued by small companies. This is confirmed by Richers et al. (1967) and Dutra et al. (1983) in Brazil, by Kinsey (1983) in Scotland and by Ford and Rowley (1979) in England. In most cases, the total salesforce comprised only the managing directors (owner-managers and partners) who, as Richers et al (1967) argue, usually found it difficult, and most often could not afford, to hire efficient, experienced

salesmen.

The distribution methods most frequently used by small firms in Brazil, as elicited by Richers et al. (1967), are direct distribution and distribution via sales representatives, in the case of industrial goods. Direct distribution through manufactures' owns retail shop or distribution via independent retailers are the most common methods in the case of consumer goods.

The following set of contributions to small firms marketing state of knowledge is purposely left to the end of this section. These contributions shed a different light on the general view of the small firms marketing so far established.

Carson (1985) proposes that the application of marketing models and concepts by small firms follows an evolutionary pattern of four stages. In the first stage, marketing is usually non-existent or, at best, performed in a very primitive fashion. In this stage clients are obtained through personal contacts only and product quality and function, price and delivery are the marketing instruments emphasised by the companies. As the number of customers increases, the company goes through the second stage of the marketing evolution in which the approach is still most reactive. The need for sales increase lead to the need for a more aggressive marketing and for marketing specialists. This cannot easily be arranged due to resource limitation. The owner-manager takes the marketing activities on his hands - the DIY approach. That takes the company into the third stage which ends with the owner-manager having to address the same problem as at the beginning of this stage. Finally, the fourth stage in the marketing evolution process is characterised by an integrated proactive marketing - the professional stage. Although very much interesting, Carson's suggestion needs to be empirically verified by further studies.

Ford and Rowley (1979) investigated the use of concepts and ideas from the marketing literature by small UK companies.

Their findings elicit that the owner-managed companies generally did not apply the marketing model and concept and highly valued a better-product and salesmanship Philosophy. On the other hand, the professionally managed firms did, to certain extent, conform with the marketing concept "particularly in respect of explicit analysis, planning and control of the marketing function".

Interestingly, Ford and Rowley (1979) concluded that the reasons why companies as a whole rejected the marketing concept lay in the owner-managers personal characteristics and objectives with which the marketing model was believed to be incompatible. In short, the authors concluded that the reasons for the small firms rejection of the marketing model were:

- ". An unwillingness to make the necessary financial investment
- . A reluctance to relinquish personal control over areas of company activity
- . An unshakable faith in "the better product" theory
- . A fear of loss in job satisfaction ."

Dutra et al. (1986) carried out a comparison of the marketing activities of small firms of different manufacturing sectors (clothing, food processing, metal manufacturing and furniture making) and concluded that the marketing principles, tools and techniques perceived by the owner-managers as important to the company's operation varied considerably according to the manufacturing sectors. In other words, they found that some marketing principles, tools and techniques were more frequently used by small firms in a particular sector than in others. They also found that small firms in the clothing industry were the ones in which the marketing activities were most prominent and emphasised. These firms would frequently carry out marketing research (on competitors and customers, although on an informal basis), analyse products contribution to sales and execute sales control, carry out sales promotion and advertising, and make use of packaging and branding as marketing instruments. The other firms in the study would tend not to do so, or, at best, would only very rarely do. Pricing

would be mostly based on cost factors in all firms but the clothing industry firms were more inclined than the others to take demand factors into consideration. However, product development was more emphasised by the food processing companies than the others and it was the least emphasised by the clothing firms. In general, the furniture making and the metal manufacturing firms de-emphasised most of the marketing practices.

Finally, Stoner (1987) carried out an exploratory study to identify small firms areas of distinct competence which could be translated into competitive advantage. Among 46 very small firms (ten or fewer employees), the author identified eleven such areas, the most frequent ones being: a) experience, knowledge and/or skills of the personnel; b) unique, special and/or original product or service; c) better, more complete customer service; d) low costs/price; and e) relative quality of product/service. Interestingly, by doing comparisons of distinctive competences between on-going and start-up businesses and between groups of different types of business operations (retailing, servicing and manufacturing) Stoner was able to obtain substantially different patterns of competence in each group.

The general view on the small firms marketing context becomes now far less discouraging. The above contributions clearly demonstrate that not always the small firms neglect the marketing principles and activities as some studies have established. Also, these contributions are an important indication that when contingency-based factors, which characterise the small firm sector as heterogeneous, are taken into consideration, the patterns obtained are substantially distinctive from the overall picture, indicating most probably a closer approximation to small business reality.

3.2. The Small Firms Competitive Strategy

This section first reviews the theory, then the empirical

research is considered.

The prescriptive literature on small firms competitive strategy seems to converge to one basic suggestion. It has been generally advised that small firms would perform better in small markets with well-defined boundaries with a segmented, specialised and concentrated strategy, rather than attempting to compete in the mass markets (Finley, 1980; Shea, 1980; Brown, 1985). The following quotation illustrates the reasoning for such a strategy:

"The smaller company cannot expect to dominate an entire market against existing competitors, many of which will be considerably larger, with much greater financial and managerial resources, but the management of the smaller company can search for a segment of the total market in which competition is not intensive, and then concentrate their efforts and activities in that segment ..." (Hosmer, 1982: 49).

Kotler (1980) considers that such a strategy, which he terms market niche strategy, is the "salvation" of the smaller firms:

"... the salvation of these firms is to find one or more market niches that are safe and profitable." (Kotler, 1980: 286).

The competitive strategy these businesses should adopt, he argues, is

"... to attempt to find and occupy market niches that they can serve effectively through specialisation and that the major are likely to overlook or ignore ... The key idea in nichemanship is specialization along market, customer, product or marketing-mix lines." (Kotler, 1980: 285-286.)

Woodward (1976), drawing from his experience as consultant to small firms, advocates the need to adopt what he terms "shrinking strategy":

" ... there is no better road to efficiency than to eliminate complexity entirely, usually by shrinking the business to a smaller and more manageable size." (Woodward, 1976: 116).

He goes on arguing that this can be achieved through, for instance, focusing on a limited number of objectives or reducing the product line breadth.

Davies and Kelly (1972) continue this theme stating that limited markets, too small to be considered by large firms, provide the biggest opportunities for small firms. Franklin and Franklin (1982) suggest that small business should tailor its operations to specific markets. It should carefully segment the market to identify profitable niches. As they put it:

"Small business must recognise and appeal to an identifiable audience - not all audiences"

Perry (1987) suggests that, in order to grow successfully, small firms should always follow a niche strategy accompanied by market development and product development strategies, in that order. He does not advise a small firm to adopt market penetration and diversification as growth strategies and argue that "vertical integration should only be a reaction to competitors' activities. By means of three case studies of established small firms in Australia the author illustrates his suggestions. Needless to say, however, a larger sample is needed to confirm Perry's conclusions.

As to product, Allen (1973) suggested that small firms should concentrated on products which require neither of the following: a) large amount of capital per unit; b) heavily retooling costs; and c) heavy marketing and administration costs relatively to other costs. Or, in another way, small firms are expected to do better by offering unique or distinctive products which can only be produced in small scale (Brannen, 1978); products with special features which distinguish the company from its competitors (Wood, 1973).

Franklin and Franklin (1982) go on to say that a small firm must follow a targeted marketing strategy with a distinctive rather than a comprehensive line of products or services. Richers et al. (1967) advise that small firms should attempt to assure product and market differentiation and

compete on the basis of quality and specialization, with a concentrated, narrow product line.

It appears that the above recommendations are not without reasons. In so doing, as argued, the small firms would benefit from a number of advantages. The geographical concentration would allow small firms to develop greater personal contacts with clients and this would facilitate the identification of community needs and peculiarities (Richers, et al. 1967; Mathes, 1979). The small firms would also benefit from local regional dealers loyalty and consumer brand preference since, as Mathes (1979) argues, "there is also generally a desire to do business with a concern closely identified with that particular community". Because the market is small, the owner-manager could very often help personally to sort out problems with customers and hence enhancing the company's image. By attending a small market the company can operate from an informally-organised basis which would facilitate communication and decision making, thus allowing the small firms greater flexibility to react to changes in the market (Mathes, 1979; Brannen, 1978). The small firms would face less production problems and the problems occurring would be of a similar nature; hence decision-making would be made easier and quicker and the company would assure greater and increasing efficiency (Richers et al. 1967). Specialization of products or markets would allow the small firms to concentrate attention in each single product in a greater degree. In fact, closeness to market, flexibility and specialization are seen as the major triumph of small firms in competing with the major rivals (Mathes, 1979).

On the other hand, however, the authors point out to certain disadvantages. Such a concentrated, segmented strategy necessarily imply in a situation of extreme vulnerability to only one market or type of market. Any turbulence in that market would be a risk to the small firms survival (Richers et al., 1967). Narrow product-line can also sometimes be a weakness. In certain markets consumer may prefer to buy the whole line from the same manufacturer, and this would lead to

loss of customers (Mathes, 1979).

Richers et al. (1967) suggest that small firms can choose from two alternative strategies: Price competition and product competition. However, as they argue, a small firm would benefit most from choosing a product competition strategy - based on product characteristics and aiming at achieving singularity - because retaliation is more difficult in this case. While competitors are not able to introduce product modifications to minimize the effects of such a strategy, the small firm would enjoy a condition of monopoly. Mureau (1980) also suggests that strategies other than price-based ones are more appropriated to small firms. The author points to strategies based on personalised services, quality merchandise or distinct designs, which are all product characteristics.

Manzer et al. (1980) comment the relationship between small firms success and its corporate image. They advise that the "objective of creating an appropriate image should be aggressively pursued" and that instead of going for general images, the small firms would achieve more success with a "more specific approach" on themes such as service or product quality, technical expertise, efficient service, quick service, full or special services, old-fashioned dealing and service, progressiveness, competitive pricing, and guaranteed satisfaction. Stancil (1984) shares the same point of view and advises that for a small firm it is not enough to provide products of high standards of quality. It is most necessary to create a "good" corporate image in the market both among customer and non-customer groups. He then points out to factors that affect corporate image in a small company.

Less generalised suggestions are given, for instance, by Brannen (1978), still within the general principles of specialisation and concentration of efforts. Brannen's suggestions are also based on the belief that

"... the matching of inherent market segment characteristics with inherent small businesses advantages should point out market segments [and strategies] which would be especially attractive

target markets for the SBM [small business marketer]." (Brannen, 1978: 60)

Some of Brannen's suggested target markets for small firms are:

a) According to market characteristics:

- . Based upon needs large companies cannot afford to fulfil or are not interested in,
- . whose demand fluctuates,
- . where large lump sum capital is not required for obtaining a reasonable share of the market.

b) According to consumer behaviour:

- . where high customer loyalty is possible,
- . with strong group identity,
- . whose buying habits and/or patterns are not in compliance with the methods and procedures for big business,
- . which place high value on the expertise of a specialist.

c) According to product:

- . which are served by a product with high levels of services,
- . which require unique services (customer services),
- . which require new product development but when development time is short,
- . which can be satisfied with a narrow, distinctive product line,
- . in which products are extremely perishable (either physically or on a fashion way),
- . in which products are required in high quality.

d) According to place:

- . segments served by open channel systems.

e) According to price:

- . which small firms can serve at a lower price,
- . Where direct price comparisons are unimportant or very difficult to achieve.

f) According to promotion:

- . which can be promoted effectively with a heavy proportion of personal selling and a light proportion of mass selling (advertising).

g) According to environmental factors:

- . where great resources are not required to compete,
- . segments limited in size and number by legal restrictions,

- . segments using products which (due to the state of technology) have short production runs.

Not denying the value of such literature as mentioned earlier, it must be pointed out that it does not overcome the need for insights into the actual strategies of small firms. The strategies prescribed are too general to be useful to an individual company. In reality these strategies might be somewhat different, depending on the dominant environmental factors influencing the company's behaviour. As briefly seen in the introductory chapter and considered in detail in the following chapter of this thesis, marketing and the selection of strategies are contingency-based activities and as such internal and environmental factors will bear a great influence on their effectiveness. In this regard, some authors make reference to environmental variables in their prescribed marketing models (Brannen, 1978). How they can and actually do affect the nature and effectiveness of the small firms marketing and competitive strategies is left unanswered.

Regarding the actual competitive strategy of small firms in Brazil, very little can be said. Almost no research has been designed to investigate specifically that subject and what is known is derived from fragments of general investigations. Apparently, small firms compete on the basis of price lowering and on the claim that their products are of better quality. That is evidenced by research efforts of Ceag-RS (1977), Cezario (1979), Ceag-SE (1979), Vieira et. al (1967 and 1968), and Ceag-RJ (u/d). It was verified that the small firms in the car spare parts sector also emphasised price related aspects such as special price-discount and credit sales and tried to improve delivery and customer relations (Vieira et al., 1967). In the textile sector it was verified that small enterprises concentrated on the selection of raw materials as a means of assuring better quality of final products. However, with a very incipient production process quality control, the objective was rarely achieved and this was one of the factors responsible for the small firms difficulties in competing with larger firms (Vieira et al. 1968).

Richers et al (1967) found that small firms in their study sample had chosen to operate in markets not attended by large firms, and hence avoiding direct competition with them. That finding confirms Hosmer (1982) suggestion above mentioned. These firms would also concentrate on highly differentiated and specialised products or on products made on customers' requirements. That is, the firms adopted a very concentrated marketing strategy - differentiated products to a particular market segment. This also confirms previous indications. In other occasions, the small firms would compete on the basis of price when they either followed the market-leader price or adopted a low price strategy.

A group of research work (Ceag-RS, 1977; Ceag-RJ, (u/d); and Cezario, 1979) found that small firms compete in a limited geographical area, with local markets, usually the town or immediate region of its location. This confirms the general advise of a local segmented market above mentioned.

However, findings from other enquiries are very much divergent from what is generally claimed. Ceag-RJ (u/d) studying the manufacturing firms with less than 10 employees that had been assisted during 1979 found that they usually had an extensive and diversified product line, rather than narrow, specialised product-line as normally suggested. Dutra et al. (1986) found that small firms from different manufacturing sectors had distinct market strategies. The small firms studied did not sell solely to their local markets and these were not always the company's major markets. Small food processing companies tended to make most of their sales (more than 50 percent of sales volume) to local markets, whereas small clothing firms made most of their sales to more distant markets (about 70 percent). Metal manufacturing and the furniture making firms were in an intermediary position. These companies also served different types of clients, being that the small food processing firms concentrated on the final consumer, making most of their sales to them, very much contrary to what did the clothing firms. They would sell only very little to this type of client.

These findings are interesting because they give grounds to the present research and indicate that further research is needed to clarify conflicting views. It is realistic to suspect that the competitive behaviour of a small company vary according to different types of competitive environment conditions.

All the above findings provide, however, only clues as to the way small firms actually compete in Brazil. The very nature of the competitive strategy and the way it relates to company's competitive environment and performance are still unanswered. The small firms dependence on environmental and market structure conditions, the contingent nature of marketing decisions and the influence of strategy on performance all indicate that a differing approach to the study of the small firms competitive strategy will most certainly yield new connotation to generally accepted truths and most findings so far.

A limited group of empirical research works has to certain extent taken the above requirements into consideration. Their objectives, in one way or another, were to identify competitive strategy elements that could be associated with small firms success as measured by either performance indexes or the simply fact of having survived a number of years.

In Brazil, empirical studies such as those referred to above are, again, hard to be found, if not nonexistent. The only one found along these lines is a follow-up on a study carried out some 13 years before (Rattner, 1979). This study's major objective was to provide a deep insight into the process of survival and growth which characterised 60 per cent of the small companies previously surveyed. Regarding the marketing survey (Figueiredo, 1979), the objective was that of identifying the marketing strategies which had proven effective. It was found that market penetration and product development were the strategies that led to the companies growth. For market penetration the author meant the companies

attempt to increase sale volume of their current products through more aggressive sales and distribution strategies, without increasing their market scope. For product development the author meant the companies attempt to increase sales through product modifications without necessarily introducing new products and without increasing market scope. Products had been frequently and highly changed and innovated, however, this did not mean that completely new products had been introduced. 63.5 percent of the surviving companies attended diversified markets which included their own States, other States and sometimes foreign markets. The remainder attended only local markets. The competitive strategies pursued by the majority of these enterprises were based on both tangible and intangible aspects of the products: quality, after-sales services, ready delivery, etc. That is to say that in Figueiredo's study the surviving companies, on the whole, attempted to vie with competitors by making unique and distinct offer to its market. Such a strategy was well reflected in the companies pricing methods. Most of the companies did not perceive the need to match market prices, being able to include in their products sales price a high profit margin. The surviving companies highly emphasised personal selling. About 45 percent of them had their own sales force which were formally organised and composed of experienced salesmen systematically hired and trained. A formal system of salesforce performance evaluation and control was evident.

The above findings are of some importance to the present research. Two criticisms can be, however, levelled at them. Firstly, as far as the marketing survey was concerned, there was no intention to relate these findings to the overall competitive environmental conditions of the companies, what is felt to be of fundamental importance in order to increase the knowledge on the effectiveness of the marketing and competitive strategies of small firms. Secondly, it is not known which competitive behaviour differed the surviving companies in this survey from the ones that had failed to survive. It is believed that the knowledge of competitive strategies of small firms can be substantially increased if the strategic differences among

successful and unsuccessful or less-successful companies are taken into consideration.

A more comprehensive view on small firm competitive strategy is presented by the results of investigations carried out in more developed countries.

By studying in detail three successful low-market share businesses Hamermesh et al. (1978) found that these companies' strategy shared four important elements which were thought to be responsible for the companies' outstanding performance. All three companies competed in a limited number of segments which were creatively selected. The companies channelled their R & D spending into specific and potentially high-benefit yielding areas, such as process improvement aimed at lowering costs. Also they emphasised profit and specialisation rather than sales or market growth and diversification and all had a "strong-willed" chief executive.

Although the authors are referring to businesses that may not be as small as those in reference in this thesis, it is interesting to note that they confirm the suggestion made by many academicians regarding the concentrated strategy. However, their findings are based upon in-depth analysis of only three companies and their recommendations are too broad to have any operational significance. Obviously, these findings need to be checked against a larger sample.

Further supportive evidence from Peterson and Lill (1981) also indicates the existence of a relationship between small firm strategy and performance. They have found that the salient marketing characteristics which distinguished the successful from the unsuccessful enterprises in their sample were those of consumer-oriented goals; clearly-defined marketing policies, goals and objectives; extensive offering of services; narrow, tightly defined target market; and extensive use of word-of-mouth promotion. This is, without doubt, an important but simplistic piece of research. It is important because it highlights the difference between successful and unsuccessful

small firms in terms of marketing strategies, thus providing grounds for a larger piece of research. Simplistic in its methodology, mainly that of data analysis, in which only an absolute comparison was undertaken. Moreover, it is a piece of research which has not considered any aspect of the companies' competitive environment.

A more sophisticated piece of research, carried out in Canada (Chaganti and Chaganti, 1983), provides more direct evidence on the distinctive marketing strategies adopted by profitable, less-profitable and unprofitable small firms. Some of the findings were:

- a) profitable firms considered their products' quality worse than, and manufacturing costs lower than, that of their competitors. On the other hand, unprofitable firms rated their products' quality as better and their manufacturing costs as higher than their rivals'.
- b) profitable firms concentrated on local markets whereas unprofitable firms tended to serve mostly regional and national markets;
- c) the profitable firms' breadth of product line was relatively broad whereas the losing companies offered a narrow line of products;
- d) the profitable firms frequently modified and renovated their products and the losing companies only occasionally did so;
- e) both the most profitable and the unprofitable firms offered mostly customised products.

In conclusion, Chaganti and Chaganti (1983) point out that the firms ability to identify a niche in the market place and to achieve a suitable balance between product quality and costs and its market concentration effort were some of the most important key features of profitable small firms. In addition the authors argue that profitability is determined by both

products offered and market served. The key to it is the balance between these two elements in any strategy.

It is worth mentioning that while some of Chaganti and Chaganti's findings confirm what the general, normative literature prescribe (local markets, niche strategy), others are, in fact, contradictory (low quality, broad product line). This reinforces the need for further research. In addition, it should be mentioned that there is still the need to address the question of environmental influence.

The relationship between competitive environment, competitive strategy and performance of small firms has been, to a certain extent, addressed by three significant pieces of research. Davig (1986) investigated the competitive behaviour and performance of small firms in some fragmented, slow-growth industries in the USA using the strategic categories of Miles and Snow. He found that small firms following prospector and defender strategies achieved the best performance. Defenders were characterised predominantly by a combination of focus on prices, on-line delivery and product quality. They developed a successful product which they tried to make the best of the market. Prospectors were characterised predominantly by a combination of focus on price competitiveness and product uniqueness. They continually searched for improvements to be made in current products, making them more competitive, and/or adding closely related products to the product-line. The loosing firms followed analyser and reactor strategies. Analysers attempted both strategies at the same time: continual improvement of standard products for current markets, as well as continual enlargement of their product-line and market scope. Lack of resources, obviously, prevented the success of such a strategy. Reactors had no strategy or plan but were characterised by emphasis on customer services, dependence on one customer and relatively large number of competitors

In this respect, Chaganti (1987) investigated the relationship between industry growth, small firms' strategies and performance. The author did find that industry growth

influence the strategic choice of small firms and that different growth environment required distinctly different competitive strategies in order to improve profitability. Specifically it was found that in growth environment the profitable strategy was characterised by manufacturing cost efficiency, market concentration and standardisation of products, low frequency of product innovation and low use of process patents. In maturity environment, competitive pricing (prices lower than competitors') aided profitability whereas in declining industry environment aggressive marketing strategies were needed. In the last environment, profitable companies emphasised promotion, had broader product mix than competitors and worked to maintain a high image of the firm.

Both the questions of environmental characteristics and distinction between successful and unsuccessful companies were also addressed by a study of competitive strategies of high-performing, low-market share businesses in the USA (Woo and Cooper, 1982). It was basically found that these high-performing businesses had a strategy focus very much tailored to environmental differences.

Specifically, it was found that the majority of high-performing, low-market share businesses concentrated in markets with both declining to low growth rates and with none to low levels of product and process change. This is very much contrary to the expectations for small firms since, given their flexibility, they are often expected to benefit from environmental changes. These businesses' markets were also characterised by standard products and low levels of auxiliary services when, in fact, small firms are often advised to attend markets in which competition is based on customised products and/or auxiliary services.

Whereas unsuccessful, low-market share business competed aggressively on many fronts (very similarly to successful, high-market share businesses), the high-performing, low-market share businesses had chosen particular bases of competition, such as product quality and price, limiting their expenditures

in other areas. Thus, high-performing, low-market share businesses operating in a market characterised by standardised products (industrial components and supplies) and infrequent product changes had a strategy focus based on low costs, low prices and high quality. Interestingly, successful, low-market share companies in a mature consumer durables and capital goods market had an aggressive marketing strategy whose emphasis was on sales force and services. Quality and competitive prices received less emphasis and the companies' product quality was considered lower than competitors'.

Generally speaking, these are very important investigations because they are a much needed step toward examining the relationship between competitive environment conditions, small firms competitive strategies and performance. These investigations provide surprising, unexpected findings, which are probably more realistic. In addition, some of these findings fall in contradiction with both the theory and previous findings. Their importance to the present research, however, is limited for the reasons stated in the paragraphs below.

Firstly, generalisation of most of these results cannot be done without caution. As Chaganti (1987) states, "strategic choice depends on a number of contingencies, growth environment being only one ... Valid strategic prescriptions can be developed only after taking into account the various contingencies."

Secondly, Woo and Cooper's sample comprised not only "free-standing" small firms, but also, and primarily, small divisions of large corporations. These divisions certainly benefit from the marketing, resources and knowledge of their parent companies. This fact hampers the generalisation of Woo and Cooper's findings to the small business sphere. In addition, the companies' competitive environment was not systematically analysed and, above all, the study was carried out in a very developed economy where conditions are certainly unlike those prevailing in a less-developed country.

3.3. Conclusions

The literature on competitive strategy of small firms is very limited. Most of it is normative and investigations into the actual competitive behaviour of small firms are difficult to be found. Further, most of these investigations have neglected the relationship between competitive environment, competitive strategy and performance what is believed to be of fundamental importance to identify successful competitive strategies and to develop strategy prescriptions for small firms. In general, current investigations have tended to treat the small firms as a homogeneous sector of the economy, not allowing for many contingencies upon which strategic choice depends. The few investigations which have taken into consideration the above mentioned relationship have led to surprising results which most probably are closer to reality. The theoretical foundation of this relationship, which has been widely supported by studies of large firms, is considered in detail in the next chapter.

Table 3.1 summarises the factors of success as predicted by current theory and as identified empirically. It can be seen that most of the recommendations are so broad as to have limited operational value. In addition, existing research offers conflicting views about how small firms should compete. The reason may well be that there are conditions which mitigate against the favourable impact of certain factors on small firms performance. This implies that further research is needed to clarify these issues.

TABLE 3.1: SMALL FIRMS SUCCESS FACTORS - THE CURRENT WISDOM

THEORY RECOMMENDATIONS	CONFIRMED BY	NOT CONFIRMED BY
Segmented, concentrated, niche strategy (Finley, 1980; Kotler, 1980; Brown, 1985; Perry, 1987; others)	Richers et al. 1967; Hamermesh et al. 1978; Chaganti, 1987 (In certain environment only)	
Local, non-mass, limited markets (Richers et al. 1967; Davies & Kelly, 1972; Mathes, 1979; Cezario, 1979).	Ceag-RS, 1977; Cezario, 1979; Peterson & Lill, 1981; Chaganti & Chaganti, 1983; Hamermesh et al. 1978; Woo & Cooper, 1982	Figueiredo, 1979 Dutra et al. 1986
Specialised, narrow product line (Woodward, 1976; Brannen, 1978; Kotler, 1980; Franklin & Franklin, 1982; Brown, 1985)	Richers et al. 1967; Woo & Cooper, 1982 (In certain environment); Hamermesh, 1978.	Ceag-RJ (U/d) Chaganti & Chaganti, 1983 Chaganti, 1987
Unique, distinctive, differentiated products / customised products (Allen, 1973; Brannen, 1978; Franklin & Franklin, 1982)	Richers et al. 1967 Figueiredo, 1979	Chaganti & Chaganti, 1983 Woo & Cooper, 1982
High level of services (Brannen, 1978)	Peterson & Lill, 1981;	Woo & Cooper, 1982
High Quality of products (Brannen, 1978)	Ceag-RS, 1977; Ceag-SE, 1979; Cezario, 1979; Woo & Cooper, 1982 (In certain environments)	Chaganti & Chaganti, 1983 Woo & Cooper, 1982 (In other environment)
Market and product development strategies (Perry, 1987)		Figueiredo, 1979 (Only partially)
Competition on the basis of product characteristics and not on prices (Richers et al. 1967; Mureau, 1980)	Figueiredo, 1979	Ceag-RJ (u/d) (Partially)
Lower prices (Brannen, 1978)	Chaganti, 1987 (In certain environment only) Woo & Cooper, 1982 (In certain environment only)	Figueiredo, 1979 Woo & Cooper, 1982 (In other environment)
Built up of high corporate image (Manzer et al. 1980; Stancil, 1984)	Chaganti, 1987 (In certain environment only)	
High Personal selling and low advertising (Brannen, 1978)	Figueiredo, 1979 (partially) Woo & Cooper, 1982 (In certain environment)	Chaganti, 1987

OTHER MAJOR FINDINGS

Consumer-oriented goals and clearly-defined market objectives	Peterson & Lill, 1981
High, frequent product change and innovation	Figueiredo, 1979 Chaganti & Chaganti, 1983
Low product change and innovation	Woo & Cooper, 1982 Chaganti, 1987
Relatively lower costs	Chaganti & Chaganti, 1983 Woo & Cooper, 1982 (certain environments) Chaganti, 1987 (certain environment)
Relatively higher costs	Woo & Cooper, 1982 (other environments)
Competitive emphasis according to environment	Woo & Cooper, 1982 Chaganti, 1987

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CHAPTER IV

RESEARCH CONCEPTUAL FRAMEWORK AND HYPOTHESES

The previous chapter has clearly demonstrated the paucity of research in small business competitive strategy. The prescription on both the general strategies and the contents of them, with few exceptions, indicate a belief that there exist some strategies which are optimal for all small businesses no matter what environmental circumstances they face. Certainly such an assumption is wholly inconsistent with all findings of studies on competitive strategies in general to date (Hofer, 1975; Harrigan, 1980; Thiergart and Vivas, 1984; Silva, 1985; Prescott, 1986, among others) which all call for a contingency based approach. Hofer (1975), based on a review of the literature dealing with the content of business and corporate strategies, pointed to a great number of contingency variables which were summarised as environmental variables, organisational characteristics and resources.

Chapter I of this thesis has pointed to some methodological requirements of studies about small firms competitive strategy. This led to the need to take into account both the competitive environment as an influence on competitive strategy effectiveness, and the small firms performance as a means to evaluate the adequacy and effectiveness of the adopted strategy. These key points are further elaborated in this chapter with a twofold view: first, to build the thesis conceptual framework, second, to formulate the central hypotheses of the present research effort.

4.1. The Competitive Environment-Strategy-Performance Relationship.

The conceptual approach of this thesis follows the environment-strategy-performance paradigm. This paradigm draws

heavily from economic and management theories and its importance is revealed by four major streams of research. These research streams all focus on this paradigm but have approached it from different perspective.

Organisation adaptation theory

One of these four streams concerns the organisation adaptation theories, which have led to the development of several strategic tipologies of firms in terms of their corporate strategy (Etzioni, 1961; Blau and Scott, 1962; Chandler, 1962; Ansoff, 1965; Burns and Stalker, 1961; Miles and Snow, 1978; Chicha and Julien, 1979). It is maintained that in order to survive and prosper, every organisation needs to develop and sustain an acceptable alignment with its environment. Strategy is the mechanism that guides environmental alignment and provides integration of internal operations (Snow and Hambrick, 1980: 527).

To explain the environment-organisation (strategy) coalignment process various approaches have been put forward. Traditional organisation theories tend to view the environment as a causal, deterministic influence to which organisations adapt their strategies, structures, and processes. Organisational performance is regarded as dependent upon the efficient and effective adaptation of organisational characteristics to environmental contingencies. This attitude is reflected particularly in landmark empirical research such as Burns and Stalker (1961) and Lawrence and Lorsch (1967). The coalignment would be achieved through a "natural selection process" by which a group of organisation, some by chance alone, would develop characteristics more compatible with the environmental conditions than their counterparts. These would either emulate important aspects of these characteristics or cease to operate (Miles and Snow, 1978:19, summarising Aldrian 1960).

Recent developments in organisation theories have lead to a less rigid and deterministic view, reconceptualising the

relationship between the organisation and its environment. The new view challenges the position that organisations are or need to be passive-reactive entities with respect to the external environment, arguing that organisations can and do implement a variety of strategies designed to modify existing environmental conditions. Although these developments acknowledge the impact of broad internal and external contingencies, they maintain that organisations can become pro-active agents of change by attempting to manage their external environments (Zeithaml and Zeithaml, 1984: 48).

In this respect, in the words of Miles and Snow (1978:20), the most accurate way of conceptualising the process of coalignment with the environment is the "strategic choice" approach developed by Child (1972). Briefly, this approach argues that the organisation's strategy and structure are only partially determined by environmental conditions. Heavy emphasis is placed on the role of top decision makers who are viewed in a position of not only to adjust organisation structure and process when necessary but also to attempt to manipulate the environment itself in order to bring it into conformity with what the organisation is already doing. The strategic-choice approach essentially argues that the effectiveness of organisational adaptation hinges on the dominant coalition's perceptions of environmental conditions and the decisions it makes concerning how the organisation will cope with these conditions.

Within that approach of strategic choice, Miles and Snow (1978) propose the adaptative cycle. The organisation would promote its adaptation to the environment through a continual series of decisions concerning solving entrepreneurial (domain definition), engineering (technology), and administrative problems (structure-process and innovation). Every organisation chooses its own strategy (domains decisions: target market, and product or services) for responding to changes in the environment that is enacted by the organisation, and then decides on the appropriate technology, structure and process to support the strategy. Competing firms within an industry

exhibit patterns of behaviour representative of four basic strategic types. These types, which have been widely mentioned in the literature, are the Defender, Prospector, Analyzer and Reactor types.

Snow and Hrebiniak (1980) provide empirical support to the 4 strategic types of Miles and Snow (1978). Their findings elicit that substantially different types of organisational strategies and distinctive competence can occur contemporaneously in the same industry environment. This supports the argument that in a particular industry several strategies are potentially feasible, but, in order to achieve high performance, each strategy must be supported with appropriate distinctive competences (Snow and Hrebiniak, 1980:317)

Regardless of which process of interaction with the environment is being adopted, a common thread between them is that strategy is the mechanism of interaction upon which performance is dependent.

Industrial organisation

The other streams of research employing the paradigm of competitive environment-strategy-performance are the related field of industrial organisation, strategic management and planning, and marketing.

The industrial organisation literature addresses the influence of the external environment on the conduct (strategy) and performance of firms. Scholars in this field have suggested that industry characteristics such as level of concentration, barriers to entry and degree of product differentiation, among many others, affect the conduct or strategy of firms in such matters as pricing policies, R & D emphasis, investment and advertising policies, among others. In turn, the firms performance is dependent on strategy (Porters, 1981, 1982; Dominguez and VanMarcke, 1985; Prescott, 1986).

Such a traditional view has been criticised for its

determinism, its focus on the industry as the unit of analysis and its inability to recognise strategic differences among firms in an industry. (Day and Wensley, 1983). Certainly in many industries there are firms that have adopted very different competitive strategies and have achieved differing levels of performance (Porter 1979b:214; 1980:126). These limitations have prevented the industrial organisation theory to be widely employed by other related fields (Porter 1981).

More recent developments in this area have progressed toward overcoming these limitations (Day and Wensley, 1983:84). Of particular importance is the broadening of the research focus to include the firm within the industry with the notion that industries can be broken into strategic groups of firms that all follow the same strategy, such as full line national brand versus narrow line specialist, and consequently have similar reactions to environmental conditions (Caves and Porter, 1977; Porter, 1979b, 1980). Since strategic groups reflect different approaches to competing in the same environment, some similarities of strategy will occur. An industry can thus be viewed as composed of clusters of firms, where each group consists of firms following similar strategies in terms of key decision variables. Such a group could consist of a single firm or could encompass all the firms in the industry (Porter 1979b:215).

A second important development concerns Porter's conceptualisation of the competitive environment. Porter (1979, 1980) has contended that the process of coping with the competitive environment is the "essence of strategy formulation". The competitive environment and the state of competition are given by the collective strength of five basic forces called threat of new entrants, threat of substitute products/services, bargaining power of buyers, bargaining power of suppliers, and rivalry among existing firms. According to Porter's framework, the nature of competition will differ fundamentally from industry to industry as the collective strength of these forces differs, and 3 generic competitive strategies exist that can be adapted to a firms' particular

situation to cope with the competitive forces and outperform competitors. Porter's competitive environment conceptualisation is further addressed in the following section of this chapter.

Extending Porter's competitive environment concept, Silva (1988) has postulated that certain industries have their own competitive strategies, i.e., strategies which are inherent to the industries evolving from the industries's market structure and that, to a certain extent, are not dependent to the company's explicit objectives. Hence, he continues, the competitive strategies of firms operating in such industries will have to be necessarily tuned to the inherent strategies. He groups the industries according to their degree of concentration and differentiation of products into competitive, concentrated-homogeneous, differentiated, concentrated-differentiated, and "semi-concentrated" industries. For each of them the author presents the characteristics of the inherent competitive strategies.

Other developments in the industrial organisation field have led to the recognition of feedback effects of firm strategy on market structure and of past performance on strategy choice (Porter 1980, 1981: 615-6). For example, firms innovations can enhance or diminish entry and mobility barriers, increase or reduce switching costs (changing customers' brand loyalty), etc, thus changing the structure of their competitive environment in their favour.

Clearly, the industrial organisation field attests that the type of competitive environment is influencing on competitive strategy choice and effectiveness.

Strategic Management

The relationship between environment, strategy and performance of a business is also a central concern of strategic management (Prescott, 1986), where strategy is the relating of a company to its environment (Porter, 1982;

Sharplin, 1985). In fact, it is maintained that for a given business, performance is dependent both on the product, market and industry characteristics that determine its competitive environment and on its competitive strategy (Woo and Cooper, 1982). In other words, "the choice of strategies and their impact on the performance of the firm are dependent on environmental condition, especially the characteristics of the respective markets or industries" (Bamberger, 1981:28).

Unlike the previous mentioned field of studies, the strategic management and planning field has traditionally emphasised a pro-active management approach to the environment-strategy-performance trilogy (Bourgeois, 1980). Up until recently, research in this field has been concerned with formulating strategy which would link the company's strengths to environmental opportunities (Ansoff, 1965; Cannon, 1968; Ackoff, 1970, Katz, 1970; Ackoff and others, 1976).

Recently, much of the research in this area has been on identifying strategies or set of strategies that are successful in particular competitive environments. The Profit Impact of Market Strategy (PIMS) studies have found that the impact of strategies on the business performance depends on market conditions or industry characteristics (Buzzell et al., 1973; Schoeffler et al., 1974; Bamberger, 1981). Other studies, summarised by Prescott (1986:330-1) have indicated that industry characteristics determine certain factors critical for the success of business strategies. Prescott (1986) found that environment as defined by a number of market structure characteristics, moderated the relationship between strategy and performance in the sense that the set of strategy variables that significantly related to performance varied across subenvironments. Many others are of the opinion that structural dimensions of the market will influence the strategies chosen by the companies (Gripsrud and Grønhaug, 1985). In the area of small firms, as seen in chapter III, Chaganti and Chaganti (1983) found clear relationship between small firms strategy variables and performance levels; Chaganti (1987) found evidence for the relationship among industry growth, strategy

choice and performance of small firms; and Woo and Cooper (1982) found that the competitive strategy of successful low-market-share business differed substantially from that of unsuccessful low-market-share business and that successful competitive strategies differed in different competitive environments.

Marketing

Marketing has been traditionally concerned with linking the organisation to its environment through the development and discharging of appropriate marketing strategies (McDaniel and Kolari, 1987). Marketing intelligence is gathered to analyse and monitor the company's competitive environment and predict the impact of developments in that environment on organisational goals and performance in order to design strategy to optimise the relationship between the environment and the organisation (Zeithaml and Zeithaml, 1984).

Very frequently, marketing strategy has been seen as a mechanism to simply adapt the organisation to environmental constraints. In other words, the marketing manager is in the position to analyse the forces operating in the environment and implement organisational or strategic changes to adapt to environmental demands. However, marketing can play a more dynamic role in the environment-strategy-performance relationship. It is suggested that marketing strategies can be implemented to change the context in which the organisation operates, both in terms of constraints on the marketing function and limits on the organisation as a whole (Zeithaml and Zeithaml, 1984). These authors present a framework of environmental management strategies that an organisation can use to create change in its competitive environment.

Recent developments in marketing (Oxenfeldt and Moore, 1978; Day and Wensley, 1983; Weitz, 1985) have called for a broadening of the marketing concept from the traditional customer orientation to competitor orientation. The argument is

that there is an immense need to pay attention to competitive forces since "the effectiveness of marketing strategies usually depends on the reaction of both customers and competitors" (Weitz, 1985: 229) and since "the benefits of marketing exchange depend on the ability of each prospective supplier to create a competitive advantage over all other competitors" (Day and Wensley, 1983: 82).

4.2. Competitive Environment.

The literature on small firms lacks a systematic model of analysing the competitive environment of a small firm. Hence, this has to be derived from the large firm literature.

The four major streams of research employing the paradigm environment-strategy-performance have different approaches toward defining the firm's competitive environment. In the traditional industrial organisation the competitive environment was defined in terms of the relatively stable economic and technical dimensions of an industry that provided the context in which competition occurred. These included industry structure elements such as, concentration degree, product differentiation, barriers to entry of new firms, the growth rate of market demands, among others (Porter, 1982: 189; Baker, 1986:32). According to Porter (1982) these elements were too few to represent the richness of factors affecting competition in actual markets and industries and so the competitive environment could only be partially assessed.

From a review of the strategic planning area and its major tools (concepts) to strategy formulation, Porter (1982) has concluded that competitive environment has been usually assessed on the basis of one or few aspects of market structure. When a large number of aspects are considered, these are not tied together by a model of competition (Porter, 1982:188). For instance, Woo and Cooper (1981, 1982)

characterise the competitive environment along 13 market structure elements such as nature of product, degree of product standardisation, importance of auxiliary services, stage of product life cycle, industry value added, industry concentration, number of competitors, etc. In the case of the PIMS project, the number of environment aspects considered has been large but there has been no model of competition tying them together.

In the marketing area a firm's competitive environment has traditionally been viewed as comprising firms competing in the same market (O'Shaughnessy, 1984). Competition is, then,

"The process by which independent sellers vie with each other for customers in a market. ... The degree of similarity in needs satisfied and methods used to satisfy those needs determines the degree to which firm and brands compete against each other"
(Weitz, 1985: 229).

The above definition places a restricted limit on competition and implies that the competitive environment boundaries are narrowly defined. It also implies that consideration is placed only on producers/sellers of highly substitutable goods/brands or products catering for the same need, as agents of competition. These definitions and the corresponding competitive environment boundaries implication are appropriate in the case of decision making about tactical marketing mix for a particular product or brand. In contrast, decisions on long-term strategies or method of competition will call for a broader definition of the competitive environment. In this way, customers and competitors, competitive opportunities and threats can be properly identified (Weitz, 1985: 230).

Porter (1979, 1980) has developed what has been called "the most comprehensive treatment of industry influences on firm's strategies and performance levels" (Prescott, 1986: 331) and a contribution of fundamental importance to the strategy field (Silva 1988: 33). It is a framework for analysing the nature of competition faced by a firm in its broadest sense,

which, as argued, helps to overcome the limitations of other areas in assessing the competitive environment (Porter 1982: 185-8; Silva 1988:33).

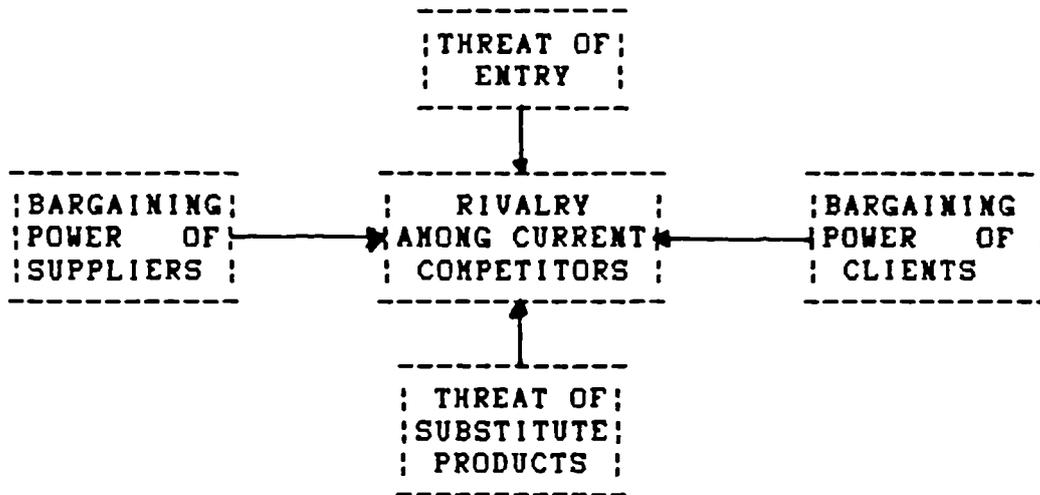
According to Porter (1979, 1980), the state of competition in its broadest sense, which he terms extended rivalry, depends fundamentally on five competitive forces, which are the key structural features of the industry. These forces are threat of entry, threat of substitution, bargaining power of suppliers, bargaining power of clients, and rivalry among current competitors and they are pictured in exhibit 4.1. They arise from the key structural economic and technical characteristics of the market and collectively determine the intensity of competition. Different forces take on prominence in shaping competition in each industry/market and the strongest force or forces are governing and become crucial from the point of view of strategy formulation. The stronger the forces, the more intense the competition in a market. The more intense the competition, the lesser the profitability of firms in that market. Each firm will have unique strengths and weaknesses in dealing with these forces and the structural characteristics given rise to these forces do shift gradually over time. Yet, as Porter argues, understanding market/industry structure must be the starting point for strategic analysis. The characteristics of each force are discussed in the following paragraphs.

Threat of entry can affect competition to the extent that new entrants into the market bring new capacity, additional resources and the desire to gain market share. In their fight for market share, prices can be bid down and lead to reduced profitability. The seriousness of the threat of entry will depend on the barriers to entry that are present in the market structure and on the existing competitors expected reaction. According to Porter (1979, 1980) there are six major sources of barriers to entry vis economies to scale, product differentiation, capital requirements, cost disadvantages independent of size and government policy. If barriers are high the competitive force of threat of entry will not be serious

(Porter, 1980:7-13).

Substitute products or services are those that can perform the same function as the company's products or services. They are an important force shaping competition because they limit the industry's potential return by placing a ceiling on the

Exhibit 4.1: The 5 competitive forces diagram.



prices the firms can profitably charge. The similar the function performed by the substitute products or services and the better their relative price-performance position, the greater the competitive pressure faced by a company (Porter, 1979:142; 1980:23).

Both suppliers and clients can influence competition to the extent that they have bargaining power over their clients and suppliers, respectively. Clients can force down prices, bargain for better quality and more services and put a competitor against another. Suppliers can threat to increase price, decrease quality of their products or services, influence clients' volume of purchase and advertising campaign. The amount of bargaining power is dependent on a number of elements such as industry concentration, product differentiation, substitute products, switching costs, normal volume of purchase, importance of the client to the suppliers'

revenue and importance of the suppliers' product to the clients' production (Porter, 1979:140-41; 1980:24-29).

The fifth force as appointed by Porter is termed intensity of rivalry among existing competitors. It refers to those actions by competitors intending to improve their relative position in a market. These actions can take the form of price competition, advertising battles, product introduction and innovation, increased customer services, etc. In most markets firms are mutually dependent in that a competitive move by a competitor might cause retaliation by other competitors. Rivalry, then, implies action and reaction by the competitors. The intensity of the rivalry in a market is dependent on a number of interacting structural factors. These are, for instance, the number and balance of existing competitors (in terms of size and perceived resources), level of industry growth, fixed/storage costs, level of differentiation, switching costs, diversity of competitors, etc.

Porter's competitive forces just described represent the nature of competition in a market and the characterisation of the competitive environment of a company. While primarily dedicated to large organisations, Porter's competitive environment framework presents a reasonable tool for the study of competitive strategy of small firms. The applicability of this framework to small firms has been verified, to a certain extent, in prior research, although in developed countries (Horne et al., undated; Watkin, 1986). Moreover, the literature does provide grounds to the adoption of Porter's framework in small business research. This point is developed in the following paragraphs.

Horne et al (undated) and Rattner (1984) have pointed to the need to develop an understanding of small firms within their competitive process. Rattner proposes that the small firms development or, at the very least, survival, will depend on the relationship between them and the large companies. He argues that this relationship will vary according to the nature of the competitive environment and that there would exist at

least three generic forms of relationship.

Within the competitive oligopolies, the small firm are in a condition of indirect dependence to large companies given that their chance of survival/development would be limited "basically by the market growth rate and by the pace of large companies expansion. The small firms could only expand to the extent that the growth rate of large companies does not surpass the market growth rate" (Rattner, 1984). The second form of relationship is held within concentrated oligopolies where the small firms are "concentrated in opposition to the large companies" but their development is only possible if they find certain markets which are not in the interest of large companies and do not interfere with their process of expansion. Such a strategy can be denominated a concentrated, segmented strategy. The last form of relationship as suggested by Rattner is developed within the differentiated oligopolies. "The small firms's development would depend on their level of integration with the large companies". The development process of those small firms which are complementary or subordinated to the large companies through their production process as suppliers of parts and components would be dependent to but also guaranteed by the large companies. Those small firms which are not integrated into such a scheme would have to look for ways of their own to develop and/or survive. Rattner concludes that for those small firms, survival would be a difficult aim to achieve.

Certainly the relationship between small firms and large companies will account for significant differences in the competitive environment of small businesses, viz whether the small firms compete with large companies or are in markets where the presence of these companies is minimized. Other crucial aspect of the relationship between these two types of companies, which can be sources of problems for small firms and hence constraints in their strategic options, are the roles large companies play as clients of, and suppliers to, small firms and their bargaining power. In this regard, an illustrative situation is the case where a large company is the

only client of many smaller companies, situation easily found in textile. Porter's competitive framework would certainly allow these features to be taken into consideration. For this and other reasons Porter's competitive forces framework is adopted in this study as a guideline to the assessment of the small firms competitive environment.

4.3. Competitive Strategy: Concept and Dimensions

In general, a company is said to have two levels of strategy: the corporate strategy, at the company level and the business strategy, at the business level (Porter 1980, 1987; Chaganti, 1987; Woo and Cooper, 1981, 1982). Some authors consider that the company has a third level of strategy, that of the functional strategies (Bamberger, 1981). An understanding of these differing levels of strategy is important to the positioning of the competitive strategy into this hierarchy.

Corporate strategy, for the diversifying company, concerns the determination of the company's different global product/market combinations or strategic domains, and its distinctive competences, that is, the composition of the firm's strategic portfolio (Bamberger, 1981). It is primarily formulated to accomplish the organisation's mission and concerns the questions: what are the purposes of the organisation? What image should the organisation project? What is the organisation's business or businesses? (Sharplin 1985). The corporate strategy defines the company's competitive arena (Bourgeois, 1980).

Business Strategy refers to decisions made with respect to a particular product/market combination (Bamberger, 1981). It concerns, and is focused on, the company's effort to compete effectively in a certain product/market segment and to contribute to the company's overall purposes (Sharplin, 1985; Hambrick, 1980).

A third level of strategy is that of functional strategies. These concerns "global patterns of behaviour with regards to the different functional areas of the firm as production, marketing, finance, R&D or personal. This function is the deployment and use of resources. They may be defined with regard to one, several or all strategic domains of the firm" (Bamberger, 1981: 5). These strategies are usually studied together with business strategies (Bamberger, 1981; Hambrick, 1980).

Competitive strategy is often positioned at the business level. Porter (1980, 1987) states that, for the diversifying company, competitive strategy concerns how to create competitive advantage in each of the business in which a company competes. Woo and Cooper (1981, 1982) support this view noting that competitive strategy is a business level indication of how a company competes. It is aimed at positioning the business in the market in relation to competition, includes emphasis given to various functional activities and reflects resource allocation priorities.

According to Porter (1980), a competitive strategy has to make it possible for a company to find a strategic competitive position where it can best defend itself against the competitive forces or can influence them in its favour (Porter, 1980:4). This can involve three broad approaches:

- a. Positioning the firm so that its capabilities provide the best defence against the existing array of competitive forces;
- b. Influencing the balance of forces through strategic moves, thereby improving the firm's relative position;
- c. anticipating the factors underlying the forces and responding to them, thereby exploiting change by choosing a strategy appropriate to the new competitive balance before rivals recognise it.

Thus, competitive strategy is how a company anticipates,

adapts and/or tries to change its competitive environment in order to improve its competitive position. In other words, a competitive strategy is how a company attempts to compete in its environment.

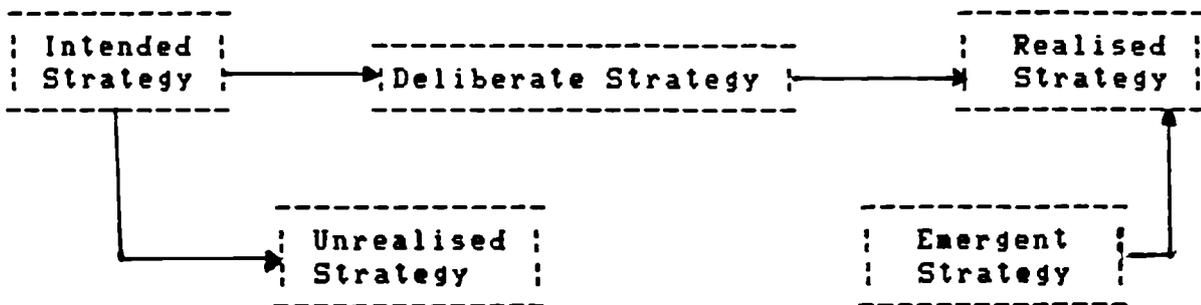
4.3.1 Competitive Strategy of Small Firms

The foregoing definitions, as mentioned, all refer to the diversified corporation, that is, a company which competes in more than one product-market domain. In this case the business level normally would correspond to the divisional level of the corporation. For a single product-line company, or a company that competes in one product/market domain, as argued by Hofer (1975), the business and corporate levels would be the same. Since most small firms and certainly the ones pertaining to the present study, compete in one product-market only, a distinction between corporate strategy and business strategy is not made. The way the small firms operate and compete in their domain is, then, regarded as their competitive strategy.

The foregoing definitions also imply that competitive strategy is developed consciously, formally and purposefully, and designed in advance of the specific decisions to which it applies. Although this may be true in many instances, researcher and scholars have argued that small firms lack a formal process of strategy formulation. Thus, these definitions would not apply to the small firm sphere. However, Mintzberg (1978) has argued that not all strategies are premeditated or intended in that there are also strategies which emerge unintentionally as the strategy-maker makes his decisions one by one. Intended strategies are 'a priori' guidelines to the company's decisions and actions in the future. Emergent strategies are only visible 'ex post facto' as a consistent pattern in a sequence of decisions over time. Mintzberg has provided a useful framework for conceptualising strategy, diagrammed in exhibit 4.2, whose strategy types are:

- a. Intended strategies that get realised, which he termed deliberate strategies.
- b. Intended strategies that do not get realised, perhaps due to unrealistic expectations, misjudgments about the environment or changes in either during implementation. These are called unrealised strategies.
- c. Realised strategies that were never intended, perhaps because no strategy was intended at the outset or perhaps because, as in 2, those that were got displaced along the way. These are called emergent strategies.

Exhibit 4.2: Types of Strategies



Source: Mintzberg, 1978: 945.

Therefore, in order to include both intended and emergent strategies in theoretical conceptualisation, Mintzberg (1978), Miles and Snow (1978), and Snow and Hambrick (1980) have suggested that strategy should be viewed as "a pattern in a stream of decisions", that is, a pattern in the company's important decisions and action. Defining strategy in this manner makes the study of small firms competitive strategy meaningful. And small firms competitive strategy is defined as a pattern in the company's decision related to its market positioning.

4.3.2. The Dimensions of Competitive Strategy

A number of generic competitive strategies has been suggested in the literature. These include from the classic

four categories as devised by Ansoff (1965) of market penetration, market development, product development and diversification to sophistication of this typology (O'Shaughnessy, 1984) and to many others such as differentiation, niche and turnaround (O'Neil and Duker, 1986). Other labels include innovator versus follower strategies, growth versus no-growth strategies, survival strategies and so on (Davig, 1986). O'Shaughnessy (1984) and Cannon (1968) provide a comprehensive typology of generic competitive strategies.

In the context of the five competitive forces, Porter (1980, 1985) identifies three generic competitive strategies. Cost leadership is the generic strategy pursued by a firm that aims to be the low-cost producer in an industry. This strategy entails tight cost and overhead control in any area and is associated with economies of scale, experience curve and high market share.

Differentiation is the second generic strategy as suggested by Porter. It entails differentiating the product or service offering of the firm in terms of characteristics highly valued by the markets. The firms aim to create a position of uniqueness in the industry.

The third competitive strategy is focusing on a narrow competitive scope. It entails serving a particular target market very well, better than competitors, to the exclusion of other markets. This strategy can be built around cost leadership (cost focus) or differentiation from better meeting the needs of this target, or both.

While these generic strategies do describe the variety in strategic choice available for large organisations, they are too general and less useful for small organisations (O'Neil and Duker, 1986: 30-1). A more fruitful approach to the study of small firms competitive strategy is to divide strategy into its elementary components. O'Neil and Duker (1986:31) contend that functional resource deployment can be seen as a surrogate for

strategy in which case strategy is described as the sum total of its functional allocation. Other researchers into small firms strategy and the PIMS studies have adopted this perspective (Woo and Cooper, 1981; Chaganti & Chaganti, Chaganti, 1987; Gripsrud & GrOnhaug, 1985; Buzzel et al., 1973; Dominguez and Van Marcke, 1985) and Porter (1980) maintains that certain strategic dimensions can capture the possible differences among firms' competitive strategies.

A number of competitive strategy dimensions have been suggested and investigated by a number of researchers. Porter suggests a listing of 13 such dimensions (Porter, 1980: 127-9), some of them would hardly apply to a small company, such as, vertical integration, degree of technological leadership. In the PIMS project, competitive strategy is represented by 37 dimensions among which are total marketing expenditures, product quality, product differentiation, pricing, R&D expenditure and market share. One rational way of looking into these dimensions is to approach them from the marketing concept of the "4 Ps" perspective - product, price, promotion and place. As Sharplin (1985) points out, "competitive strategy from the point of view of marketing concerns the 4 Ps which provide a powerful way of relating the organisation to its environment".

The competitive strategy dimensions related to product

Product considerations enter into all major company decisions. For instance, the decision on what products to produce affects the company's decision on investment in the facilities needed to make and market products. It will also affect the decisions concerning recruitment and training of staff people that will deal with the selected set of products. In the words of O'Shaughnessy (1984:158), it is for such reasons that Ansoff (1965) makes product policy the major strategic focus for the firm and regards finance, personnel and production strategies as emanating from the basic product strategy.

From a strategic point of view, the products should be described from the standing point of what it will do for the purchaser and how effectively and efficiently it can be produced. The obvious objective is to produce the maximum perceived value for the customer at the lowest cost in terms of resource inputs. It is perceived value which determines what the customer will pay for a product or how aggressively the customer will seek the product at a given price. (Sharplin, 1985:87).

There are essentially two approaches to increasing the value provided to the customer: (1) develop new products and (2) improve the perceived value of existing ones. New product may be created through R & D and through market research to discover new needs. The perceived value of a product can be improved through improvements in quality, company's image, level of services (Sharplin, 1985:87).

In respect of product the following are the competitive strategy dimensions most stressed in the literature:

- a. Level of quality in product or service (O'Neil and Duker, 1986; Chaganti, 1987; Gripsrud and Gronhaug, 1985; Woo and Cooper, 1981; Porter, 1980; Davig, 1986).
- b. Level of services and post-sale service (O'Neil and Duker, 1986; Gripsrud and Gronhaug, 1985; Peterson and Lill, 1981; Davig, 1986).
- c. Specialisation of products (Bamberger, 1981; Chaganti, 1987; Gripsrud and Gronhaug, 1985; Woo and Cooper, 1981; Porter, 1980).
- d. Level of customization (Richers et al., 1967; Rattner et al., 1967; Bamberger, 1981).
- e. Product innovation, emphasis on new product (Chaganti, 1987; Woo and Cooper, 1981).
- f. Product differentiation (Davig, 1986).
- g. Product identification: through branding, packaging or service (Porter, 1980; Bamberger, 1981).

Competitive strategy dimensions related to price

Price is the primary marketing weapon in strategy

formulation. Its importance is immense because it can convey to customers the ideas of product quality and product and company's image which are other powerful competitive weapons. Clients are encouraged to buy a given product by these elements together, not by price alone. Thus, the choice of price and price policy should complement the company's policies on quality and image. (Sharplin, 1985: 88).

The setting of price for an individual customer or even for an individual product may not be a strategic matter. However, the company's overall approach to pricing its products and services is strategic. There are essentially four approaches to pricing policy: cost-based pricing, skim pricing, competitive pricing, and penetration pricing each of which will be demanded in certain circumstances and will require different arrangements (Sharplin, 1985).

The competitive strategy dimension related to price is basically the relative price position of the company (Porter, 1980; Woo and Cooper, 1981; Chaganti, 1987; Bamberger, 1981; Gripsrud and Gronhaug, 1985; Davig, 1986).

Competitive strategy dimensions related to promotion

Promotion is another strategic dimension whose usual objective is to improve the price/quality trade-off from the company's standpoint or to increase the sales volume. Promotion can also be used to advise customers about product just to increase its usefulness.

The competitive strategy dimensions related to promotion are the company's emphasis on advertising, personal selling or word of mouth (Woo and Cooper, 1981; Sharplin, 1985), the level of marketing expenditure in that respect (Chaganti, 1987) and the choice of media (Bamberger, 1981).

Competitive strategy dimensions related to place

Place refers to any and all efforts the company undertakes

to give "place utility" to its product or service. Place utility is the usefulness a product or service has because it is available at a certain place (Sharplin, 1985: 92).

From a strategic standpoint, place refers not only to where the product or service is to be distributed, but also how. This includes identification of the appropriate distribution channel as well as the means of compensating and controlling the channel members. According to Porter (1980: 127), it refers to the selection of distribution channels ranging from company-owned channels to specialty outlets to broad-line outlets. Among the choices, according to Sharplin (1985:92) are:

- a. distributing through company-owned channels and sales outlet,
- b. selling through franchised outlets,
- c. using the services of manufacturers' agents to market the product through specialised or nonspecialised wholesalers and/or retailers,
- d. using the company's own sales force to distribute the product directly to end users or through specialised or nonspecialised wholesalers and/or retailers, and
- e. distributing through mail or parcel delivery services on the basis of order from catalogs or coupon ads placed in the mass media.

Other dimensions of competitive strategy

Besides all these dimensions some authors also include the geographic coverage or market scope (Chaganti, 1987, Bamberger, 1981), in terms of: nature of the markets, number of markets, similarity of markets.

4.4. Conclusions and Research Hypotheses

The discussion carried out in the first section of this chapter on the four major research streams has provided

substantial support to the relationship between competitive environment, competitive strategy and performance. This thesis adopts this paradigm as a tool in the investigation of successful competitive strategy for small firms. In this case the relationship is characterised by a number of aspects which are considered in the following paragraphs.

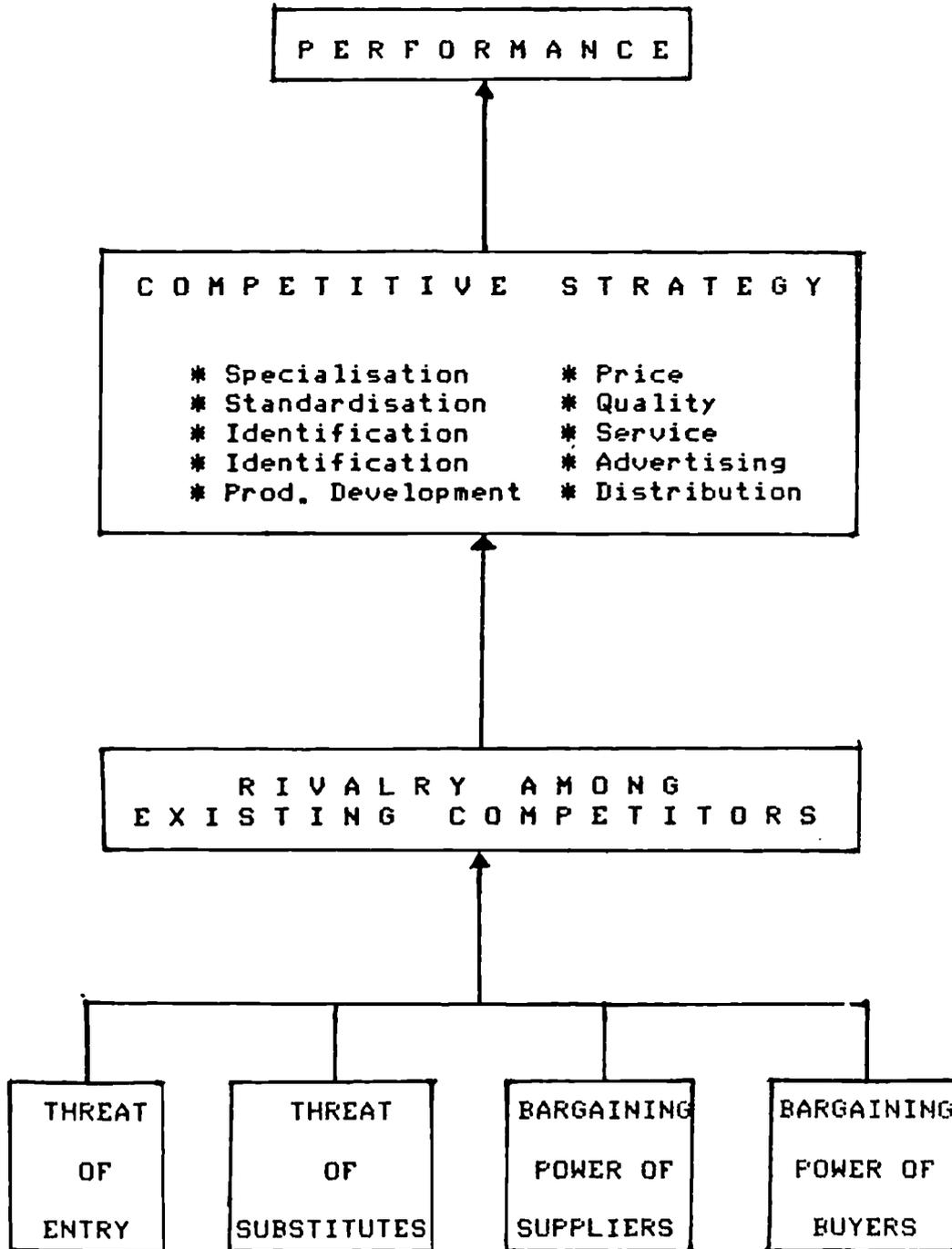
Traditionally, the reviewed research streams have regarded the relationship between environment, strategy and performance as causal and deterministic. Environment, as the causal variable, determined strategy and hence performance. Recent development in all these research streams have led to the proposition that this relationship is not entirely deterministic. The existence of feedback loops between strategy and environment and between past performance and strategy has been recognised. Top decision makers, through their choice, are in the position of influencing and managing the environment in their company's favour.

In the case of small firms, a feedback loop between competitive strategy and competitive environment is not expected to exist, since it is not expected that a small firm would undergo much pro-active behaviour in its markets. A small company, as defined in this thesis, will not have the necessary amount of resource and political power to exert such an influence and in this case the traditional view of the paradigm is believed to be more applicable.

Owner-managers and owner-managers' values, as the top decision makers of small firms, would certainly play an important role in the process of strategy choice of small firms. This thesis is solely concerned with the effectiveness or otherwise of the implemented strategy. Regardless of which process is carried out to choose the strategy, the strategy effectiveness will be given by external factors, that is, the competitive environment. Variables describing management or owner-managers values have usually little or no impact on the feasibility of a particular strategy, as pointed out by Hofer (1975: 793). Moreover, research on strategy content has traditionally benefited from the unobligation to dedicate

Exhibit 4.3:

RESEARCH CONCEPTUAL FRAMEWORK



attention to variables describing elements such as management's values and goals and "the political activity inherent in arriving at strategies" (Bourgeois, 1980).

The trilogy competitive environment, strategy and performance suggests that different environments will have different success factors. Different competitive environment will demand different competitive strategies. It is conceivable that in any industry different competitive strategies can occur contemporaneously and can be successful. This proposition is derived from the works of Miles and Snow (1978), who postulate the existence of different strategies in a industry, Snow and Krbiniak (1980), who maintain that, in order to achieve high performance, each strategy must be supported with appropriate distinctive competences, and Porter (1980), who points to the existence of strategic groups within the industry. It can be argued that in an industry there are more than one competitive environments.

On the basis of the above arguments and of the discussion carried out throughout the present chapter the central hypotheses of this study are established and the research framework is developed and showed in exhibit 4.3.

Hypothesis 1:

Within the same competitive environment, the competitive strategy of successful small firms differs significantly from that of less-successful small firms.

Hypothesis 2:

The competitive strategy pursued by successful small firms differs in different competitive environments.

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CHAPTER V

RESEARCH DESIGN AND METHODOLOGY

It will be recalled that the overall purpose of the research is to contribute to a greater understanding of the competitive strategy of small firms. With the belief that there exist strong relationship among a small firm competitive environment, its competitive strategy and performance, the research aims at investigating those competitive strategies which have proven to be effective against a background of factors which characterise the nature of the competitive environment of the small firms. To this end, the objective is to test two specific hypotheses as formulated in the previous chapter. These hypotheses read:

Hypothesis 1:

Within the same competitive environment, the competitive strategy of successful small firms differs significantly from that of less-successful small firms.

Hypothesis 2:

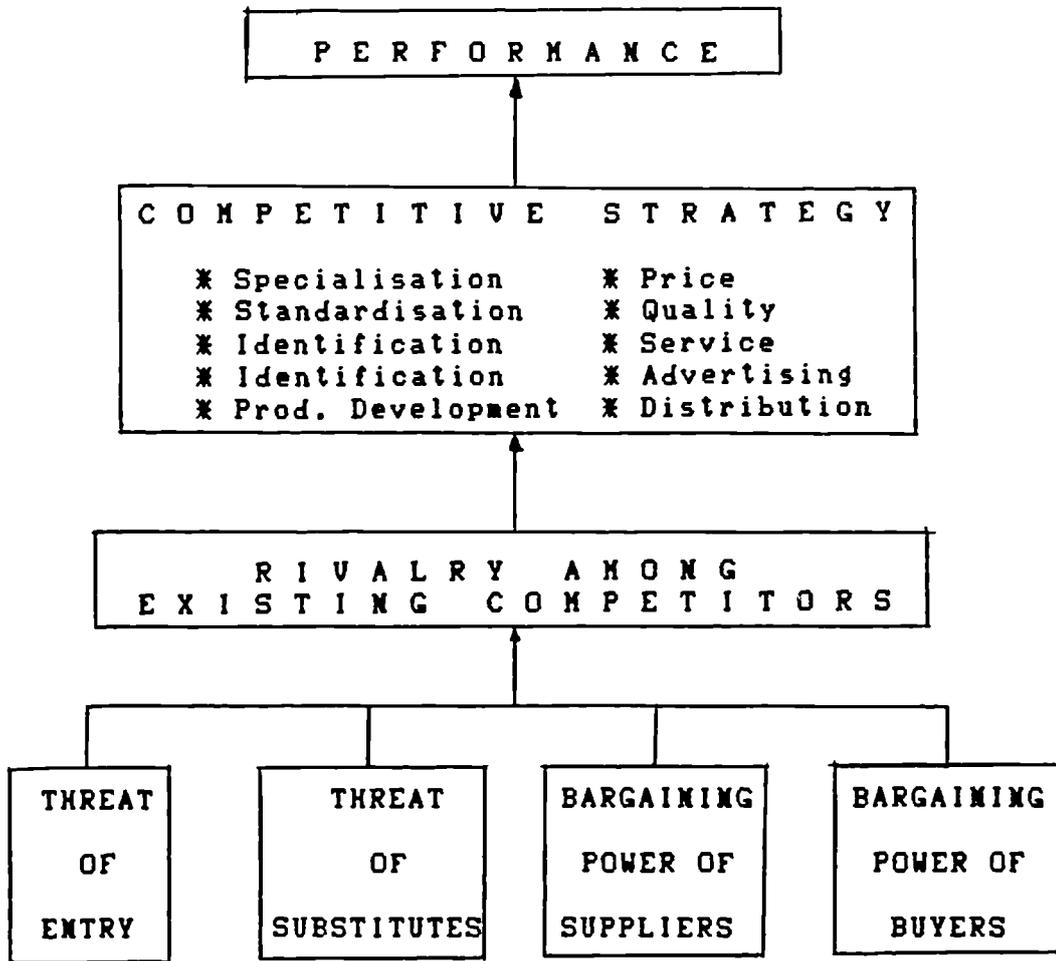
The competitive strategy pursued by successful small firms differs in different competitive environments.

Competitive environment was conceptualised by means of Porter's (1980) competitive forces framework, whose adequacy to the small firm sphere was considered in chapter IV. Competitive strategy was conceptualised as the small firms' realised behavioural pattern along a number of dimensions. These were pictured in exhibit 4.3 which is reproduced in exhibit 5.1.

The present chapter addresses the issues of operationalisation and research strategy designed to test the hypotheses.

Exhibit 5.1:

RESEARCH CONCEPTUAL FRAMEWORK



5.1 Operationalisation

5.1.1 Competitive Environment

Two important issues need to be addressed when discussing the operationalisation of the various competitive environment dimensions. These are measurement and sources of information or data. Although Porter's (1980) competitive forces framework has been seen as the most comprehensive way to analyse a company's competitive environment (Prescott, 1986:331) it has also been criticised for its difficulty of being operationalised, (O'Shaughnessy, 1984:46). Porter himself provides too few a



clue as to how operationalisation could be carried out, although he points out to types of information sources which could provide data for this kind of analysis (Porter, 1980: 368-82).

The related literature has failed to provide direct guidance on the operationalisation of the competitive forces framework. Guidance for the operationalisation of some of the five forces' components, such as level of concentration which help to understand the level of rivalry, can sometimes be found in the economics and industrial organisation literature. However, there was no guidance on how to put the various elements together in order to qualify the respective force. Besides the measuring instruments provided by this literature were believed to be totally inadequate for the purpose of the research, given the particular nature of the small firms. In addition, previous research works in the small firm field which have drawn from Porter's competitive forces framework (Horne, ud.) are not clear as to how this was operationalised.

As the objective of the analysis is to qualify the nature of the small firms competitive environment, it was decided to operationalise the five competitive forces from a qualitative point of view, rather than quantitative as Porter seems to imply - he usually mentions words such as intensity when referring to the level of forces of competition in the environment. Two approaches to operationalisation were considered during the planning stage of this research. Essentially these approaches differed in terms of their sources, methods and instruments of data collection, but each of them presented major weaknesses. Hence, the task was to minimize weaknesses.

One of the approaches would be oriented toward analysing the competitive environment at the industry level, focusing on identifying the industry's basic, underlying characteristics, which Porter argues are of fundamental importance (Porter, 1980:6). For this purpose, data could be obtained from industry publications, such as industry censuses and those by

departments and chambers of industry and industry associations, and from the results of previous research in economics. Porter provides a list of sources of relevant information.

Such an approach would make it possible to characterise the nature of the competitive environment from a point of view outside the individual firms, yielding this approach's greatest advantage. It has been argued that where the research interest is the effectiveness of a strategy, as in the present research, the actual rather than the perceived environment should be of prime concern since, although managers set objectives and design strategies in accordance with their perceptions and believes, the success or failure of the strategic action chosen will be regardlessly determined by the characteristics of the actual, objective environment (Burke, 1984:349).

On the other hand, the generalised nature of much published information has been seen as the primary disadvantage of approaches such as this, when they are contrasted with the highly specialised nature of many small firms (Brown, 1985: 14-5). The argument is that the usually narrow market scope of many small firms means that their relevant competitive environment may consist of only a small subset of the industry setting and that the competitive forces at play in such a subset may differ widely from those at the industry level (Gripsrud & GrOnhaug, 1985: 339-40). Thus according to these arguments, depending on the level of aggregation of data obtained from the above referred sources, this approach could prove itself inadequate.

In addition, gathering published information would not be much efficient for two reasons. Firstly, because no single source could provide data on all the competitive environment dimensions, what meant that a substantial large number of information source would have to be visited. Needless to mention, the constraints on time and financial resource for a doctoral piece of research render such an approach for the present research extremely difficult. The field work for this research had to be carried out within 3 months. Secondly, since

published information is actually elaborated-primary data, the information gathered from varying sources most certainly would reflect varying levels of abstraction what would impair the data analysis work.

The other approach to competitive environment operationalisation considered at the planning stage of this research would fundamentally concern the use of the owners/managers' own judgement in the identification of the nature of the environment in which they competed. That is, they would be asked to qualify the five competitive forces pertaining to Porter's (1980) framework according to their own perceptions. This would be implemented through open-ended questions.

The great advantage of this approach is its easiness of implementation. Competitive environment data could be easily obtained in an "one stop" way. Clearly, however, its major weaknesses are the arguments in favour of the approach considered above. Relying on the owners/managers' own judgement, the perceived rather than the actual nature of the competitive environment would be taken into consideration (Gripsrud and Gronhaug, 1985: 339-40). As already stated, while this appears to be a valid procedure when the process of management decision making is of interest, such an approach, it is argued, would be inadequate for other purposes (Burke, 1984: 349).

However, not every dimension of the competitive environment as conceptualised in this research has a definitively external nature; some of them bear a close relationship with the owner-managers' own judgement and perception. This is primarily the case of bargaining power of buyers and suppliers. Writers have suggested that power is derived from various sources or bases namely, reward, coercive, legitimate, referent and expert (Gaski and Nevin, 1985; Lusch and Brown, 1982; Hunt and Nevin, 1974). Thus, the power of "A" over "B" would depend on:

- ". B's perception that A has the ability to mediate rewards for him.
- . B's perception that A has the ability to mediate punishments for him.
- . B's perception that A has a legitimate right to prescribe behaviour for him.
- . B's identification with A.
- . B's perception that A has some special knowledge or expertness."

(Gaski and Nevin, 1985: 130).

It is clear that the great majority of the power sources, as identified above, are primarily perceptual. This argument favours the adoption of an approach to measure bargaining power of buyers and suppliers based on the owner-managers' own perception.

Even though the three other components of the competitive environment - threat of entry, rivalry, and threat of substitutes - are, from a firm's perspective, externally focused, since they have more to do with other firms in the market, it was decided to adopt the second mentioned approach toward operationalisation. In so doing, it was believed that the weaknesses were minimized. It was also believed that, better than having perfectly qualified competitive environments but which would have little to do with the small firms under study, was to relate the firms to the type of environment where their owner-managers believed they were competing, even though this approach could be seen by many as not appropriate. In addition, data gathering could be done within the time allowed for field work.

It was decided to operationalise the dimensions of the competitive environment through a series of structured and semi-structured questions, mostly qualitative. Most of these questions were derived from Porter's explanation of his five competitive forces and their constituent elements. The final version of these questions is presented in the second part of appendix 1 and in the first part of appendix 2, the instruments of data collection which are considered latter in this chapter. The variables originated by these questions, their

operationalisation and computation are showed in detail in appendices 3 and 4. An explanation of the reasoning behind the formulation of the questions is provided in the remaining part of this section.

Rivalry

As seen in chapter IV, Porter (1979, 1980) postulates that rivalry among existing competitors refers to those actions by competitors intending to improve their relative position in a market. The intensity of rivalry, according to Porter, is dependent on a number of interacting structural factors, such as, for instance, the number and balance of existing competitors (in terms of size and perceived resources), level of industry growth, fixed/storage costs, level of product differentiation, diversity of competitors, etc. In summary, rivalry intensity increases with the number of competitors, diversity of competitors in terms of goals, size, origin, etc, and product standardisation. It decreases with industry growth, the similarity of competitors regarding resources and power.

For the purposes of this research it was important to know which form these actions could take in the small firms competitive environments. Whether competition would take the form of price competition, quality competition, customer services, advertising battles, branding and make, etc. In addition, it was important to have information about size, origin and major activities of major competitors in these environments. Finally, information was also needed on the level of standardisation of products.

Threat of Entry

Porter (1979, 1980) postulates that the seriousness of the threat of entry will depend on the barriers to entry that are present in the market structure and on the existing competitors expected reaction. If barriers are high the competitive force

of threat of entry will not be serious (Porter, 1980:7-13). He identifies six major sources of barriers to entry vis economies to scale, product differentiation, capital requirements, cost disadvantages independent of size and government policy. In most cases, most of these barriers would not be present in the small firms environment, otherwise the small firms themselves would not be there. However, small firms are said to face many other sources of barriers and obstacles to their growth and development. For the purpose of this research it was important to know which barriers, if any, were these.

Major Suppliers and Major Clients' Bargaining Power

To infer about major suppliers and clients' bargaining power, various types of information were needed. One of the measures used to assess the bargaining power of suppliers was the percentage of total purchase the responding company normally did from its major supplier. In the case of bargaining power of major clients, one of the measures was the percentage of total sales normally going to the major clients. These measures were adapted from Blois (1977). Major suppliers were defined as those from whom the responding small firm purchased the greatest majority of inputs (raw materials) needed to manufacture its leading products. Major clients were defined as those to whom the responding company sold the greatest amount of its leading products. Based on Porter (1980) and on Blois (1977) it was assumed that purchasers of relatively large quantities would benefit from special terms of trade and the capability of influencing supplier's business, which were assumed to be sources of power.

Information was also needed on the ability of the responding company to find, and do business with, alternative suppliers and clients in the event their major suppliers and clients could not, or refused to, continue doing business with the responding company. This was needed to check the degree of dependence between the responding company and their trade partners. Based on Porter (1980), it can be assumed that the

greater this dependence, the greater the switching costs and the greater the bargaining power. That is, in case the responding company believed it would be difficult to find alternative supplier, it could be inferred that the responding company would face great switching costs and this would lead to a source of bargaining power of the company's suppliers.

According to, Blois (1977), Porter (1980), and Gaski and Nevin (1985) powerful suppliers and clients have the capability to get the buying/selling company to do something it would not have done otherwise. That is, they have, or are perceived to have, the capability to demand special trade terms or to influence the company's decisions regarding its marketing strategy. To check that it was important to know the major suppliers and clients likelihood to take a number of these actions. This was measured through an itemised scale of 4 points, from no capability at all to much capability, based on Gaski and Nevin (1985).

Finally, given the small firms reality it was believed necessary to add to the evaluation of major suppliers and clients' bargaining power, some information on their size, as compared to the responding company size, and major activity in the marketing channel context. This belief was reinforced during the interviews when it was made evident that respondents perceived that bargaining power of suppliers and clients, defined as the capability to get the responding firm to do something it would not have done otherwise, increased with firm size and when the business activity of the suppliers or clients varied from retailing to distribution and to manufacturing.

Threat of Substitute products

Porter's competitive forces framework also includes threat of substitute products as a force shaping the company's competitive environment. Despite that, as an attempt to reduce the length and the complexity of the instrument of data collection, no information in this respect was gathered. This

is explained in detail in the section of instrument of data collection.

5.1.2 Competitive Strategy

Bamberger (1981:23) suggests that there are two approaches to operationalisation and measurement of a firm strategic behaviour. The "dynamic" approach, by which realised and intended changes in a firm strategic behaviour are studied and the "static" approach, by which the firm strategic behaviour is investigated at a given time, that is, the field work focuses on the firms' realised, or current, strategies. The static approach involves asking the owner-managers about the company's current strategy and, according to Burke (1984), follows Bowman (1963) and Lilien (1979) believe that a manager's current approach to a problem is a result of making decisions over time which have been, in a Darwinian sense, successful. This research adopted the "static" approach, not only because time constraints prevented the adoption of the "dynamic" approach, but also because the "static" approach was believed compatible with the research overall objective, viz, the investigation of small firms successful competitive strategies, defined as the realised behavioural pattern along a number of dimensions.

Previous studies on these and similar issues have adopted the "static" approach to measure most of the concepts here termed competitive strategy dimensions. This is the case, for instance, of the study carried by Chaganti and Chaganti (1983), already referred to in the literature review, who used a highly structured questionnaire as the means of data collection. A more important example comes from the PIMS project, which has been both cited in, and source of data for, many studies on business strategy (Phillips et al., 1983, Woo and Cooper, 1982, for instance). The PIMS is an ongoing enquiry on the profit impact of marketing strategies carried out by the Strategic Planning Institute in Cambridge. In this project, the company's

informants are asked to report on standardised questions on the issues of concern.

Previous works have also focused on the small firms' relative position regarding their major competitors', collecting information on the company's relative position along the competitive strategy dimensions, such as, relative price, relative product quality, etc (Woo and Cooper, 1982; Phillips et al. 1983; Chaganti and Chaganti, 1983; Chaganti, 1987). The reason is that the major aim of a company's competitive strategy is to achieve competitive advantages relative to the company's major competitors. In addition, the measurement of the strategic dimensions is usually carried out by means of rating or itemised scales, such as the Linkert rating scale (O'Shaughnessy, 1984: 134).

This research followed the overall approach outlined above. The various dimensions of competitive strategy, as stated in chapter IV and reminded in exhibit 5.1, were measured through the use of both semi-structured interviews and a highly-structured mailed questionnaire, filed in the third part of appendix 1 and in the second part of appendix 2, respectively and commented latter on in this chapter. The specific measures of the dimensions were adapted from a number of other research studies. Detail of the operationalisation and computation of variables is shown in appendices 3 and 4. The major measures, as they were included in the interview schedule and the mailed questionnaire, are considered in turn in the following paragraphs.

Specialisation x Diversification

According to Bamberger (1981:6), these dimensions describe the diversity of a firm's activities and they may be considered as opposites on the same scale characterised by the same variables. The number and diversity of the firm's products and the number and the definition of the markets are the most

important measure of specialisation or diversification.

Markets

With regards to market, in the words of Bamberger (1981), two criteria can be used to define the firm's level of specialisation or diversification. These are the number of distinct, heterogeneous markets and the type or scope of the markets, that is, narrow x large markets. The narrower the market scope, the more specialised the company is with respect to its market. The geographical market scope has been used in previous research (Chaganti, 1987). In this research, the second criterium was chosen. The market scope of a small firm was measured by means of a scale comprising the percentage of sales that normally goes to (1) local markets, (2) to other cities, within the State, (3) to other States, within the Region, (4) to other Regions, and (5) to international markets.

These percentages were then summed up into one index. This is an index of geographic market concentration or sales distribution through the various geographic markets, computed by means of the formulae detailed in appendix 3. These indexes vary from zero to 100. A company scoring zero has no degree of market concentration and this means its output is evenly distributed along the "n" geographic markets the company serve. Since there are 5 possible geographic markets, an index of concentration of zero means the company sells about 20 percent of its output to each of the 5 possible markets namely, local, rest of the State, rest of the Region, rest of the Nation and export. An index of 100 implies that the scoring company makes the bulk of its sales to a particular market. The greater the score, the less diversified and the more concentrated (or specialised in terms of markets) a company is.

Products

With regards to product, Bamberger (1981) identify a number of criteria to define the company's level of specialisation or diversification. These are the number of

products (items), the number of groups of products (lines) and the diversity of products, that is, the degree to which products are related one another. The level of product diversification of a firm increases with the number of discrete products or product groups and decreasing relationships between them. This is also supported by Brannen (1978). In this research, the level of specialisation or diversification of products was measured by means of the three criteria as suggested by Bamberger. They represented the company's relative product-line width (average number of product lines or product groups), relative product-line depth (average number of items or products in a line) and product consistency (the degree to which products are related one another).

Product-line width and product-line depth were measured by having the respondents rate their position relatively to their major competitors' as narrower (smaller), similar or broader (larger). This scale has been used in previous research in the area (Woo and Cooper, 1982; Chaganti and Chaganti, 1982; Chaganti, 1987).

In the words of Bamberger (1981) "products may be related with regard to the common use of input factors (e.g. raw material), a basic technology, production procedures and facilities, the distribution system or the logistic system". In this research product consistency

was measured by asking the respondents whether or not their major products shared similar raw material, labour force skill, manufacturing process and equipment, distribution system and final usage. These answers were then summed into a single degree of product consistency by means of the computation detailed in appendix 3.

Product Customization x Standardisation

These dimensions describe the degree to which a company's products are standardised for all customers, or designed to produce to order for individual customers (Anderson and

Zeithaml, 1984:11). As with specialisation and diversification, they may be considered as opposites on the same scale characterised by the same variables.

The measure used to operationalise these dimensions was based on Caves and Williamson (1985:121) and consisted of the respondent's report on the percentage of the company's total sales for products made to individual customer's order specifications. High percentages indicated high level of customization.

Product/Brand Identification

According to Porter (1980) this dimension describes the degree to which a company seeks brand identification rather than competition based mainly on price or other variables. Product or brand identification can be achieved via provision of specialised services, company's image, packaging, advertising, proprietorship among others (Caves and Williamson, 1985).

The extent to which the small firms sought product or brand identification was investigated directly with the owner-managers, by means of a set of open-ended questions described in the third part of appendix 1. The majority of these questions were aimed at assessing:

- a) Identification via tangible aspects of product: whether any of these would influence customers' purchase decision;
- b) Branding: whether products were market through the company's own brand or unbranded;
- c) Identification via services: whether the company provided any distinct, specialised services;
- d) Identification via packaging: whether packaging was

perceived as part of company's selling effort

e) Identification via advertising: the relative importance of advertising to the company's selling effort.

Product Development

This dimension describes the typical frequency of changes in all or part of the company's product lines (Anderson and Zeithaml, 1984). It can be operationalised by means of two criteria: new product introduction and modification of old product (Chaganti and Chaganti, 1983; Anderson and Zeithaml, 1984; Chaganti, 1987).

New product introduction was measured as the number of new, modern products introduced into the company's product range over the 5-year period prior to the field work, based on respondents' report. Latter this variable was recoded into none, few, about 1 a year, and many over the 5 years.

Product modification was measured as the number of exiting products that were renewed over the same period of time, based on respondents' report. This variable was also recoded into a variable describing the frequency of product modification as never, rarely, nearly once a year, and often.

Product Quality

This dimension was measured by having the respondents rate the overall quality of their products as compared to that of their major competitors by means of a three point scale: inferior, similar, and superior. This measure has been frequently used in previous research (Woo and Cooper, 1982; Chaganti and Chaganti, 1983, Anderson and Zeithaml, 1984; Chaganti, 1987 and the PIMS studies).

A more elaborated measure based on Phillips et al (1983) was tentatively used without success. Owner-managers did not feel comfortable enough with it. This measure was also based on the three-point scale above, along with a request that the owner-managers estimated the percentage of sales volume for products that from the customers perspective were classified into each of the scale points as compared to products available from major competitors.

Product Price

The small firm's relative price position was measured by means of a 5-point scales based on Chaganti and Chaganti (1983). The scale varied from (1) much lower to (5) much higher. This variable was latter recoded into a three-point scale from (1) lower to (3) higher.

To investigate the extent to which price was a strategic variable, owner-managers were asked to rate the importance of price tactics such as price discounts, special price promotion, etc, to the company's selling effort on 4-point scale from (1) not at all to (4) very important.

The foregoing described the major dimensions of competitive strategy and their method of measurement and collection through the semi-structured interview schedule. Many other variables were originated from the interviewees report. They are considered in detail in appendix 3.

As mentioned earlier, a structured, mailed-questionnaire (appendix 2) was also used to collect information on competitive strategy. Due to obvious reasons, the mailed questionnaire did not permit the study of the competitive strategy dimensions in the detailed manner outlined above. It is important to note, though, that both instruments of data collection attempted to assess the same set of competitive strategy dimensions. While the semi-structured interview

schedule permitted the assessment of each strategic dimension by means of more than one measure, the mailed questionnaire was designed upon concise and direct measures only. In many occasions, the competitive strategy dimensions were measured by having the informant rate the importance of individual dimensions to the company's selling effort and success on a 4-point scale, from (1) not relevant/important to (4) very relevant/important. The operationalisation of the dimensions and the computation of all the variables originated from them are commented in detail in appendix 4.

5.1.3 Performance

Small firms performance was measured by means of financial measures obtained during the interviews with the owner-managers or from financial reports collected with them and from informants answers to the structured questionnaire. Financial measures were preferred to perceptual measures for a number of reasons. The literature failed to provide guidance for the design of reliable perceptual criteria. In this respect, Dollinger (1984), who provides a review of literature on measures of effectiveness in entrepreneurial organisations, examines and tests the validity of a perceptual measure composed of 10 categories (or factors) which the owner-managers were asked to rate on a scale from 0 to 100, according to their perceived level of success. However, as Dollinger himself concludes, the investigation provides limited support for the use of this instrument as a measure of effectiveness (Dollinger, 1984:17). On the other hand, many researchers offered support to the use of financial measures.

Robinson, (1983) provides a review of literature on such basic financial measures as return on investment, return on sales, and change (growth) in sales. Among these measures, return on sales and change in sales are said to be the most popular small firms performance measures. In three distinct

investigations (Alves, 1978; Edmister, 1970 and Gru, 1973, cited by Robinson, Jr. 1983), return on sales and change in sales proved to be the most significant predictors of successful versus unsuccessful small firms, among a number of predictors including return on investment. Davig (1986) used growth in sales and growth in profits as measures of small business performance.

Many are the arguments supporting the use of these measures of performance. Robinson states that "sales is a figure closely monitored by small firm owner-managers regardless of the sophistication of their accounting systems" and that "for small firm research, return on sales and sales growth offer readily available, reasonably accurate effectiveness measures that also appear to be operationally consistent with different frameworks for conceptualizing organization effectiveness" (Robinson, 1983:27-9). Other arguments in favour of these measures of performance are the facts that sales figures are more easily obtained in small firms databases and they provide greater accuracy and standardisation than other figures.

Robinson does not advise the use of investment figures as measure of small firms performance. The argument is that investment figures are not "consistently and meticulously monitored" by, and do not "come as immediately to mind" for the owner-managers as sales figures do (Robinson, 1983:27). Davig states that "return on investment, although a traditional measure of performance, is difficult to measure accurately in many small firms, and comparison across firms is highly suspect as a measure of relative performance" (Davig, 1986: 41). Despite that, other research works have measured performance on the basis of return on investment and return on asset value (Edmunds, 1979; Woo and Cooper, 1982; Chaganti and Chaganti, 1983; Chaganti, 1987).

As it can be concluded from the foregoing discussion, even among the small firms researchers there are conflicting views about which financial measure of performance should be used.

This, however, may be due to the fact that performance is a multidimensional variable (O'Neil and Duker, 1986). For this reason, in this research, a composite measure of small firm performance is used. This includes a number of financial performance measures which were latter computed into one single index of overall performance. This procedure is detailed in appendices 3 and 4, and briefly commented below.

Data on sales volume, net profit and total asset value were gathered for the years 1983 to 1985. Annual sales growth rates were computed and then summarised into a 3-year average sales growth index. In the same way indexes of 3-year average return on sales, 3-year average investment (asset) growth, and 3-year average return on investment were computed. These indexes were then computed into one single index of overall performance. Based on this, the small firms that fell within the top 33 percent of the frequency distribution of the index of overall performance were classified as successful small firms and the remaining as less-successful small firms. All values were standardised by the procedure of Z scores as contained in SPSSX (SPSS, 1986) prior to computations. This was done as an attempt to bring into one only scale values affected by different rates of inflation along the years.

5.2. Field Work and Data Collection Methodology.

This section describes the strategy adopted for the research. It discusses the issues behind the choice of research sites and strategy. It also examines the methods of sampling, data collection and analysis. The research comprises in-depth interviews with owner-managers of small firms located in Zona da Mata and a survey of firms located in the State of Parana.

5.2.1. Research sites

This research, and indeed the entire doctorate of the researcher has been funded by a Brazilian Research Institution

attached to the Brazilian Ministry of Education (CAPES). It was the interest of this institution that the research outcomes could directly benefit the Brazilian small firm sector. To meet this interest, the decision was made to relate the research to this country's reality.

Given Brazil's huge geographical dimension and regional disparities regarding levels of socio-economic development, and, naturally, constraints of time and resources, a nation-wide data collection was out of the scope of this research. The selection of research sites was, then, a necessity. Zona da Mata of the State of Minas Gerais and the State of Parana were chosen as the research sites. Both these regions are described in detail in appendix 6.

Zona da Mata was chosen for a number of reasons. It is a Region of great importance to the State's economy, particularly in agricultural and manufacturing terms, located near major industrial and economic centres of the country such as the cities of Belo Horizonte, Rio de Janeiro, Sao Paulo and Vitoria, and, yet, is a Region of economic decline. The decline is historically rooted in the crisis of the "coffee economy" since early 1900s and has been exacerbated recently by losses in the agricultural and manufacturing industries. This has given rise to a number of problems from increased poverty, rural migration towards the Region's urban areas and intense urbanisation and deterioration of quality of urban life, to migration to nearby urban centres of other Regions and losses in number and quality of working population, to name but a few (Governo do Estado, 1978). Given this, studies are needed which can provide possible solutions to Zona da Mata's long-standing problems. In this regard, the present research can make some contribution to institutions and development authorities seeking to boost Zona da Mata's economic and social development by means of the Region's small firm sector.

In Zona da Mata, small and medium-sized enterprises are prevailing. These are concentrated in the traditional

manufacturing industries such as textile, food processing, leather goods, timber, furniture making and clothing and footwear which are the sectors where losses have been greater (CEBRAE/IUPERJ, 1981; Governo do Estado, 1978). However, with the notable exception of CEBRAE/IUPERJ (1981), studies of the Region's small firms problems and other issues are nearly nonexistent. Moreover, no investigation has attempted to address specifically the issue of small firm competitive strategy. The little research done in this area of study provided immense opportunity to make some contribution to the present body of knowledge.

CEBRAE/IUPERJ (1981) claimed that, given the type of product the Zona da Mata's small firms manufactured, most of these companies faced difficulty in dealing with "uncontrollable environmental trends such as fashion and seasonal changes". These companies also lacked competitiveness in relation to newly-established manufacturing centres of the State, which benefited from modern technology and economies of scale, and, given the local markets decreasing purchasing power, they had problems selling their entire production and operated with idle capacity. In addition, since the local economy could not supply the type of raw material needed, this had to be acquired outside the Region and was regarded as a major problem. All these conditions together certainly places much pressure for planning flexibility, adaptation and, above all, dynamic marketing and competitive strategies. For these reasons, Zona da Mata presented a potentially significant scope for the testing of the hypotheses of the present research.

The other research site was the State of Parana. In the event of the personal contacts with the Banco do Brasil, which provided immense support to the field work of this research (this will be commented in detail latter on), this institution suggested the extension of the research to the State of Parana and offered to help with data collection in this area.

A quick reference to the literature elicited that many of

the circumstances prevailing in Zona da Mata did prevail in Parana too. This refers to the State historical development based on agricultural industry, the present role played by its manufacturing small firm sector in the economy, problems of rural migration to urban areas of the state and intense urbanisation and the need to boost the manufacturing industry sector, although for a different reason to that of Zona da Mata's. Above all, the dearth of studies of the Parana's small firm's issues.

The inclusion of Parana into the survey presented an opportunity for enlarging the scope and significance of the research outcomes as well as for making more substantial contribution to the state of knowledge of competitive strategies of small firms in Brazil (Which, as mentioned in chapters I and II, is very limited).

For these reasons, the decision was made to include Parana in the research. In the event, it is important to mention that cost constraint always remained. Thus the Banco do Brasil's effort regarding the field work and data collection was most welcomed.

Table 5.1 shows how the small and medium-sized firm sector of the research sites compare to that of the country and of the State of Minas Gerais, of which, as stated earlier, Zona da Mata is a part.

TABLE 5.1: Comparative table
Manufacturing and mineral extraction

SIZE	SMALL			MEDIUM			LARGE		
	EST	EMP	OP	EST	EMP	OP	EST	EMP	OP
BRAZIL	92.9	45.9	30.2	4.0	34.2	42.9	0.5	19.8	26.9
MINAS GERAIS	90.7	47.2	26.8	2.8	32.2	36.7	0.3	20.6	36.3
PARANA	94.4	62.3	39.9	2.6	30.2	51.7	0.1	7.5	7.9

SOURCE: FIBGE, 1984a,b,c.

EST: NUMBER OF ESTABLISHMENTS; EMP: TOTAL EMPLOYMENT; OP: OUTPUT VALUE

Note: The differences to 100% are due to establishments for which there were no information on size

5.2.2. Sampling

Criteria for sample selection

In order to be selected, a small company needed to satisfy a number of criteria. These criteria are commented in detail in the following paragraphs.

One of these criteria was the level of employment. As stated in chapter II, the most popular definition of small firms in Brazil is based on the number of employees and a small firm is generally defined as one with 20 to 100 working people (Dutra et al., 1984; Dutra and Guagliardi, 1984). These limits were taken as guidance for the selection of the small firms but in no occasion were they regarded as strictly rigid, allowing companies of slightly less than 20 employees and slightly more than 100 to enter the sample, provided they met the other sampling requirements too. Later, after the selection of the sample, it was found that all the companies tended to employ more people than the level recorded in the data bases used in this research.

The other requirement an enterprise had to meet in order to be selected was legal independence. This means that the companies had to be free-standing businesses. In other words, they could not pertain to a group of companies or be part of a complex enterprise system such as branches and subsidiaries, or small divisions of large enterprise. It also means that they were managed by their owners and even in the case management staff comprised hired, professional managers, owners had ultimate authority and effective control over their companies, although they might be constrained by financial obligations. Legal independence and owner-management are two of the criteria Carson (1985) argues characterise a small firm. In his words, small firms are

" ... generally owned by one person or, at most, a very few people. [They] tend to be managed by their owner or owners. ... They are not part of a complex enterprise system such as a small division of a large enterprise. Independence also means that

the firm's owner-managers have ultimate authority and effective control over the business, even though their freedom may be constrained by obligations to financial institutions" (Carson, 1985: 7-8).

This was a much needed condition for this study since, unlike single businesses, divisions of large companies, first of all, enjoy the support of a larger pool of resources, and secondly, have their strategies greatly determined by both their parent companies and their relation to their sister divisions.

Company years of operation was another criteria of sampling. It was decided that only companies operating for at least 5 years would be eligible for selection. This was considered necessary since firms operating for less than 5 years were unlikely to have evolved any clear patterns of competitive behaviour. Most probably they would be experiencing problems and constraints particular to the start-up stage of the business cycle which could not be generalised for all businesses.

To increase the probability that not all of the companies selected pertained to the same sort of competitive environment, the small enterprises had to meet a final requirement. To this end, Tavares' industry structure classification was used as a guidance (Tavares, 1978).

Tavares has identified 5 differing industry structures for developing nations. These structures differ according to the characteristics of competition in them. For each of these industry structures, namely Pure Oligopoly, Concentrated-Differentiated Oligopoly, Differentiated Oligopoly, Competitive Oligopoly and Non-Oligopolistic Market, she also identified the prevailing type of goods according to their usage characteristics and the prevailing sectors of manufacturing activities. These manufacturing sectors were used as a guiding factor in the sample selection. In order to be selected a company had to pertain to one of these sectors. Tavares classification is included in appendix 7.

The sample selection and the database

Based on the above mentioned requirements, the sample was selected from the database of Banco do Brasil, a major Brazilian commercial and governmental development bank whose role in the government small business promotion programme is fundamental. As it will be recalled from chapter II, the Banco do Brasil operates in the area of small firm assistance since 1963 and is by far one of the most important, if not the most important, institution in the field, specially in remote areas. To illustrate this, the number of small and medium-scale firms included in the banks database represented 90 percent of its total number of clients in 1982, including those small firms that had joined the MIPEM programme, a programme created in 1980 and designed to link financial assistance with managerial assistance (Banco do Brasil, 1982; 1985).

Other characteristics of the Banco do Brasil database should be noted. Firstly, it might not be the most complete existing Brazilian small firms register. Rather it proved to be the most complete among the accessible and available small firms registers. At the time of the research many institutions and possible small firms registers were contacted but, in many occasions, despite an immense effort, the researcher faced insurmountable difficulties, if not barriers, to obtain access to their database. In other occasions, the identity of the firms in the database could not be disclosed for reasons of confidentiality and this would prevent the collection of information directly with the owner-managers. In other instances, still, the databases contained too small a number of small firms to satisfy the requirements of the present study.

The Banco do Brasil not only welcomed the research but also offered to help. Its database included a substantial number of small firms located in the research sites and provided information over variables that were important for the sample selection. These are the company's order number, the owner-managers' name, the company's name, address and telephone number, the company's foundation year, level of employment and

industry sector of activity.

Secondly, the Banco do Brasil database comprised both small firms that were normal clients of the bank and those that had joined the MIPEX programme. This means that the sample selected might include small firms that had had managerial assistance by the Bank. Since this research is not interested in the process of strategy choice but aims at identifying successful competitive strategies, this fact is believed irrelevant and hence the assisted small firms are not treated as a separate group.

Finally, as it can be noted in tables 5.7 and 5.12, the Banco do Brasil database appears to present a significant bias. This is a possible preference of the bank by small firms of larger size, notably those of the size-range of 50 to 99 employees. This was only known after the sample was selected and was then attributed to one or both of the following reasons: most business of the bottom-end of the size-range would not achieve the business volume required by the bank or they are left outside the financial system for not being able to meet the bank requirements of collaterals and documentation, a well known problem of small firms. In any case, this was not thought to affect negatively the results of the study although it can make it difficult to generalize the results to small firms pertaining to different size-range. This is further considered in section 5.3.

From the Bank of Brazil's listings, 33 companies located in the Zona da Mata were drawn for the in-depth interviews. Then 330 companies located in the State of Parana were selected for the survey. To this end, a number was randomly drawn from 1 to 10 to represent the first company of the survey sample. Then this number was added to itself to represent the second company and so on until the listings were ended. Each selected company had to meet every sampling requirement and, when it did not, it was excluded from the sample and the company next to it in the listing was taken to replace it. The drawn number was then added to the order number of the replacing company.

5.2.3 The Access Issue, the Banco do Brasil Support
and Problems Encountered

With regard to the interviews, the support given to this research by the Banco do Brasil was fundamental in facilitating the access into the companies. The noticeably friendly nature of the relationship between the Banco do Brasil's officials and the companies was certainly a valuable help. In Zona da Mata, the owner-managers of every selected company were contacted, either by phone or personally, the researcher was introduced, the nature and the importance of the research was explained, and the entrepreneurs' collaboration was asked. After such an introduction, the researcher found it easy to build a good rapport with most of the owner-managers, who were constantly reminded that the research had no linkage with the Banco do Brasil, that the purpose was purely academic and strict confidentiality would be observed in not divulging individual responses nor personal matters. This sort of relationship was very much necessary given that most of the aspects pertaining to the interview schedule could have been viewed by the owner-managers as confidential to them.

Despite the Banco do Brasil's support in Zona da Mata, the field work posed many difficulties. The wide geographical area of Zona da Mata, the poor conditions of roads, the lack of infrastructure and services in general, all made travelling from small town to small town to contact the companies very time consuming and something of an endurance test. In addition fitting in the owner-managers' agenda was always hard to achieve.

The support given by the Banco do Brasil to the survey in Parana was also tremendous. Letters were sent to the various Bank of Brazil's MIPEM's officials in Parana informing them to which enterprises questionnaires had been mailed. These officials were instructed by their State headquarters in Curitiba to contact personally the companies' owner-managers in order to both ask their cooperation and help them understand

the questionnaire, in case of any difficulty.

5.2.4 Instruments of Data Collection, the Field Work and Reply Rates

As stated previously, data for the research were gathered by means of a semi-structured interview schedule and a highly-structured mailed questionnaire.

The in-depth interviews

The research interview schedule was carefully designed in advance of the field work. Initially it comprised 3 large sections to collect information on the company's background, competitive environment, and competitive strategy. It also included a short section on company's financial performance.

During the preparation of the interview schedule, in order to take into consideration as much as possible of the richness of Porter's competitive forces framework, a considerable large number of questions were formulated to assess the company's competitive environment. However, this meant that the length of the data collection instrument would mitigate against the success of the data collection task. After countless reviews the large number of questions were reduced to a more manageable level.

Due to time and financial constraints, there was no possibility to carry out a pilot study in the site of the research to pre-test the interview schedule. To improve the ability of the data collection instrument to capture the small firms reality and to communicate with the owner-managers, the research supervisor managed to organise interviews with some English entrepreneurs who were attending training courses at the Small Business Centre of Durham University Business School. The sections of the interview schedule regarding competitive environment and competitive strategy were tested with these owner-managers and changes and modifications were subsequently

made. The instrument was believed ready for the field work stage. However, data were to be gathered in Brazil with Portuguese-speaking people. Language, culture, education and business environment could all influence the effectiveness of the interview schedule. In view of this, the research supervisor advised that the reactions of the first owner-managers interviewed were carefully monitored.

During the interviews, it was soon discovered that the four-part interview schedule was still too long to be covered and time consuming. It was also realised that the questions on competitive environment proved to be all too complex before the crude reality of the small companies in this sample. Therefore, this claimed for a complete reformulation of the interview schedule for the conversation about the company's environment. This was done throughout the interview phase by addressing the many aspects pertaining to the environmental analysis, in a informal and exploratory way, after completing the other sections of the interview schedule. The owner-managers reactions to, and remarks on these sort of questions were all recorded and later taken into consideration. By the end of the interview phase a concise, simplified and highly structured questionnaire on environment aspects had been elaborated. Then such a questionnaire was posted to all the 33 entrepreneurs of which 28 replied. This yielded a final reply rate of 84.8 percent. The final version of the interview schedule including the structured questionnaire on competitive environment mailed to the interviewees is filed at appendix 1.

The interviews were carried out from August to November of 1986. The duration of each individual interview varied from a whole morning to a whole day. The time spend with each interviewee depended much on the length of the interview schedule, which, in turn, dependent on the nature of the aspects being investigated, and on the general level of education of the interviewee. In addition, the interviews were conducted solely by the researcher. Apart from financial constraints, a number of other reasons precluded the employment of research assistants to help with interviews. Among these,

the complex nature of the research topics, the unavailability of management students prepared to travel to Zona da Mata at that time of the year and the obvious need to ensure reliability of data collected. These facts contributed to reduce the pool of enterprises likely to be interviewed.

During the preparation of the fieldwork activities it was decided that the interviews with the owner-managers would be tape-recorded in order not to miss any of their remarks. This method was used during the first interviews but not with success. Although permission to tape record the conversation had been given by the owner-managers, such a method proved to make them extremely uncomfortable, embarrassed and suspicious, and was, for this reason, discarded. With no other alternative, hand-written notes of the conversation were made by the researcher throughout the interviews. Without doubt, note-taking has its drawbacks, particularly the danger of missing information whilst writing and the character of formality added to the conversation. However, none of these drawbacks proved important. At the end of each interview, all the information collected would then be read again, a report would be written and an interview schedule would be completed by the researcher for the particular company.

The Survey

The feedback from the interviews was fundamental in the formulation of the structured questionnaire used in the survey. The questionnaire, filed in appendix 2, comprised 3 sections regarding the major research topics: competitive environment, competitive strategy and financial performance. It was mailed to the other 330 small firms together with a number of letters explaining the research motives and importance and asking for the owner-managers collaboration. These letters, written by the researcher, the Bank of Brazil, CAPES, who financed the bulk of the research, and the research supervisor, are filed in appendix 5. A stamped, self-addressed envelope for replies was also sent to the companies. Twenty days after that, a letter of reminder was directed to each one of them. In addition,

since during this time there had been a substantial increase in the postage fares (by 80% to be precise), additional stamps were sent to all the companies to complete the postage fare for return of the questionnaire. Latter still, postcards were sent to tardy respondents.

The response rate is 43.33 percent. Out of the returned questionnaires, 15 were discarded since 5 of them were totally blank and 10 were from companies with more than 200 employees, one of these companies employed 520 people. The remaining 125 questionnaires are usable cases and comprised 37.88 percent of the companies selected for the survey. This is certainly a good reply rate giving that previous experiences in Brazil obtained only 20 to 25 percent response rate. It is important to note that this high response rate might have been a result of the support given to the research by the Banco do Brasil, addressed in the last section. It is also noticeable that the usable questionnaires contained a very small number of missing values.

5.3. The Composition of the Samples

As it will be recalled, this study draws from data collected during in-depth interviews with owner-managers of 28 small firms and from a survey of 125 companies. This section describes in detail both samples.

The interview sample

All the 28 companies in this sample are located in the Zona da Mata. For the purposes of the research, the research sites were divided into three sub-areas. These are a) Major centres, the major conurbation in the research sites including towns situated within 30 kilometres from the city; b) Secondary centres, other industrially and economically relevant areas with an urban population of over 100 thousand people; c) Rural areas, town and other settlement of less than 100,000 people, provided they are not industrial centres, comprising rural towns and smaller rural towns. In Zona da Mata, the major urban

centre is the conurbation of Juiz de Fora. 13 companies in the sample are located in the conurbation of Juiz de Fora and the remaining in rural areas.

TABLE 5.2: Company's Location - Interview sample

LOCATION	No. COMPANIES	PERCENT
Major Centre	13	46.4
Rural Town	13	46.4
Smaller Town	2	7.1
Totals	28	100.0

The great majority of the companies has between 20 and 99 employees. The average company size is 63 employees, the smallest company employes 20 people and the largest 115. 4 companies employes more than 99 people; their size is 103, 105, 110 and 115 employees each.

TABLE 5.3: Company's Size - interview sample

No. EMPLOYEES	No. COMPANIES	PERCENT
20 to 49	10	35.7
50 to 99	14	50.0
100 AND OVER	4	14.3
Totals	28	100.0

82.1 percent of these companies are family businesses, that is, they are companies which have been either founded or bought by a family and are managed by members of that family. The remaining 5 companies are partnership.

The 28 companies are, on average, owned by 4 persons. The majority of them (60.7 percent) are owned by up to 3 people and 39.3 percent are owned by the couple. Every company is owner-managed and 60.7 percent of them are managed by their founders. In some cases (39.3 percent) at most 2 professionals

have been hired to help manage the business. 63.6 percent of these managers have no family relation with the major owner.

TABLE 5.4: Top Management - Interview sample

MANAGEMENT	No. COMPANIES	PERCENT
Founder	17	60.7
Heir (Son/Daughter)	9	32.1
Successor	2	7.1
Totals	28	100.0

28.6 percent of the owner-managers have hardly been to formal schools. They have not concluded their first school (comprising the first 8 years of education) and some of these have less than four years of schooling. The remaining 71.4 percent have at least attended the first school. However, 10 of the major owner-managers bear a University degree, two of them in Economics, three in Management studies and the remaining in areas not related to business administration.

The great majority of the owner-managers (67.9 percent) have never attended a management training programme and when they did, the programmes were few and of short duration (21.4 percent).

9 of the companies (32.1 percent) have an office known as sales or marketing department. Most of these are purely administrative offices, but the person in charge also deal with suppliers and clients, advertising and sales campaign. The salesforce of 75 percent of the companies are composed of only sales representatives, most of whom would also work for other companies. In the remaining companies the salesforce comprises salesmen and representatives.

None of these companies are new businesses. They are on average 26.7 years old, the youngest company has been on operation for nearly 7 years and the oldest for 73 years.

All these companies are manufacturing firms. The distribution of the manufacturing sectors is presented in table 5.6. It is important to note that the categories of table 5.6 were derived from the researcher's best attempt to translate into English the categories pertaining to the Brazilian Industry Classification as devised by FIBGE (Fundacao Instituto Brasileiro de Geografia e Estatistica), a Brazilian

TABLE 5.5: Company's Age - Interview sample

AGE GROUP	No. OF COMPANIES	PERCENT
7 to 10 years	5	17.9
11 to 30 years	12	42.9
31 to 40 years	8	28.6
Over 40 years	3	10.7
Totals	28	100.0

Governmental Institutions responsible for collection and divulgence of census data. In addition, one of the companies pertaining to the interview sample could not be classified into any of these categories given the craftsmanship of its production process and its products - artistic jewelry cases and gift boxes.

TABLE 5.6: Distribution of Manufacturing Industry Sectors - Interview Sample

MANUFACTURING SECTORS	COMPANIES	
	NUMBER	PERCENTAGE
Furniture making	5	17.9
Clothing & Footwear	5	17.9
Mechanic engineering	4	14.3
Metal manufacturing	3	10.7
Textiles	2	7.1
Pharmaceuticals & Vet.	2	7.1
Food processing	2	7.1
Electric engineering	1	3.6
Timber processing	1	3.6
Chemicals & Fuels	1	3.6
Soaps and toiletry	1	3.6
Other	1	3.6
	28	100.0

Finally, tables 5.7 and 5.8 approach briefly the question of sample representativeness. Two points need to be noted in this regard. Firstly, census data for Zona da Mata are not readily available from published sources, and so the interview sample data are compared to those of Minas Gerais, the Brazilian state of which Zona da Mata is a part. Secondly, table 5.7 includes only small firms of the industry sectors pertaining to the sample. For example, since no small firm of the sample operates in the tobacco industry, the tobacco industry firms are excluded from the census distribution of firm size. Similarly, table 5.8 includes only small firms of the size range pertaining to the sample. Hence, firms with less than 20 employees and those with more than 115 employees are excluded from the census data.

TABLE 5.7: Interview Sample Comparison with
Census Data - No. of Employees.

No. of EMPLOYEES	BRAZIL	MINAS GERAIS	SAMPLE
20 TO 49	66.5%	67.6	35.7
50 TO 99	27.0	25.2	50.0
100 TO 115	6.5	7.2	14.3
Totals	100.0	100.0	100.0

Source: FIBGE, 1984 a,b

TABLE 5.8: Interview Sample Comparison with
Census Data - Industry Sectors

SECTORS	BRAZIL	MINAS GERAIS	SAMPLE
Furniture making	7.2	7.1	17.9
Clothing & Footwear	13.8	18.1	17.9
Mechanic engineering	15.2	12.6	14.3
Metal manufacturing	13.5	15.3	10.7
Textiles	7.3	6.5	7.1
Pharmaceuticals & Vet.	0.8	1.0	7.1
Food processing	15.8	25.2	7.1
Electric engineering	4.8	3.0	3.6
Timber processing	12.1	3.5	3.6
Chemicals & Fuels	4.9	4.2	3.6
Soaps and toiletry	0.8	0.9	3.6
Other	3.8	2.6	3.6
Totals	100.0	100.0	100.0

Source: FIBGE, 1984 a,b

As discussed in the section on the database, the sample firm-size distribution does not follow the census distribution for this variable. This was attributed to a bias in the database that would not influence negatively the results of the present study, rather would hamper the generalisation of the findings. Firm size is a variable whose influence in the process of strategy making has been noted (Hofer, 1976) perhaps because it summarises the effects of other variables such as resource level. However, firm size would not affect the effectiveness of the chosen strategy, the primary concern of the present study. On the other hand, it can be said that, first of all, since the group of small firms of the size range of 20 to 49 people is not well represented in the study, the results should be seen with caution with regard to this size group. Secondly, it might be argued that the pool of realised competitive strategies presently studied has been reduced by the limited representativeness of the firm size range 20 to 49.

With regard to table 5.8, the obtained sample industry sector distribution is a result of the inclusion of Tavares' industry classification as one of the sampling criteria, already discussed previously. This was a needed resource to assure the variation of the characteristics of the competitive environment throughout the sample.

The Survey sample

This sample comprises 125 small firms. These companies are described with regard to their location, number of employees and manufacturing sectors in tables 5.9, 5.10 and 5.11, respectively, and compared with census data in tables 5.12 and 5.13.

5 of the respondents did not inform the size of their companies. In these cases, the number of employees as informed by the Banco do Brasil was used instead. The survey companies employ on average 52 people and their size range varies from 16 to 123 employees. Of the enterprises with 100 employees or more, 2 have 100 employees, 2 have 103 and another 2 have 106.

The remaining 6 companies employ 102, 105, 110, 115, 117 and 123 people each.

TABLE 5.9: Company's Location - Survey sample

LOCATION	No. COMPANIES	PERCENT
Major Centre	40	32.0
Secondary Centre	32	25.6
Rural Town	30	24.0
Smaller Town	23	18.4
Totals	125	100.0

TABLE 5.10: Company's Size - Survey sample

No. EMPLOYEES	No. COMPANIES	PERCENT
16 to 19	14	11.2
20 to 49	52	41.6
50 to 99	47	37.6
100 AND OVER	12	9.6
Totals	125	100.0

TABLE 5.11: Distribution of Manufacturing Industry Sectors - Survey Sample

MANUFACTURING SECTORS	COMPANIES	
	NUMBER	PERCENTAGE
Timber processing	16	12.8
Furniture making	16	12.8
Clothing & Footwear	14	11.2
Food processing	13	10.4
Metal manufacturing	11	8.8
Mechanic engineering	11	8.8
Chemicals & Fuels	7	5.6
Paper processing	7	5.6
Textiles	7	5.6
M-Metal mineral goods	6	4.8
Others	4	3.2
Electric engineering	3	2.4
Drink	2	1.6
Mining & Quarrying	2	1.6
Pharmaceuticals & Vet.	2	1.6
Leather Goods	1	0.8
Soaps and toiletry	1	0.8
Plastics goods	1	0.8
Transportation goods	1	0.8
Totals	125	100.0

With regard to tables 5.12 and 5.13, the same comments pertain here as with tables 5.7 and 5.8. Note that the relevant size range here is 16 to 19 people.

TABLE 5.12: Sample Comparison with Census Data
No. of Employees - The Survey

No. of EMPLOYEES	BRAZIL	PARANA	SAMPLE
16 TO 19	25.6	28.9	11.2
20 TO 49	47.5	49.2	41.6
50 TO 99	18.8	15.5	37.6
100 TO 125	8.1	6.4	9.6
Totals	100.0	100.0	100.0

Source: FIBGE, 1984 a, c.

TABLE 5.13: Sample Comparison with Census Data
Industry Sectors - The Survey

SECTORS	BRAZIL	PARANA	SAMPLE
Timber processing	9.4	31.1	12.8
Furniture making	5.5	7.3	12.8
Clothing & Footwear	9.7	3.9	11.2
Food processing	19.9	12.1	10.4
Metal manufacturing	8.8	5.2	8.8
Mechanic engineering	8.2	7.5	8.8
Chemicals & Fuels	2.8	3.1	5.6
Paper processing	1.5	2.6	5.6
Textiles	4.7	2.3	5.6
N-Metal mineral goods	14.1	13.0	4.8
Others	2.6	1.5	3.2
Electric engineering	2.8	1.3	2.4
Drink industries	1.2	1.0	1.6
Mining & Quarrying	1.9	1.8	1.6
Pharmaceuticals & Vet.	0.5	0.2	1.6
Leather Goods	0.7	0.5	0.8
Soaps and toiletry	0.6	0.3	0.8
Plastics goods	2.3	1.2	0.8
Transportation goods	2.8	4.1	0.8
Totals	100.0	100.0	100.0

Source: FIBGE, 1984 a, c.

5.4. Methodology of Data Analysis

The data analysis, explained in detail latter in this section, followed the following scheme. Initially, the small companies were grouped into clusters according to their competitive environment characteristics, by means of a statistical technique called cluster analysis. Then, within each cluster, the companies were classified according to their overall level of performance into successful companies and less-successful companies. The competitive strategies of these sub-groups were then compared with a twofold objective. Firstly, to verify whether these groups differed fundamentally in terms of their competitive behaviour. Secondly, to verify whether the competitive behaviour of the successful firms differed throughout the clusters.

Although data obtained with the interviews are highly comparable with data from the survey, they were analysed separately. The only reason for doing so was the fact that the in-depth interview data could provide a richness of insight that the survey data could not. As stated earlier in this thesis, while the in-depth interview schedule permitted the measurement of most of the competitive strategy dimensions in more than one manner, the mailed questionnaire, demanded that only one measure was used for each dimension.

As mentioned, cluster analysis was used to group the companies according to their competitive environment characteristics. This statistical technique has wide usage in all sciences. According to Anderberg (1973), this technique has been used in studies in life and medical sciences, behavioural and social sciences, earth and engineering sciences. With regards to the behavioural and social sciences the author writes that they

"have provided the setting for an extraordinary variety of cluster analysis applications. The following entities have been among the many objects of analysis: training methods, behaviour patterns, factors of human performance, organizations, human judgments,

test items, drug users, families, neighborhoods, clubs and other social organizations, criminals and crimes, students, courses in school, teaching techniques, cultures, languages, artifacts of ancient people, and excavation sites." (Anderberg, 1973: 5).

In the marketing area, cluster analysis is used to identify, for instance, persons with similar buying habits (segmentation) in order to target marketing strategies (Norusis, 1985). It has also been used in similar research. For instance, cluster analysis was used by Woo and Cooper (1982) to classify companies according to their market environments, and by Prescott (1986) to classify business units into categories according to characteristics of market structure. In this research, the "cluster analysis" as contained in the Statistics Package for Social Science - (SPSSX, 1986) was used.

Cluster analysis is a technique which attempts to solve the following problem:

"Given a sample of N objects or individuals, each of which is measured on each of p variables, devise a classification scheme for grouping the objects into g classes. The number of classes and the characteristics of classes to be determined." (Everitt, 1974:1).

That is, it is a technique used to form groups of relatively homogeneous objects when it is not possible to define 'a priori' neither the rule of classification (group membership) nor the number of groups. This definition explains why cluster analysis was preferred to other statistic techniques, such as discriminant analysis, which can also classify objects or cases into categories. To use discriminant analysis, group membership or the classification rule must be known. Cases are assigned to groups whose number and predominant characteristics are known (Norusis, 1985). In the case of the present study, neither the characteristics of the

competitive environment nor the number of environments were known.

To obtain the clusters, measures of similarity or distance between all pairs of objects are computed. Similarity measures closeness and distance is a measure of how far apart two objects are. Then the similar objects are grouped together into clusters according to selected methods of object combination and of clusters formation. These similarity/distances measures and clustering methods can be selected from the many options provided by the SPSSX package.

All the measures of similarity and distance between cases available in the SPSSX are applicable to variables that are either continuous, ordinal or binary and not to a mixture of variable types. Since the great majority of environmental variables in this study are of the type "yes or no", that is binary variables, variables that are not binary were transformed into binary variables and the similarity/distance measure was selected accordingly.

In this study, a measure of similarity was chosen. When choosing the necessary similarity measure a "rule of similarity" or, in other words, a statement that emphasises the relevant aspects of the relationship between the binary values, needs to be devised. That statement is then translated into a formulae of similarity measure. Since the interest in this research was to group companies that shared similar patterns of competitive environment, it was ultimately necessary to know which companies answered similarly the questions posed to them. The "similarity rule" was thus devised as the following statement:

Two companies share a similar competitive environment if both of them answer "yes" or "no" to the same set of questions. The greater the number of times they answer similarly a same set of questions, the more similar their competitive environment is.

Based on the above rule, the similarity measure was

selected from the many contained in SPSSX proximities. The measure, entitled "simple matching similarity measure", is as follows:

$$\begin{array}{c} \text{-----} \\ : \qquad \qquad \qquad a + d \qquad \qquad : \\ : \quad SM = \frac{\quad}{\quad} \quad : \\ : \qquad \qquad \qquad a + b + c + d \qquad : \\ \text{-----} \end{array}$$

This is the ratio between the total number of matching characteristics to the total number of characteristics in analysis. The number of matches is measured by "a + d", where "a" is the number of times that both companies in the pair under comparison have jointly answered "yes", and "d" is the number of times that both companies have jointly answered "no" to the set of questions. "b" and "c" are the other two possibilities, that is, the number of times the first company in the pair answered "yes" and the second company answered "no" and vice versa to the same set of questions. Thus, the greater this ratio, the greater the similarity between the pair of companies under comparison.

By means of the SPSSX procedure "proximities" a matrix of similarity was then produced and used as input for the cluster analysis. The decision of which company should be combined at each stage was made with the adoption of the method entitled "average linkage between groups", which is one of the many offered by the SPSSX package. Such a method is usually preferred to other linkage methods because it uses information about all pairs of objects while calculating the distances between them, that is, "the distance between clusters is the average of the distances between all pair of cases, in which one member of the pair is from each of the clusters" (Norusis, 1985) so that "the average distance between all cases in the resulting cluster is as small as possible" (Everitt, 1974).

The next step in the process of cluster analysis is the selection of a method for forming the actual clusters. Since the SPSSX includes only hierarchical clustering methods, such a decision was made easier. The selected method was entitled

"agglomerative" through which cases are grouped into bigger and bigger clusters until all cases are member of a single cluster.

The final step in cluster analysis is the actual selection of the number of clusters. Each stage of the cluster analysis is a possible solution. The decision regarding the stage to stop clustering or the number of clusters can only be done somewhat arbitrarily by the analyst who has as guidance the coefficients of similarity at which an extra case is included in a particular cluster or two previous clusters are merged into a single cluster and the shape of the clusters. Large coefficients indicate that fairly homogeneous clusters are being merged and small coefficients indicate that clusters containing quite dissimilar members are being combined. As a guide, clustering should be stopped as soon as the coefficient decreases considerably from one step to the next (Norusis, 1985).

The variables used in the clustering and their labels appear in appendices 3 and 4. The cluster results are filed at appendix 8. These are the vertical icicle plot, the agglomeration schedule and the dendrogram. The vertical icicle plot should be read from bottom to top. It shows all steps of the cluster analysis. The agglomeration schedule contains the number of cases of clusters being combined at each stage and the similarity coefficients. The dendrogram shows the clusters being combined and the values of the coefficients rescaled between 0 to 25. Neither the vertical icicle plot nor its alternative horizontal icicle plot representing the survey data could be included in appendix 8, given their sizes.

After the number of clusters was decided upon, the characteristics of each clusters were studied. This was carried out by means of simple computing procedures such as crosstabulations and frequencies of the many variables that corresponded to the competitive environment characteristics.

Once the characteristics of the competitive environment in each cluster have been identified, the second stage of the data

analysis begun. This entailed the study of the competitive strategy of small firms within their respective clusters with a twofold objective. Firstly, to verify whether in a given cluster the successful small firms differed fundamentally from the less successful small firms with regard to their competitive strategy. Secondly, to verify whether there was any substantial difference in the pattern of the successful small firms competitive behaviour across the clusters. To this end, the framework of competitive strategy dimensions, derived from the review of the relevant literature and pictured in exhibit 5.1, was used as guideline. In addition, the companies in each clusters were classified according to their relative overall level of performance into two classes: successful small firms, those whose overall level of performance fell within the top 33 percent of the frequency distribution of this variable, and less-successful small firms, the remaining companies. The computation of the overall level of performance is described in detail in appendices 3 and 4.

By accomplishing the objectives mentioned in the above paragraph it is believed that the overall aim of this research is achieved, that is, to investigate the small companies competitive strategies which have proven to be effective or successful within the various types of competitive environment.

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CHAPTER VI

FINDINGS AND ANALYSIS

THE SURVEY

The primary objective of the present exploratory study is to investigate the competitive strategy of small firms. To this end, the task is to test two working hypotheses which read:

Hypothesis 1:

Within the same competitive environment the competitive strategy of successful small firms differs significantly from that of less-successful small firms.

Hypothesis 2:

The competitive strategy pursued by successful small firms differs in different competitive environments.

These hypotheses are tested in two samples of Brazilian small manufacturing firms with data collected during interviews and also by means of mailed questionnaire.

The present chapter presents and examines the results of the analyses carried out on the survey data. Because the survey sample is considerably larger than the interview data sample, these results are assumed to be more significant than the interview data results. For this reason alone they are considered first. The interview data results are dealt with in the next chapter.

The methodology of analysis was discussed in chapter V. Briefly, this entails the grouping of small firms into clusters on the basis of their competitive environment characteristics by means of cluster analysis. Then the characteristics of the

competitive environment in each cluster are identified. These topics are dealt with in section 6.1.

Following that, the small firms in each group are classified into successful and less-successful companies according to their relative overall level of performance, as indicated in chapter V. Finally, the competitive strategies of these companies are studied with the objective of verifying if there is any difference between the competitive strategy of successful and less-successful companies within groups and among successful companies strategies across groups, thus testing the hypotheses of this study. This is carried out in section 6.2.

The chapter concludes with a discussion on the prominent characteristics of each competitive environment and the corresponding successful competitive strategy.

6.1. The Competitive Environments.

SPSS-X cluster analysis was run with the competitive environment variables for the 125 small firms of the survey sample. The 7-cluster solution was chosen as the solution of the clustering of the survey small firms into similar competitive environments. This is represented by the line number 118 of the agglomeration schedule filed at appendix 8 and means that 7 clusters were generated. One of these clusters comprises only one small firm (case number 125). In fact, this means that this company did not group with any of the others and, for this reason, it was excluded from the analysis. The remaining clusters are named clusters SA, SB, SC, SD, SE, and SF with 17, 11, 10, 17, 18 and 51 small firms each, respectively, totalling 124 companies.

The six clusters, shown in table 6.1, do not describe all the possible competitive environments but do include the settings of the 124 small firms included in the survey. It is important to be aware that the small firms within a cluster do

not necessarily compete with each other, rather they compete in environments with common characteristics.

6.1.1. Clusters SA, SB, and SC.

These clusters consist of producers of industrial inputs, such as industrial supplies and raw materials, and capital goods. Most of these firms compete in manufacturing sectors characterised by medium and large scale of operation. This means that larger competitors can benefit from advantages of scale economies. The small firms in these clusters may be, hence, at disadvantage regarding production efficiency, and their unit costs might be relatively higher than larger competitors'.

The importance placed by owner-managers on technology of production may be an indication of the dynamic nature of the competitive environment in these clusters. Production technology advancements can easily turn obsolete an entire product line and this means that the rate of product change is high. Apparently the competitive environment of cluster SA is the most dynamic among the three, since 100 percent of the respondent indicated that production technology is important to competition. On the other hand, 73 percent of the respondents in cluster SB and 60 percent in cluster SC believe so, implying that these clusters are of a less dynamic nature, and cluster SC the least unstable of the three.

It was not possible to verify the level of product standardisation in the market but given that scale of production tend to be large it is conceivable that products are highly standardised. This is explained by the fact that between instances of technology advancements large manufacturers must standardise their products to benefit from economies of scale.

Selling prices are not controlled by any governmental authority in neither of these clusters, but most certainly larger firms are the price-leaders. However, rivalry among

TABLE 6.1: MAJOR COMPETITIVE ENVIRONMENT CHARACTERISTICS
OF SURVEY SMALL FIRMS

Clusters	CLUSTER SA	CLUSTER SB	CLUSTER SC	CLUSTER SD	CLUSTER SE	CLUSTER SF
Number of companies	17	11	10	17	18	51
Type of products	Industrial inputs and capital goods	Industrial inputs	Industrial inputs and capital goods	Consumer nondurable & industrial inputs	Industrial inputs	Consumer nondurable & consumer durable
Rivalry: Sector domination	Medium and large firms (77%)	Medium firms (73%)	Medium and large firms (90%)	Medium firms (71%)	Small firms (78%)	Small firms (75%)
Price Leadership/control	Larger firm may lead prices	Larger firm may lead prices	Larger firm may lead prices	Prices controlled by Government (77%)	Market prices	Market prices
Technology	Important for 100% of respondents	Important for 73% of respondents	Important for 60% of respondents	Important for 53% of respondents	Important for 39% of respondents	Important for 40% of respondents
Important features of competitive action	Quality (100%) Price (82%) Tradition (82%) Tech. specif. (82%) Delivery (65%)	Quality/price (100%) Tech. specif. (91%) Tradition (55%) Warranties (46%)	Quality (100%) Warranties (100%) Price (70%) Tradition (60%) Delivery (60%)	Quality (100%) Branding/make (88%) Delivery (77%) Raw Material (47%) Tradition (47%) Price (29%)	Quality (100%) Price (89%) Raw material (78%) Delivery (67%) Tradition (39%)	Quality (96%) Price (90%) Fashion (63%) Branding/make (55%) Tradition/image (53%)
Barriers to entry and growth of the firm	Init. Capital (94%) Raw material (94%) Skilled labour (94%) Gov. Regulat. (41%)	Manuf. product (46%) Skilled labour (37%) Init. Capital (28%)	Init. Capital (80%) Raw material (40%)	Raw Material (64%) Init. Capital (47%) Gov. Regulat. (41%)	No barriers (44%) Raw material (33%) Init. Capital (22%)	Raw Material (65%) Skilled Labour (60%) No Barriers (22%)
Suppliers Bargaining power	Moderate or great (94%)	Moderate or great (73%)	Little or Moderate (60%)	Little or Moderate (59%)	None or Little (100%)	None or Little (70%)
Clients Type	Distributors and/or Manufacturers (76%)	Distributors and/or Manufacturers (91%)	Distributors and/or Manufacturers (60%)	Distributors and/or Retailers (71%)	Distributors and/or Manufacturers (72%)	Retailers and/or Distributors (88%)
Bargaining power	Little or Moderate (88.5%)	Moderate or Great (91%)	None or Little (90%)	Little or Moderate (71%)	None or Little (83%)	None or Little (71%)

competitors is not believed to take the form of price battles since purchase decisions for industrial inputs and certain capital goods are based largely on performance and technical specifications of products. Consistent with that, the trio quality-price-technical specifications of products is the fundamental base of competition, backed by warranties and manufacturers tradition in both clusters SA and SB. In cluster SC, product technical specification does not seem to be very important (only for 20 percent of the respondents).

Small firms in cluster SA are well protected from competition from new firms operating in the small scale range. The high amount of initial capital requirement (94 percent of the respondents) can certainly deter entry of many of these firms. However, new entrants are likely to be larger, more resourceful firms bringing more threat to the small firms currently competing in this environment.

Lack of access to raw material supplies or difficulty in contracting raw materials supplies can also deter entry in cluster SA (94 percent of the respondents). Again small entrants are more likely to be affected by this than larger entrants. It is not certain, however, the extent to which lack of, or difficulty with, raw material access is a real barrier or a consequence of the Brazilian government economic plan being implemented during the time of the research field work. This was the Cruzado Plan which, among other things, aimed at curbing inflation rate. Most prices were rigorously determined and controlled by government authorities and this led to recession and generalised lack of raw materials in certain industries. Manufacturers of industrial components refused to sell their products at government-dictated prices but would sell them at black-market prices. While such an atypical effect could be successfully controlled with regards to the interview cases, the survey questionnaire did not allow the same flexibility. Hence, there is a probability that answers to this specific question might have been somewhat influenced by the circumstances of the economy.

94 percent of the companies in cluster SA perceive difficulty in hiring skilled, qualified labour as another entry or growth barrier. This is absolutely consistent with other characteristics of the cluster. The level of production technology and capital requirements might indeed mean that specialised, trained and technically skilled labour is necessary to manufacture the products. Since in developing countries this is usually at shortage, the small firms must compete with larger firms for this scarce resource and, in order to obtain it, the small firms need to be prepared to offer extra, competitive benefits. Not many small firms, however, are likely to have the necessary amount of resource to back such offering.

To exacerbate the uneasiness of the competitive environment in cluster SA, the small firms must cope with government regulations. This is also perceived as barrier to entry, although at a lower level than the other barriers above discussed (41 percent of the respondents only). Concluding, given the sort of entry barriers existing in this cluster, threat of entry is low and new competitors are likely to be few but larger and more resourceful.

The small firms in clusters SB and SC are less protected by barriers to entry and threat of entry here is higher. This means that the environment in these clusters are more fragmented than that of cluster SA. Initial capital is nearly a nonexistent barrier in cluster SB but a strong one in cluster SC. For that reason, small firms in cluster SB appear to be more likely to face competition from new small firms than the firms in cluster SC. The most important barrier in SB, as perceived by the respondents, is the level of difficulty in manufacturing the products. In cluster SC the respondents also pointed to difficulty with raw material supply as a barrier of entry or small firm growth. The comments made earlier also apply here.

The purchase of industrial inputs is usually governed by contracts. Hence, most of the small firms in all these three

clusters are likely to benefit from this sort of market guarantee. The extent to which they can benefit from it, or that the contracts resemble their desire and needs, vary among the three clusters with the intensity of the bargaining power of their major clients and major suppliers. Powerful clients can force down prices and demand higher quality, services and benefits which increase the sellers costs. Powerful suppliers can threaten to raise prices, reduce the quality of their products or the quantity of goods sold to each of their clients. They can also refuse to meet small quantity orders. When a company face both powerful suppliers and powerful clients, it has less freedom of action, faces enormous strategic problems and is very likely to have increased costs and reduced revenues.

Of the three clusters, small firms in cluster SB are the least benefited from purchase contracts. In this cluster the great majority of the respondents indicated that their major clients have moderate or great bargaining power. The uneasiness of the competitive environment in cluster SB is increased with the amount of bargaining power of major suppliers. 73 percent of the respondents believe that the bargaining power of major suppliers are moderate or great. This might imply that small firms in this cluster face increased purchasing costs and reduced revenues. The small firms in Cluster SC benefit most from the market guarantee obtained with purchase contracts with clients whose bargaining power is negligible. Moreover, with suppliers with lower bargaining power than those of the previous clusters, the small firms in cluster SC should find it easier than the others to operate in their competitive environment. Small firms of cluster SA are in an intermediary position. While their clients do not have much bargaining power their suppliers are powerful. This might imply that small firms in this cluster face increased purchasing costs and problems with pricing.

6.1.2. Cluster SD

This clusters consist of small firms producing consumer

nondurable goods and industrial inputs most of which used to produce consumer goods. On the whole, these products do not demand high technology since production technology is perceived as important to selling effort in only about half of the cases. Moreover, these components do not need to be produced in large scale for the sector is dominated by medium-scale firms. They should be easy to be produced since the small firms do not believe that difficulty in manufacturing them or access to skilled labour are barriers of entry or growth in this competitive environment, unlike the previous three.

Despite of the nature of the products, rivalry is not likely to be based on price, since, unlike the other clusters, prices of most products are normally controlled by governmental authorities. Consistent with that, product price is not included among the five most mentioned bases of competition in this environment. More important than price are product quality (100 percent of the respondents), and branding and product make (88 percent). The effectiveness of the delivery system, which can be taken as service to customers, plays a more important role in this cluster than in the previous ones, with 77 percent of the respondents pointing to its importance in the competitive effort of the companies.

Accepting that the respondents were influenced by the temporary shortage of raw materials during the time of the survey, the most important barriers of entry in this cluster, and obstacles to the growth of existing companies, are requirements of initial capital (47 percent) and government regulations (41 percent). Having fewer barriers, the competitive environment of this cluster is more fragmented than the previous three. This is confirmed by the relatively low bargaining power of suppliers and clients, which is also a characteristic of fragmented environments. For that reason, competition should be more intense here than in the previous clusters.

6.1.3. Clusters SE and SF

These are totally different competitive environments and are more fragmented than Cluster SD. Cluster SE comprises small producers of industrial inputs and cluster SF comprises mostly producers of consumer goods both durable and nondurable. These firms compete in environments exclusively dominated by small firms. Selling prices are very much at the domain of the market, being a very important competitive weapon.

In cluster SE rivalry is more likely to be based on product quality than price. It is still a sort of technical competition based on tangible aspects of the products, such as nature of the raw materials. The tradition of the companies in the business is also important.

In cluster SF, rivalry assumes a totally different nature. The balance between quality and price is the most important competitive weapon. Consistent with the nature of the products, competition is heavily based on intangible aspects of the products, such as branding, make, and status (from fashionable goods).

These competitive environments offer no obstacles to entry of other firms, what is consistent with the nature of the sector (small-firm dominated). However, the companies find difficulties with raw materials and skilled labour, which can impair the small firms' growth. Suppliers and clients have the least bargaining power of all the clusters. These characteristics make these environments the most fragmented and the most competitive of all.

6.2. Competitive Strategy Within Clusters

The competitive strategy of the successful small firms (SSFs) is compared to that of the less-successful small firms (LSSFs) in each cluster. The statistical results (frequencies)

are displayed on table 6.2.

6.2.1. Cluster SA

The Findings

Cluster SA comprises 5 successful and 10 less-successful small firms. 2 firms of this cluster did not provide sufficient information on performance so the overall performance level could not be calculated.

The successful small firms in cluster SA serve middle-class markets, whereas the less-successful small firms serve all the three types of markets, although a substantial proportion of them concentrate on the middle-class market. In terms of geographic markets or distribution of sales through the various geographic markets, the less-successful firms are far more concentrated than the successful companies. They tend to score the highest indexes of market concentration as calculated through the formula indicated in chapter V and detailed in appendices 3 and 4. As stated in the previous chapter, these indexes vary from zero to 100. A company scoring zero has no degree of market concentration and this means its output is evenly distributed along the "n" geographic markets the company serves. In the case of the survey, an index of concentration of zero means the company sells 20 percent of its output to each of the 5 possible markets namely, local, rest of the State, rest of the Region, rest of the Nation and export. An index of 100 implies that the scoring company makes the bulk of its sales to a particular market. Taking an index of 40 as a yardstick of concentration, 50 percent of the less-successful small firms and only 20 percent of the successful small firms score more than 40. This means that the less-successful firms tend to be more concentrated in terms of market than the successful companies. Regarding the distribution of sales, 30 percent of the less-successful firms and no successful firm sell more than 30 percent of their output to local markets. The less-successful firms make far more sales to local markets than do the successful firms. These firms appear to be more

TABLE 6.2: THE RESULTS OF THE COMPETITIVE STRATEGY ANALYSIS

COMPETITIVE STRATEGY	CLUSTER SA		CLUSTER SB		CLUSTER SC		CLUSTER SD		CLUSTER SE		CLUSTER SF	
	LSSF	SSF										
1. SCOPE (MARKETS):												
a) TYPE:												
LOW-INCOME	10	0	0	0	50	33	58	67	67	40	45	64
MIDDLE-CLASS	60	100	67	50	50	67	42	33	33	40	45	36
HIGH-INCOME	30	0	33	50	0	0	0	0	0	20	10	0
b) CONCENTRATION/DIVERSIFICATION:												
MORE THAN 30% OF SALES TO:												
LOCAL MARKETS	30	0	43	25	17	33	25	0	56	67	10	7
REST OF OWN STATE	30	40	14	25	50	33	50	100	22	0	38	50
REST OF OWN REGION	50	60	72	50	67	33	50	33	22	33	72	79
CONCENTRATION INDEX ABOVE 40	50	20	43	50	67	100	50	33	56	83	65	57
2. PRODUCT:												
a) SPECIALISATION/DIVERSIFICATION:												
RELATIVE PRODUCT LINE WIDTH:												
NARROWER	10	50	71	75	33	33	17	0	0	33	3	29
SIMILAR	60	50	0	0	33	67	75	100	100	33	73	71
BROADER	30	0	29	25	34	0	8	0	0	34	24	0
b) CUSTOMIZATION/STANDARDISATION:												
IMPORTANCE OF CUSTOMIZATION:												
NONE OR SMALL	30	0	29	0	20	33	9	0	33	0	28	36
MODERATE	40	20	43	0	0	0	64	0	33	33	24	14
GREAT	30	80	28	100	80	67	27	100	34	67	48	50
c) IDENTIFICATION:												
IMPORTANCE OF SERVICES:												
NONE OR SMALL	40	20	28	25	66	33	45	0	78	50	54	50
MODERATE	30	20	43	25	17	0	55	33	22	0	18	7
GREAT	30	60	29	50	17	67	0	67	0	50	28	43
IMPORTANCE OF PACKAGING:												
NONE OR SMALL	80	80	86	75	67	66	36	33	100	83	55	72
MODERATE	0	0	14	25	17	0	27	0	0	17	21	14
GREAT	20	20	0	0	16	34	37	67	0	0	24	14
d) DEVELOPMENT/INNOVATION:												
IMPORTANCE OF NEW PRODUCTS												
NONE OR SMALL	50	20	43	75	40	66	45	67	67	34	28	21
MODERATE	20	20	14	0	20	34	46	0	33	50	24	36
GREAT	30	60	43	25	40	0	9	33	0	16	48	43
e) RELATIVE QUALITY:												
INFERIOR	0	0	0	0	0	33	0	0	11	0	0	64
SIMILAR	50	50	57	75	50	33	75	67	78	33	62	36
SUPERIOR	50	50	43	25	50	34	25	33	11	67	38	0
3. PRODUCT PRICE:												
RELATIVE PRICE												
LOWER	10	25	0	0	17	33	17	33	11	67	21	71
SIMILAR	60	75	43	100	83	33	75	33	89	33	65	29
HIGHER	30	0	57	0	0	34	8	34	0	0	14	0
IMPORTANCE OF PRICE TACTICS												
NONE OR SMALL	60	20	43	25	80	33	45	33	77	80	48	14
MODERATE	30	60	29	75	20	67	27	67	23	20	41	57
GREAT	10	20	28	0	0	0	28	0	0	0	11	29
4. ADVERTISING:												
IMPORTANCE OF ADVERTISING												
NONE OR SMALL	50	100	57	100	60	100	45	0	89	83	62	14
MODERATE	40	0	14	0	20	0	46	33	11	17	35	57
GREAT	10	0	29	0	20	0	9	67	0	0	3	29

Note: SSF: Successful small firms
LSSF: less-successful small firms.

interested in more distant markets such as the state and regional markets.

The successful small firms in cluster SA are more specialised than the less-successful firms. The successful small firms product-line width tend to be smaller than, or at most, similar to their major competitors', while the less-successful firms tend to offer similar or broader product-line width. This implies that the successful small firms offer fewer products than do their major competitors. To compensate their clients for that, these firms adjust their products to customers requirements which all of them believe is important to the company's selling effort, and 80 percent of them believe it is of great importance. On the other hand, it appears that less-successful small firms do not do product customization very often and so their products would be more standardised.

The successful firms provide more services to clients than do the less-successful companies for 60 percent of them and only 30 percent of the less-successful firms believe that the provision of services is a very important instrument for the success of the company's business and selling effort. Neither the successful firms nor the less-successful small firms emphasise packaging, what is consistent with the type of products they sell.

Product development or innovation (introduction of new product), is thought to be another important instrument for the success of the company by the majority of small firms in this cluster. However it appears that this instrument is far more emphasised by the successful firms among which only 20 percent believe it is of no or small importance to the companies success as against 50 percent of the less-successful small firms.

Companies in this cluster cannot be distinguished with regard to relative product quality; all of them reported their

products are of similar or superior quality to competitors'.

All the successful companies have competitive prices, their prices are never higher than competitors', whereas 30 percent of the less-successful small firms have higher prices. Moreover the great majority of the successful small firms (80 percent) emphasise price tactics, such as price discounts, as competitive tools. On the other hand the majority of the less-successful small firms do not emphasise price tactics (60 percent).

Finally, no successful small firms place much importance to advertising and promotion, whereas 50 percent of the less-successful small firms do. These firms obviously spend more on advertising and promotion than the successful small firms.

The Successful Strategy in Cluster SA

The competitive strategy of successful small firms in cluster SA is substantially different from that of the less-successful small firms. The most distinguishing features of their strategies are presented in table 6.3. Comparing these features with the characteristics of the competitive environment in cluster SA it is evident that the competitive strategy of the successful small firms is very much consistent with the dominant aspects of the environment (table 6.4).

As mentioned earlier, one of the most important characteristics of the competitive environment in this cluster is that it is dominated by medium and large businesses. This implies that scale of production is an important factor for the successful operation of businesses in this cluster. Scale of production leads to reduced costs, competitive advantages and to increasing profits. To compensate for their reduced scale of production, the successful small firms reduce costs by not trying to do everything. They offer a relatively narrow line or group of products and they do not spend on packaging and

advertising. They also concentrate on the needs of a particular market segment (middle class) instead of trying to serve all needs.

By reducing costs, these firms work towards increasing profits. Consistent with this strategy they try to increase sales volume; the middle-class market offers the best potential for increased sales volume. They also attend larger markets than the local community and tend to have competitive prices.

Consistent with the nature of the competitive environment, where technology is very important implying high rate of product change, the successful small firms emphasise product innovation in a greater degree than the less-successful firms. The rate of product change appears to be the highest in cluster SA (Table 6.1). Consistent with that the successful small firms here seem to be the ones that most emphasise product development.

The successful small firms also try to defend themselves against the competitive forces by trying to differentiate their products through customization and provision of services which, in a competitive environment characterised by product standardisation, might allow them to achieve competitive advantage. On the other hand, the less-successful small firms try to sell the same kind of products as their major competitors' with no or low effort to differentiate these products.

The successful small firms have competitive prices. Prices in their competitive environment tend to be influenced by larger firms. Any attempt to increase prices to larger firms level would demand the firm to differentiate its offering, through, for instance, provision of better services, better quality and product customization. While the successful small firms emphasise services and customization, not all of their products are of superior quality. These firms prefer to maintain competitive prices, and hence better value to their customers, which can lead to higher volume of sales. On the

TABLE 6.3: DIMENSIONS OF COMPETITIVE STRATEGY WITHIN CLUSTERS

DIMENSIONS	CLUSTER SA			CLUSTER SB			CLUSTER SC				
	LSSF	SSF	Middle-class	Middle-class	LSSF	SSF	High-income	Low-income and Middle-class	LSSF	SSF	Middle-class
Market	All three types	Middle-class	Middle-class	Middle-class	High-income	High-income	High-income	Low-income and Middle-class	LSSF	SSF	Middle-class
Market Concentration x Diversification	Concentration (local markets)	Diversification (State and region)	Less concentrated (local and region)	Concentration (Region)	Concentration (Region)	Concentration (Region)	Concentration (Region)	Concentration (State and region)	LSSF	SSF	High concentration (Local markets)
Product Specialisation x Diversification	Diversification	Specialisation	Less Specialisation	Specialisation	Specialisation	Specialisation	Specialisation	No definite pattern	LSSF	SSF	Specialisation
Product Customisation	Low level	High level	Low level	High level	High level	High level	High level	High level	LSSF	SSF	High level
Services	Low emphasis	Much emphasis	Low emphasis	Much emphasis	Much emphasis	Much emphasis	Much emphasis	Nearly no emphasis	LSSF	SSF	Much emphasis
Packaging	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	Not relevant	LSSF	SSF	Not relevant
Introduction of new, modern products	Low emphasis	Much emphasis	Low emphasis	Much emphasis	Much emphasis	Much emphasis	Much emphasis	Some emphasis	LSSF	SSF	Nearly no emphasis
Relative Product Quality	Similar or superior	Similar or superior	Similar or superior	Similar	Similar	Similar	Similar	Similar or superior	LSSF	SSF	No definite pattern
Relative Product Price	Similar or higher	Lower or similar	Tend to be higher than competitors'	Similar	Similar	Similar	Similar	Similar	LSSF	SSF	No definite pattern
Price Tactics	Not important	Moderately important	Not definite or Not important	Moderately important	Moderately important	Moderately important	Moderately important	Not important	LSSF	SSF	Moderately important
Advertising	Some emphasis	No emphasis	Some emphasis	No emphasis	No emphasis	No emphasis	No emphasis	Some emphasis	LSSF	SSF	No emphasis

TABLE 6.3: DIMENSIONS OF COMPETITIVE STRATEGY WITHIN CLUSTERS (CONTINUED)

DIMENSIONS	CLUSTER SD		CLUSTER SE		CLUSTER SF	
	LSSF	SSF	LSSF	SSF	LSSF	SSF
Market	Low-income and Middle-Class	Low-income	Low-income	Low-income	Low-income Middle-Class	Low-income
Market Concentration x Diversification	Concentration (Region)	Diversification (State and region)	Concentration (Local markets)	High Concentration (Local markets)	Concentration (State & Region)	Less Concentrated (State & Region)
Product Specialisation x Diversification	Similar to Competitors'	Similar to Competitors'	Similar to Competitors'	No clear pattern	Less Specialised	Specialisation
Product Customisation	Low level	High level	Low level	High level	Low level	Low level
Services	Low emphasis	Much emphasis	No emphasis	Low emphasis	Low emphasis	Much emphasis
Packaging	Important	Very important	Not relevant	Not relevant	Not relevant	Not relevant
Introduction of new, modern products	Low emphasis	Low emphasis	Nearly no emphasis	Low emphasis	Much emphasis	Much emphasis
Relative Product Quality	Similar	Similar	Similar	Superior	Similar and Superior	Inferior
Relative Product Price	Similar	No definite pattern	Similar	Lower or Similar	Similar	Lower and Inferior
Price Tactics	Somewhat important	Moderately important	Not important	Not important	Some what important	Moderately important
Advertising	Low emphasis	Much emphasis	Nearly no emphasis	Nearly no emphasis	Low Emphasis	Much Emphasis

other hand, the less-successful small firms' prices are not as competitive and these firms fail to provide substantial additional benefit to their clients.

Finally, the strategy of product customization discharged by the successful small firms help them to defend themselves against powerful clients. By meeting the specific needs of their clients the successful small firms reduce their client's bargaining power turning them somewhat dependent on their products, increasing clients switching costs. Customization certainly helps the successful small firms to develop strong relationship with their clients.

In conclusion, the successful small firms of cluster SA find a competitive position where they can defend themselves against the major forces of their competitive environment. They devise a strategy that can reduce costs and increase sales volume and compensate them for their disadvantages of scale. Moreover, they spend on strategically important variables by emphasising product development and customization. Product development can place them in line with the level of product change in their competitive environment. Customization allows them to differentiate their products by adjusting them to their clients' needs meeting their specific requirements. This can lead them to an advantageous competitive position and help them to reduce the bargaining power of their clients, bringing more stability to their business.

The less-successful strategy is not at all tuned to the company's competitive environment characteristics and, in some respect, is likely to be similar to larger companies strategy. That is, the less-successful companies strategy is characterised by product line diversification, low level of customization and customer services besides high emphasis on advertising. In other aspects, their strategy lacks reasoning. While they apparently do only little effort to differentiate their products either through customization, provision of services or product development, they discharge a high-price strategy.

6.2.2. Cluster SB

The Findings

Cluster SB comprises 4 successful small firms and 7 less-successful small firms. Both the successful and the less-successful small firms serve middle-class and high-income markets, but the less-successful small firms concentrate on middle-class markets while more successful firms than less-successful firms attend the high-income markets. The successful small firms are slightly more concentrated than the less-successful firms for 50 percent of the successful small firms and 43 percent of the less-successful small firms have an index of market/sales concentration greater than 40. The less-successful small firms have their sales more evenly spread over local, state and regional markets but slightly concentrated on local and regional markets. The successful companies do not make much sales on local markets; they are more concentrated on regional markets. 25 percent of the successful small firms and 43 percent of the less-successful companies make more than 30 percent of their sales in local markets. 25 percent of the successful small firms and 14 percent of the less-successful small firms sell more than 30 percent of their output to the rest of the state.

Both successful and less-successful small firms tend to pursue product specialisation strategy, but the successful companies appear to be slightly more specialised, with narrower product line than their competitors. All the successful small firms emphasise customization of products and its importance to the company's selling effort and success. On the other hand only 28 percent of the less-successful companies believe this instrument is very relevant to the company's selling effort. Services, as a competitive weapon, is emphasised by both types of small firms but more successful small firms do so. Neither of the companies emphasise packaging .

Most of the successful small firms (75 percent) believe that product innovation is not relevant to the company's

success and selling effort, whereas 57 percent of the less-successful small firms believe this instrument is either moderately or very important for the company's selling effort. The product quality of the companies in cluster SB is either similar or superior to that of their competitors'. However, the strategy of superior quality is pursued by far more less-successful small firms than successful small firms (43 percent and 25 percent, respectively).

All the successful small firms have competitive prices and most of them (75 percent) believe that tactics such as price discounts, price promotion and credit, are important to the company's selling effort and success. On the other hand, while a substantial proportion of the less-successful small firms (57 percent) also believe so, they tend to have higher prices than their competitors (57 percent).

Finally, no successful small firms believe advertising is an important competitive instrument in their competitive environment what might imply that they do not make much use of such a strategic dimension. On the other hand, 43 percent of the less-successful small firms do believe that advertising is at least moderately important.

The Successful Strategy in Cluster SB

The competitive strategy of the successful small firms differ from that of the less-successful small firms of cluster SB in a number of dimensions, although the differences are not as striking as in cluster SA, as shown in table 6.3. The most distinguishing characteristics of the competitive strategy of the successful small firms in cluster SB is that the strategy dimensions are highly consistent among themselves and with environmental characteristics.

The successful small firms appear to adopt a concentrated, niche strategy. They concentrate on serving the needs of only few market segments with few, specialised products (they seem

to be the most specialised companies of the sample) and limited expenditure in other areas. By discharging such a strategy these firms maintain under control the level of total costs, one of the important keys to profitability in their competitive environment, not only because of disadvantages of scale, which should be lower here than in cluster SA, but mainly because of increased purchasing costs, which should be more pressing here than elsewhere since bargaining power of suppliers appears to be the greatest.

This specialised, concentrated strategy is supported by the successful small firms' emphasis on product customization and services to customers. In fact they seem to be among the firms that most emphasise service and customization and this, together with competitive prices, substantially differentiate their offer in the market, placing them in an advantageous competitive position and helping them against other major competitive forces: technical rivalry, high threat of entry and very powerful clients.

Unlike the less-successful small firms, the successful small firms do not emphasise product development (introduction of new, modern products). This is consistent with the less dynamic nature of the competitive environment in cluster SB. The successful small firms do not spend on packaging and advertising, probably an unnecessary effort in this kind of competitive environment where industrial inputs are sold. By not focusing on product development and also on advertising and packaging, the successful small firms contribute even more to keep costs down and, hence, increasing profitability.

The less-successful small firms also discharge a concentration/niche strategy although less so than the successful small firms. However this strategy does not find the needed support since the less-successful firms offer mostly undifferentiated products (low levels of customization and services) at prices that tend to be higher than competitors. It is important to note that services and product customization assume greater importance in this environment as competitive

weapon since product technical specification is a important basis of competition (table 6.1). This means that success in competitive battles is dependent on the companies' ability to meet clients specific product requirements. Moreover, since these firms fail to provide substantial level of product customization and client services, they also fail to meet the major competitive forces. Finally, the less-successful firms do not attempt to keep costs down in the way the successful small firms do, and this may be another reason for their failure.

In conclusion, the successful firms in cluster SB pursue a concentrated, low-cost, high return strategy offering few specialised products to selected market segments where unit selling-prices are high. In many instances, this strategy is similar to the successful strategy of cluster SA, specially with respect to the cost-reduction aspects. In fact this is expected since the companies in both environments face the pressure to reduce costs in order to defend themselves against the larger competitors' advantages of scale economies. This pressure is far greater in cluster SA where competitors tend to be larger. Hence, the successful firms in cluster SA also attempt to increase sales income by serving potentially larger markets. The successful firms in cluster SB, instead, serve segments where unit prices are higher.

Another distinguishing characteristic is the level of emphasis on product development/innovation. The competitive environment in cluster SA is more dynamic than cluster SB, hence the level of product change is most probably greater in cluster SA. This implies that the small firms in cluster SB face less pressure to change their products.

6.2.3. Cluster SC

The Findings

Cluster SC comprises 6 less-successful and 3 successful small firms. One of the companies clustered here did not

provide sufficient information on performance so the overall level of performance could not be calculated. Most of the successful small firms in this cluster concentrate on serving middle-class markets while the less-successful small firms try to attend both low-income and middle-class markets. The successful firms are very much concentrated with regard to geographic market. All of them showed concentration indexes above 40 and they tend to concentrate their sales on local markets where 33 percent of them make more than 50 (fifty) percent of their total sales. On the other hand only 17 percent of the less-successful small firms make more than 30 percent of their sales on local markets and none of them make more than 50 percent of sales there. The less-successful small firms make more sales to state and regional markets.

With regard to product, it can be said that the successful small firms tend to be more specialised than the less-successful small firms, although these last firms do not show a clearly definite pattern. The product-line width of the successful small firms is either narrower than or similar to competitors', while the less-successful firms are evenly distributed along the three classes of product-line width. Both successful and less-successful small firms do emphasise product customization but more less-successful small firms (80 percent) than successful small firms (67 percent) believe customization is a very important instrument for the success of the company's selling effort in this cluster. On the other hand, unlike the less-successful companies, the successful small firms are providers of services, which 67 percent of them see as a very important tool. Packaging is considered to be of no importance by the majority of firms in cluster SC; about 66 percent of the companies in each case. 60 percent of the less-successful small firms and only 34 percent of the successful small firms believe that product innovation is an important competitive tool. While the quality of the successful small firms' products vary evenly from inferior to superior than that of competitors', the less-successful small firms concentrate on similar and superior product quality.

The majority of less-successful companies (83 percent) have similar product price to competitors' and 80 percent of them do not believe that price tactics are relevant. While the majority of the successful small firms (67 percent of them) value price tactics as moderately important for the company's success, they do not concentrate in any price-position in the market. 33 percent of them have lower prices, 33 percent have similar prices and the other third have superior prices.

Finally, no successful small firms and 40 percent of the less-successful small firms emphasise advertising.

The Successful Strategy in Cluster SC

Along the lines of the successful small firms in cluster SB, the successful companies of cluster SC appear to discharge a niche, low-cost, concentrated strategy. What differ these two strategies are the local nature of the successful small firms of cluster SC and their very low level of costs. In fact, these are the most local-concentrated small firms in the entire survey sample. They do not compete in many fronts, instead they try to excel in providing high level of services and product customization to their local community and this is probably the key to their success.

The competitive environment in cluster SC is the least unstable and dynamic of the three clusters so far studied. This allows the successful small firms to succeed with such a "traditional and defensive" strategy. They protect themselves against the competitive forces and mainly against competition from larger competitors by focusing on local, traditional markets which seem to be too small to be considered by larger manufacturers.

The less-successful small firms appear to attempt to compete in many fronts: product diversification, product innovation, product quality and advertising. This is a very

expensive strategy and, probably, could be a successful one if pursued by larger firms in such a competitive environment. The high-cost side of this strategy prevent the less-successful small firms to perform better because cost control is strategic in this environment.

6.2.4. Cluster SD

The Findings

12 companies in this cluster are classified as less-successful small firms and only 3 as successful small firms. The remaining two did not provide sufficient information on performance. The successful small firms in cluster SD concentrate on low-income markets while the the less-successful companies serve both low-income and middle-class markets. The sales of the successful firms are less concentrated than that of the less-successful firms since 33 percent of the former and 50 percent of the latter score more than 40 in the market/sales concentration index calculation. Neither of them make much sales to local markets, instead they prefer more distant markets either located in their own state, where no successful small firms make less than 30 percent of their sales and 67 percent of them and 34 percent of the less-successful small firms make more than 40 percent of sales, or in their region, where 33 percent of the successful small firms and 50 percent of the less-successful small firms sell more than 30 percent of their output.

All the successful small firms and 75 percent of the less-successful small firms have similar product-line width than their major competitors'. Both types of firms perceive customization as an important instrument for the company's success with competition but this is far more emphasised by the successful firms (100 percent of them). These firms are great providers of services to customers which 100 percent of them believe to be important for the company's selling effort and

success. On the other hand, service is at most seen as moderately important by the majority of the less-successful small firms (55 percent). The majority of small firms in this cluster believe that packaging is important to the company's selling effort, but this instrument too is more emphasised by the successful firms whose majority (67 percent) believe that it is very important for the success of the company's selling effort. Product development/innovation is not considered by the majority of the successful small firms while a substantial proportion of the less-successful companies believe that this is an important instrument of the company's selling effort and success. The product quality of the majority of both successful and less-successful small firms is similar to competitors'.

The majority of less-successful small firms' prices (75 percent) are similar to competitors' and these firms do emphasise price tactics. 28 percent of them consider that price tactics are very important to the company's selling effort and success and 27 percent believe they are moderately important. The price behaviour of the successful small firms do not follow a clear pattern but these firms too emphasise price tactics.

Finally, all the successful small firms and 55 percent of the less-successful small firms believe that their advertising effort is important for the company's success. This implies that the successful small firms do more advertising than the less-successful small firms.

The Successful Strategy in Cluster SD

The most important force shaping competition in the environment of cluster SD is probably the government price control which places a ceiling on the prices companies can charge for their products. This kind of control also influences product quality since any improvement in quality would most probably lead to increased prices. Hence, both types of companies tend to have similar product price and similar product quality to competitors'.

Unable to rely on these powerful competitive weapons the successful small firms are distinguished by using other strategic variables to achieve competitive power and profitability. Their strategy consists basically on emphasising the instruments of service, customization, packaging and advertising. They also emphasise sales promotion, given the importance they attach to price tactics, that is, price promotion and discounts. If maximum selling prices are determined by government control, the use of price discounts and promotion can be more strategic than simply having similar prices to competitors'. On the whole, the strategy of the successful small firms is an aggressive marketing strategy very consistent with the type of product they manufacture and sell, i.e., mostly nondurable consumer goods, and with the major competitive forces. By discharging such a strategy, the successful small firms attempt to achieve product differentiation and, hence, customer loyalty, important strategic weapons since price is controlled by government authorities.

It may be said, however, that this is a very expensive strategy, leading to higher costs than incurred by other small firms in this cluster. To overcome such a shortcoming, the successful small firms appear to focus their attention on the needs of the low-income consumer in a wide geographic area. This can lead to higher volume of sales and reductions of production and marketing costs per unit. Besides they do not appear to spend on enlargement of their product-line and do not tend to spend on product innovation.

The less-successful small firms in cluster SD fail exactly where the successful small firms succeed. They pursue a far less aggressive strategy, doing the same things as their competitors do. Besides they discharge a low cost strategy, economising on such strategic dimensions as advertising, packaging, customization and innovation. This might imply that instead of aiming at customer satisfaction, these firms look for increased unit margins. The distinguishing features of both strategies are presented in table 6.3.

6.2.5. Cluster SE

The Findings

This cluster comprises 6 successful and 9 less-successful companies, the remaining 3 firms did not provide sufficient information on performance. Both the less-successful small firms and the successful small firms in cluster SE serve low-income and middle-class markets. The successful firms are highly-concentrated; 83 percent of them score more than 40 in the calculation of the market/sales concentration index. Their sales are very concentrated on local markets where 67 percent of them sell more than 30 percent of their output. The less-successful small firms are also concentrated on the local market although not as intensively as the successful small firms. 56 percent of them score indexes of concentration greater than 40 and 56 percent of them make more than 30 percent of their sales to local markets.

The product-line width of all the less-successful small firms is similar to competitors' and the successful small firms are distributed evenly along the narrower, similar and broader product-line width positions. All the successful firms emphasise the practice of customization of products and 67 percent of them perceive it as very important to the company's success.

Customization is also valued by the less-successful firms, although not as intensively. Neither service nor packaging appears to be used as competitive tools by the less-successful firms in this cluster, the majority of which believe these instruments are of no relevance to the company's selling effort. Packaging is not used by the successful firms either, but service is much emphasised by half of the companies./ Only low emphasis seems to be placed on product development or innovation by small firms in cluster SE but apparently the successful small firms spend more than the less-successful companies on this competitive strategy dimension; 66 percent of successful companies and 33 percent of the less-successful

firms believe product innovation is of some importance to the success of the company in the market. The majority of the less-successful small firms (78 percent) maintain the same level of product quality than their major competitors' while the successful firms tend to have either similar (67 percent) or higher (33 percent) levels of quality. This implies that the product quality of the successful companies tend to be superior than most of their competitors'.

Product price of the great majority (89 percent) of the less-successful small firms is similar to competitors'. On the other hand, the majority of the successful small firms tend to have more competitive product prices; 67 percent of them have lower prices than competitors' and 33 percent of them have similar prices to competitors'. On the whole, firms in cluster SE do not tend to emphasise price tactics.

Finally, neither of these firms appear to make much advertising which is seen as unimportant by 89 percent of the less-successful small firms and by 83 percent of the successful small firms.

The Successful Strategy in Cluster SE

The competitive strategy of the successful small firms in cluster SE differ from that of the less-successful small firms in two important aspects. First, the level of concentration of effort. Second, the product quality and price position pursued. The competitive strategy of the successful small firms is more focused or concentrated. These firms focus their attention on the needs of their local markets. They also offer higher level of service and customization than the less-successful small firms, what certainly give them competitive advantages. Moreover the successful small firms tend to offer better value to their customers, that is, high quality goods at lower prices.

By focusing on the local markets, the successful small firms also attempt to keep costs down. Besides they do not

spend much on packaging and advertising and product innovations. This guarantees their long-term profitability.

This is a neat strategy that makes perfect sense in the type of environment these firms compete. They compete with small firms only, products are very standardised, prices are determined by market forces, rivalry is mostly based on quality and price and barriers of entry are nearly nonexistent. As mentioned in the previous section, these characteristics imply that the environment in cluster SE is more competitive and fragmented than the previous ones. Consistent with that, the successful small firms place themselves in high-quality, low-price positions. Their high-quality, low-price position is also very important given the type of products they manufacture and sell. These are standardised, small industrial inputs whose buyers would be very aware of market prices. In this way, the successful small firms win competition and influence buyers to increase their quantity of purchase.

The less-successful small firms discharge a similar strategy, that is, they tend to cater for local markets and attempt to keep costs down. However, they economise on strategically important aspects such as customization, services, and product quality. With similar prices than competitors', these firms do not offer additional benefits to their clients.

6.2.6. Cluster SF

The Findings

Cluster SF comprises 29 less-successful small firms and 14 successful small firms. The number of firms which did not provide sufficient information on performance is 9. The majority of the successful small firms in this cluster attend low-income markets while the majority of the less-successful firms are distributed along low-income and middle-class

markets. In terms of sales distribution along the various geographic markets, the less-successful small firms tend to be slightly more concentrated. 65 percent of them and 57 percent of the successful small firms score concentration indexes higher than 40. Neither of these firms sell much to the local markets, rather they attend more distant markets.

These firms do not differ much with regard to product specialisation but it can be said that the successful small firms tend to be more specialised than the less-successful companies. Although a substantial percentage of both less-successful and successful small firms have similar product-line width than their competitors', far more successful small firms than less-successful small firms have narrower product-line width (29 and 3 percent, respectively), and no successful small firm has broader product-line.

Product customization does not seem to be related to performance in this cluster. However, if there is any relationship, it should be negative since customization is slightly less emphasised by the successful small firms. On the other hand, service is slightly more emphasised by the successful small firms; 43 percent of them and only 28 percent of the less-successful small firms believe that service is very important to the company's selling effort. Interestingly, neither of these companies appear to value much product packaging, despite the type of product they manufacture. However, since the great majority of the successful small firms and just over a half of the less-successful small firms do not emphasise packaging, it can be said that the successful small firms spend less than the less-successful small firms on this strategic dimension. Companies in this cluster do not seem to differ much with regard to product development either. Both types of companies emphasise it, although this strategic dimension is slightly more emphasised by the successful small firms.

The successful small firms in cluster SF tend to pursue a low-quality, low-price position, and most of the

less-successful small firms rate their product quality and price as similar to competitors'. This is certainly the most important strategic difference between successful small firms and less-successful small firms in this cluster.

Finally, advertising seems to be more emphasised by the successful small firms. 86 percent of them and only 38 percent of the less-successful companies believe that this instrument is at least moderately important for the company's selling effort. On the other hand, 62 percent of the less-successful small firms and only 14 percent of the successful small firms do not value advertising.

The Successful Strategy in Cluster SF

The successful and less-successful small firms competitive strategies do not differ much in cluster SF. Both these companies tend to cater for mass, popular markets, spread over a large geographic area. They pursue product specialisation and emphasise product development. However, these strategies do differ with regard to very important strategic dimensions - the product price and quality position and the company posture towards marketing communication.

The successful small firms are distinguished by their low-quality, low-price position and by their relatively more intense emphasis on advertising and promotion. Unlike the less-successful small firms, the successful small firms do not spend much on packaging, what would not be expected since they produce consumer goods, and do not emphasise customization. However, they do emphasise service. Perhaps their greater emphasis on advertising and promotion compensates for their shortcomings in other areas.

There is much consistency between the successful small firms strategy and their competitive environment. These firms operate under very competitive conditions where rivalry takes the form of price and quality battles. Moreover they cater for

mass, low-income markets. Under these conditions, low price and high promotion might be very efficient.

6.3. Summary and Final Conclusion on Survey Data Analysis

By means of cluster analysis, the competitive environment of the 124 small firms comprising the survey sample were grouped into 6 clusters. The prominent characteristics of each of these clusters are displayed in table 6.1. Within each cluster the competitive strategies of both successful small firms and less-successful small firms were identified and compared to one another with a view to investigating their distinguishing features, if any, and thus, testing the hypothesis number 1 of the present study. As it will be recalled, this hypothesis read

Within the same competitive environment,
the competitive strategy of successful
small firms differs significantly from
that of less-successful small firms.

The successful small firms' competitive strategy differ fundamentally from the less-successful small firms' strategy along the strategic dimensions in each of the 6 clusters. The differences between these strategies are most striking in cluster SA and the least apparent in cluster SF, as shown in tables 6.2 and 6.3. The successful small firms are distinguished by their more-intensively-focused strategies whose dimensions are highly consistent with themselves and with the dominant characteristics of their competitive environment. These findings support the hypothesis number one above.

In order to test the hypothesis number 2, which read

The competitive strategy pursued by
successful small firms differs in
different competitive environments.

the characteristics of the successful small firms competitive strategy can be compared across clusters. As the dominant

characteristics of the competitive environment vary from cluster to cluster, so does the competitive emphasis of the successful small firms. These findings support hypothesis number 2. Table 6.4 displays the competitive environment dominant characteristics and the major features of the competitive strategy of the successful small firms in each cluster.

The competitive environment in cluster SA appears to be the least fragmented and the most dynamic of all, with high rate of product change. Small firms in this environment compete with powerful, larger competitors who benefit from advantages of scale economies and can influence market prices. Rivalry is largely based on technical aspects and performance of products. Barriers to entry are higher than in any other cluster and this implies that threat of entry is low. However, new entrants are likely to be larger and more resourceful. Finally, small firms in cluster SA face powerful suppliers what implies that they might face increased purchasing costs and problems with pricing.

In cluster SA, the successful small firms are distinguished by pursuing a competitive strategy which effectively reduces unit costs and increase sales volume. With their low cost, high sales volume focus these firms find a position to defend themselves against two of the most pressing forces of their competitive environment. These are high economies of scale that benefit larger competitors, and increased purchasing costs due to powerful suppliers. Their competitive emphasis is concentrated on product innovation (introduction of new, modern product) and customization. This might also help them to defend themselves against other dominant competitive forces: the level of product standardisation, the rate of product change and, again, powerful suppliers. In fact, the rate of product change in cluster SA should be higher than in any other cluster since a 100 percent of the small firms in this cluster pointed to the importance of product/production technology in their competitive environment (table 6.1) and in no other cluster is

TABLE 6.4: MAJOR DISTINGUISHING CHARACTERISTICS OF THE COMPETITIVE ENVIRONMENT AND OF THE COMPETITIVE STRATEGY OF THE SURVEY SUCCESSFUL SMALL FIRMS IN EACH CLUSTER

CLUSTERS	CLUSTER SA	CLUSTER SB	CLUSTER SC	CLUSTER SD	CLUSTER SE	CLUSTER SF
	Industrial inputs and capital goods	Industrial inputs	Industrial inputs and capital goods	Consumer nondurable & industrial inputs	Industrial inputs	Consumer nondurable & consumer durable
MAJOR CHARACTERISTICS OF THE COMPETITIVE ENVIRONMENT	High economies of scale and product standardisation High technology leading to high product change Rivalry is largely based on products' technical aspects and performance Potential entrants are likely to be larger firms Moderate bargaining power of suppliers and clients	Lower economies of scale and product standardisation More stable, Lower rate of product change Rivalry is largely based on products' technical aspects Potential entrants are likely to be of medium size High bargaining power of suppliers and clients	High economies of scale and product standardisation More stable, Lower rate of product change Rivalry is largely based on products' performance Potential entrants are likely to be larger firms Little bargaining power of suppliers and clients	lower economies of scale and level of standardisation Stable Government price control. Rivalry is based on intangible aspects of product Potential entrants are likely to be of medium size Moderate bargaining power of suppliers and clients	No economies of scale Stable, very competitive Rivalry is largely based on products' price/quality performance Potential entrants are likely to be of small size No bargaining power of suppliers and clients	No economies of scale Stable, very competitive Rivalry is based on price/quality performance and intangible aspects Potential entrants are likely to be of small size No bargaining power of suppliers and clients
MAJOR CHARACTERISTICS OF THE SSF# COMPETITIVE STRATEGY	Low cost position: Prod. specialisation: Segmentation on middle-class markets: No unnecessary spending High sales volume: Larger geographic markets Low price position Emphasis: Product innovation Customisation	Low cost-high return: Concentration on high unit prices markets Prod. specialisation: No spending on prod. development, packaging and advertising Emphasis Customisation and services Reduce bargaining power of clients	Position: Local/niche Specialisation of products Concentration of markets Emphasis: Services and Customisation	Position: Differentiation/ specialisation on mass, popular markets Emphasis: Packaging Advertising Promotion Aggressive marketing	Position: High quality, Low cost, low price Concentration on local markets Specialisation of products Emphasis on Advertising Services	Position: Low quality, Low price Specialisation of products Emphasis on Advertising Services

that percentage as high. Consistent with that, the successful small firms in cluster SA appear to be the ones which place the greatest emphasis on product innovations (60 percent of them, table 6.2).

Cluster SB is a more fragmented and less dynamic environment than SA and, apparently, with regular rates of product change. Major competitors may also benefit from economies of scale but this should not be a major threat to the small firms since their major competitors are of medium size. As in cluster SA, rivalry is based on technical aspects and performance of products. The small firms in cluster SB are not as well protected from new competitors since barriers to entry are low. Thus, high threat of entry is an important competitive force in this environment. The small firms in cluster SB face powerful suppliers and clients and this is another important competitive force and implies that the small firms here might face both increased costs and reduced revenues.

The successful small firms of cluster SB pursue a low-cost, high-return position where unit selling prices should be higher. In their less unstable and less dynamic environment, they do not feel the pressure to invest in product innovation. This together with their high degree of product specialisation (they appear to be the most specialised firms of the survey sample) help them to keep costs down. These firms concentrate their effort on customization and services, two strategic competitive tools which help them to reduce the high bargaining power of clients in their competitive environment. Bargaining power of clients is the highest in cluster SB (table 6.1).

The governing force in cluster SC is again advantages of economies of scale which appears to be more pressing here than in cluster SA, since 90 percent of the respondents compete in sectors dominated by medium and large firms. However, the environment in cluster SC is more stable than the previous two, with lower level of product change, high product standardisation and low bargaining power of buyers and suppliers. Rivalry is also based on products performance, as in

the previous clusters. Small firms here face some threat of entry since entry barriers are few. However, because most of the respondents believe that requirements of initial capital is an important entry barrier, new entrants should be of larger size.

The successful small firms in cluster SC compete in local niches where they can avoid competition from their larger counterparts. These are the most concentrated small firms of the entire survey sample. Their competitive strength is the level of service and customization provided to clients. These are the companies that apparently most emphasise service in the survey sample.

The successful small firms in cluster SD compete on the basis of an aggressive marketing with much emphasis on product customization, services, packaging, advertising and promotion. By doing so these firms might achieve product differentiation and, hence, customer loyalty. It is important to note that these firms compete in markets of nondurable consumer goods and inputs to manufacture nondurable consumer goods where price is mostly controlled by governmental authorities. Quite appropriately, their competitive strategy consist in emphasising other strategic variables and intangible aspects of their products.

Cluster SE and SF are the most stable, fragmented and competitive of all. They are small firms dominated sectors, where major clients and suppliers have no bargaining power. Besides, new entrants are likely to be many and small since barriers to entry are negligible. The major differences between these two environments lie in the type of product and in the major features of competitive action. Cluster SE comprises produces of small, standardised industrial inputs whose purchase decisions are based on their price-quality performance. The successful small firms are distinguished by their low-cost, low-price, high-quality position in the local markets which they cater for by offering high level of customization and services.

Cluster SF comprises producers of consumer goods and competitive action is based on price, quality and intangible features of the products, hence a more competitive environment than SE. The successful small firms in this cluster are distinguished primarily by their low-quality, low-price position in mass, low-income markets. Consistent with that and with the type of product they manufacture and sell, they tend to emphasise services, advertising and promotion.

In conclusion, the results of the survey data analysis support both hypotheses, that is, successful small firms are distinguished from less-successful small firms with regard to their competitive strategy and that successful competitive strategy emphasis vary across competitive environments. In addition the results elicit that certain competitive strategy dimensions are apparently more important in certain competitive environments than others. This topic is resumed in the final chapter of this thesis.

CHAPTER VII

FINDINGS AND ANALYSIS

THE INTERVIEWS

The present chapter continues with the task of data analysis focusing now on data collected during the interviews with owner-managers of 28 small companies. The analyses follow the same methodology as in chapter VI. Thus, section 7.1 deals with the grouping of small firms according to their competitive environment characteristics by means of cluster analysis and section 7.2 studies the competitive strategies of companies within and across groups or competitive environments. Finally, section 7.3 concludes the chapter.

7.1. The Competitive Environments

The clustering procedure for grouping the 28 small firms of the interviews into similar competitive environments generated 4 clusters. These are named clusters IA, IB, IC, and ID with 9, 5, 4 and 10 small firms each, respectively. The results of the cluster analysis for the interview data are presented in appendix 8. The major characteristics of each of these clusters are presented in table 7.1.

As with the survey, the four clusters do not describe all possible environments in which the Zona da Mata small firms compete but do include the settings of the 28 small firms interviewed. Again, the small firms within a cluster do not

TABLE 7.1: COMPETITIVE ENVIRONMENT CHARACTERISTICS
OF INTERVIEW SMALL FIRMS

Clusters	CLUSTER IA	CLUSTER IB	CLUSTER IC	CLUSTER ID
No. of companies	9	5	4	10
Type of Products	Consumer nondurable & consumer durable	Industrial inputs and capital goods	Industrial inputs & consumer durable	Consumer nondurable & consumer durable
Rivalry: Sector domination	Small firms (78Z)	Large firms (80Z)	Small and medium firms (75Z)	Medium and Large firms (80Z)
Price leadership/control	Larger firms tend to influence prices (67Z)	Larger firms tend to lead prices (80Z)	Market prices	Larger firms tend to lead prices (60Z)
Technology	Important for 40Z of respondents	Important for 100Z of respondents	Important for 25Z of respondents	Important for 90Z of respondents
Important features of competitive action	Quality (100Z) Price (78Z) Branding/make (67Z) Tradition/image (56Z)	Quality (100Z) Price (80Z) Tradition/image (80Z) Warranties/delivery/ Prod. tec.spec. (60Z)	Quality (100Z) Price (100Z) Delivery (100Z) Raw material (100Z) Warranties (50Z)	Quality (100Z) Price (100Z) Delivery (90Z) Raw materials (80Z) Branding/make (40Z) Tradition (40Z)
Barriers entry/growth of firm	Skilled labour (89Z) Large E. adv. (22Z) Init. capital (33Z) Raw material (33Z)	Large E. adv. (100Z) Init. capital (100Z) Clients loyalty (80Z) Raw material (60Z)	Skilled labour (50Z) Raw materials (50Z) Gov. regul. (50Z)	Raw materials (100Z) Init. capital (90Z) Client loyalty (90Z) Large E. adv. (70Z)
Major Suppliers: Type Size	Manufacturers (89Z) SMEs (89Z)	Manuf. & Distr. (100Z) Large firms (80Z)	Manufacturers (75Z) SMEs (75Z)	Manuf. & Dist (100Z) Large firms (100Z)
Bargaining power	None/little (78Z)	Moderate/great (100Z)	None/little (100Z)	Moderate/great (70Z)
Major Clients: Type Size	Retail. & Dist. (100Z) SMEs (89Z)	Manuf. & Distr. (100Z) SMEs (80Z)	Retail. & Dist. (100Z) SMEs (75Z)	Retail. & Dist. (70Z) SMEs (100Z)
Bargaining power	None/little (89Z)	Little/moderate (100Z)	None/little (75Z)	None/little (100Z)

necessarily compete with each other, rather they compete in environments with common characteristics.

With the exception of cluster ID, the characteristics of the competitive environments in this sample are very similar to those of certain environments in the survey sample. This is not surprising since it would not be expected that small firms would enter a wide variety of competitive environments. For that reason, these are not analysed at length in the present chapter.

7.1.1. Cluster IA

Cluster IA comprises mostly manufacturers of consumer goods, both durable and nondurable. The competitive environment of cluster IA is very similar to that of cluster SF in many of the dimensions studied. It is one of the most competitive and fragmented environment of the interview sample, where small firms are prevailing. The small firms in this cluster buy from and sell to only small and medium firms which have no bargaining power.

As in cluster SF and consistent with the type of product manufactured by these firms, the most important competitive weapons are product quality and price. Competition is also based on intangible aspects of the products, such as branding, make, and company's image.

Although none of the companies in cluster IA compete in sectors characterised as large-firm sector, some of the interviewees (67 percent) believe that they compete with large firms and that these companies tend to influence the level of market price. These firms are also believed to have certain competitive advantages which 22 percent of the interviewees regard as barrier to entry and obstacle to their growth. These characteristics were not revealed by the survey.

7.1.2. Cluster IB

This cluster consists of producers of industrial inputs and capital goods whose competitive environment shares the characteristics of the competitive environment of cluster SA of the survey. It is a most dynamic and adverse environment for small firms to compete since it comprises manufacturing sectors characterised by high rate of product change and large scale of operation. This means that larger competitors can benefit from advantages of scale economies and the small firms would be at disadvantage regarding production efficiency and costs. Moreover, these competitors benefit from strong market power and ability to increase the rate of product change. In fact, all the interviewees in this cluster pointed to the large firms advantages and their difficulty of obtaining clients' loyalty as barrier of entrance into, and growth in, the sector. Moreover, price in this cluster is much influenced by the larger competitors. These characteristics confirm what was speculated about cluster SA.

Rivalry among competitors is also largely based on performance and technical specifications of products. Consistent with that, quality, price, technical specifications, tradition, and warranties are the bases of competition most mentioned by the respondents.

The uneasiness of the competitive environment in cluster IB is exacerbated by two other characteristics: the diversity of the competitors and the bargaining power of suppliers. The interviewees believe that their competitors are not only of larger size but also include multinational companies and some statals. While it was possible to identify the multinational companies as producers of mainly machinery and equipment, the respondents were not sure of which products the statals produced. These are characteristics not revealed by the survey.

The small firms in cluster IB also face high bargaining power of suppliers. These are mostly manufacturers and

distributors of large sizes. During the interviews, it was evident that the respondents perceived that bargaining power of suppliers (and also clients') increased with the suppliers (clients) size. They also perceived manufacturers to be more powerful than other members of the marketing channel. In fact, this was a critical situation for most of the interviewees. Buying from manufacturers meant the small firm would be able to get better price. But, on the other hand, they would be more exposed to the suppliers' power and capability to demand, for instances, the purchase of higher quantity than they would otherwise and in increasingly shorter intervals. In addition, this situation tended to be exacerbated in the case of some suppliers which benefited from certain degree of monopoly leaving the small firms with no alternative source of raw-materials and inputs. Given the type of inputs the small firms need, they are forced to place most of their orders with one or two suppliers. In fact, all of the small firms in this cluster purchase more than 35 percent of their industrial inputs and raw materials from their major supplier, and 60 percent of them did more than half of their purchases with the major supplier.

7.1.3. Cluster IC

This cluster comprises industrial inputs and consumer durable goods manufacturers. The competitive environment of cluster IC shares most of the characteristics of cluster SE of the survey. As in cluster SE, the companies compete in sectors where small firms are prevailing and, hence, competitors are likely to be small. However, all the respondents believe they do compete with some large firms as well. Prices do not tend to be influenced by larger firms or controlled by government authorities and suppliers and clients have no bargaining power. Moreover, barriers to entry are negligible. For these reasons, cluster IC can be characterised as a competitive and fragmented environment which distinguishes from that of cluster IA in the nature of the rivalry among competitors and type of product.

Rivalry in cluster IC most probably departs from the intangible aspects of products to more technical, tangible features such as the product technical performance. The respondents rate price, quality, nature of raw materials and services (delivery and warranties) as the most important bases of competitive action in their markets.

7.1.4. Cluster ID

This cluster also comprises producers of consumer goods but offers a unique competitive environment for small firms. It combines the uneasiness of the competitive environment of cluster IB with the nature of the competitive action of cluster IA.

Most of these firms compete in medium and large firms manufacturing sectors and some of their competitors are also multinational companies. Products tend to be standardised since scale of production tend to be large, and also undergo high rates of change. Thus, the same comments pertain here as in clusters IB and SA. That is, it is an uneasy and adverse competitive environment for small firms to compete, where the larger companies benefit from a number of advantages due to economies of scale, clients loyalty, and market leadership.

Rivalry among competitors turns to price and quality competition where quality is an extended concept to include tangible factors, such as the nature and quality of the raw materials that go into producing the products, and also intangible factors such as the company's tradition as a manufacturer and the product make or brand. The respondents also perceive the company's ability to readily meet clients' orders and delivery the goods as an important competitive advantage.

Small firms in cluster ID perceive a number of barriers to entry of new firms and growth of the existing ones. These barriers, which include large firms advantages, requirements of

initial capital, government regulations and difficulties with raw material acquisition, are of such nature that they can certainly deter entry of many new small firms. New entrants are, hence, likely to be larger firms bringing more threat to the small firms currently competing in this environment.

In addition, the small firms of cluster ID must cope with powerful suppliers. They tend to have few suppliers and these are always large manufacturers and/or distributors. The majority of the small firms in this cluster buy at least 30 percent of their raw-materials and inputs from their major suppliers and 90 percent of the interviewees believe they cannot easily contract with alternative suppliers. In case they must do so they would face administrative and operational problems, mainly regarding their products.

7.2. Competitive Strategy Within Clusters

7.2.1. Cluster IA

One of the companies grouped in cluster IA, despite much effort of the researcher, refused to allow access to financial reports and to comment on its financial performance. While information on this particular company could be useful in the competitive environment analysis, it does not help with the identification of the best strategy in this cluster. Hence, this cluster remains with 8 companies, 2 of which are classified as successful small firms and 6 as less-successful small firms.

The strategy of the successful small firms in this cluster, whose dimensions are described in tables 7.2 and 7.3, is very similar to that of cluster SF in many respects. These firms also pursue a low-quality, low-price position, are less concentrated and more specialised than the less-successful small firms and tend to provide higher level of services to their customers who they classify as low-incomers. As in cluster SF, these firms do not do product customization which

TABLE 7.2: THE RESULTS OF THE COMPETITIVE STRATEGY ANALYSIS

COMPETITIVE STRATEGY DIMENSIONS	CLUSTER IA		CLUSTER IB		CLUSTER IC		CLUSTER ID	
	LSSF	SSF	LSSF	SSF	LSSF	SSF	LSSF	SSF
1. SCOPE (MARKETS):								
a) TYPE:								
LOW-INCOME	50	100	0	33	0	0	57	67
MIDDLE-CLASS	50	0	100	67	100	100	43	33
HIGH-INCOME	0	0	0	0	0	0	0	0
b) CONCENTRATION/DIVERSIFICATION:								
MORE THAN 30% OF SALES TO:								
LOCAL MARKETS	17	0	50	0	33	0	0	0
REST OF OWN STATE	0	0	0	0	33	100	43	33
REST OF OWN REGION	33	100	0	67	100	0	71	33
REST OF COUNTRY	50	50	50	67	0	0	14	67
CONCENTRATION INDEX ABOVE 37.5	67	50	0	33	33	100	14	0
2. PRODUCT:								
a) SPECIALISATION/DIVERSIFICATION:								
RELATIVE PRODUCT LINE WIDTH:								
NARROWER	50	50	50	67	0	100	29	33
SIMILAR	17	50	0	33	33	0	28	67
BROADER	33	0	50	0	67	0	43	0
RELATIVE PRODUCT LINE DEPTH:								
SMALLER	33	0	0	33	100	100	50	33
SIMILAR	17	50	0	67	0	0	0	33
LARGER	50	50	100	0	0	0	50	34
CONSISTENCY OF PRODUCTS:								
DEGREE ABOVE 3	67	100	100	67	67	100	43	67
RAW MATERIAL CONSISTENCY	100	100	100	100	100	100	57	67
LABOUR FORCE CONSISTENCY	100	100	100	67	100	100	100	100
EQUIPMENT CONSISTENCY	50	100	100	67	33	100	43	67
DISTRIBUTION SYSTEM CONSISTENCY	83	100	100	100	100	100	100	100
PRODUCT FINAL USAGE CONSISTENCY	67	100	100	67	67	100	71	67
b) CUSTOMIZATION/STANDARDISATION:								
0-10% SALES ON CUSTOMISED PROD.	100	100	100	33	67	100	86	100
MORE THAN 10% SALES	0	0	0	67	33	0	14	0
c) IDENTIFICATION:								
ANY SORT OF BRAND/NAME IDENTIF.	33	50	100	67	67	100	71	100
ONE GENERAL BRANDNAME	17	50	100	67	67	100	57	100
VARIOUS BRANDNAMES	16	0	0	0	0	0	14	0
SERVICES:								
NONE	50	0	50	0	33	0	71	33
COMMON SERVICES ONLY	50	0	50	0	33	100	14	0
SPECIAL SERVICES ONLY	0	0	0	0	0	0	15	0
BOTH TYPES OF SERVICES	0	100	0	100	33	0	0	67
TYPE OF PACKAGING:								
NONE/VERY SIMPLE	67	0	100	100	100	100	43	67
AVERAGE	17	50	0	0	0	0	29	0
DISTINCTIVE	16	50	0	0	0	0	28	33
PACKAGING AS SELLING INSTRUMENT	33	50	0	0	0	0	57	33
d) PRODUCT DEVELOPMENT:								
NEW PRODUCT INTRODUCTION OVER								
LAST 5 YEARS:								
NONE	50	0	100	0	33	100	43	0
FEW (LESS THAN 1 PER YEAR)	33	50	0	33	67	0	14	33
ABOUT 1 PER YEAR	0	50	0	0	0	0	43	33
MANY (MORE THAN 1 PER YEAR)	17	0	0	67	0	0	0	34
PRODUCT MODIFICATION OVER								
LAST 5 YEARS:								
NEVER	33	0	100	33	0	0	86	67
RARELY	17	0	0	0	67	100	14	0
OFTEN (AT LEAST ONCE A YEAR)	50	100	0	67	33	0	0	33
3. PRODUCT PRICE:								
RELATIVE PRICE								
LOWER	17	100	0	0	33	100	14	0
SIMILAR	50	0	0	100	33	0	43	67
HIGHER	33	0	100	0	34	0	43	33
IMPORTANCE OF PRICE TACTICS								
NONE OR LITTLE	67	100	50	67	33	0	43	33
MODERATE	16	0	50	33	0	100	14	67
GREAT	17	0	0	0	67	0	43	0
4. ADVERTISING AND PROMOTION:								
COMPANY DOES ADVERTISING	33	100	50	33	33	0	57	33
COMPANY DOES PROMOTION	50	100	0	100	0	0	43	100

Note: SSF: Successful small firms
LSSF: Less-successful small firms

they think is only appropriate for micro-business (of between 1 and 10 employees). They tend to emphasise product development and believe that price tactics are not important to their selling effort.

The data collected during the interviews provide greater insight into some of the dimensions of the competitive strategy of the successful small firms. These are, product specialisation, product development and the price-quality position.

Two criteria help to understand the higher degree of product specialisation of the successful small firms in cluster IA. These are the number of product-lines or groups of products (product-line width), and the level of consistency of products within a group. Although both the successful small firms and the less-successful small firms tend to offer a large number of items per line as compared to competitors', the successful small firms offer fewer product-lines and their products are highly consistent among themselves. This means that diversity of products is low. Their products have a great degree of relationship with regard to the raw materials, type of labour force, and production equipment needed to produce them. They also share the same distribution system and perform the same group of functions. In other words, these firms keep the level of diversity of products at a minimum. On the other hand, the less-successful small firms of cluster IA are more diversified with regard to product since their products are not entirely related one another with regard to the above mentioned aspects and their product-line width tend to be broader than competitors.

Product development was studied along both of its dimensions: introduction of new products and modification of old/existing products. Both the successful and the less-successful small firms introduced new product into their product mix over the 5-year period prior to the data collection in a somewhat similar rate. However, the successful small firms also emphasised product modification what they did nearly once

TABLE 7.3: DIMENSIONS OF COMPETITIVE STRATEGY WITHIN CLUSTERS

DIMENSIONS	CLUSTER IA		CLUSTER IB	
	LSSF	SSF	LSSF	SSF
Market	Low-income and middle-class	Low-income	Middle-class	Low-income and middle-class
Market Concentration x Diversification	Concentration	Less concentration	Diversification	Lower degree of Diversification
Product Specialisation x Diversification	Lower degree of specialisation	Specialisation	Diversification	Specialisation
Product Customization	Low level	Low level	Low level	High level
Brand identification	Low emphasis	Low emphasis	Much emphasis	Low emphasis
Services	Low emphasis	Much emphasis	Low emphasis	Much emphasis
Packaging	Nearly no emphasis	Much emphasis	Nearly no emphasis	Nearly no emphasis
Product development: Introduction Modification	Low emphasis Low emphasis	Low emphasis Much emphasis	No emphasis No emphasis	Much emphasis Much emphasis
Relative Quality	Similar	Inferior	Superior	Superior
Relative Price	Similar or higher	Lower	Higher	Similar
Price tactics	Nearly not important	Not important	Moderately important	Slightly important
Advertising	Low emphasis	Much emphasis	Much emphasis	Low emphasis
Promotion	Much emphasis	Much emphasis	No emphasis	Much emphasis

TABLE 7.3: DIMENSIONS OF COMPETITIVE STRATEGY WITHIN CLUSTERS (cont.)

DIMENSIONS	CLUSTER IC		CLUSTER ID	
	LSSF	SSF	LSSF	SSF
Market	Middle-class	Middle-class	Low-income and middle-class	Low-income and middle-class
Market Concentration x Diversification	Diversification	High degree of concentration	Diversification	Higher degree of diversification
Product Specialisation x Diversification	Diversification	High degree of specialisation	Diversification	Specialisation
Product Customization	Low level	Low level	High level	Low level
Brand identification	Low emphasis	Much emphasis	Low emphasis	Much emphasis
Services	Low emphasis	Very low emphasis	Nearly no emphasis	Much emphasis
Packaging	No emphasis	No emphasis	Low emphasis	Low emphasis
Product development: Introduction Modification	Much emphasis Much emphasis	No emphasis Low emphasis	Low emphasis Nearly no emphasis	Much emphasis Low emphasis
Relative Quality	Similar	Superior	Similar or inferior	Similar or superior
Relative Price	No definite pattern	Lower	Similar or higher	Similar or higher
Price Tactics	Very important	Moderately important	Very important	Moderately important
Advertising	Low emphasis	No emphasis	Low emphasis	Nearly no emphasis
Promotion	No emphasis	No emphasis	Low emphasis	Much emphasis

a year or more often. Thus, this might help to understand the product development strategy of the successful small firms of cluster SF of the survey. As mentioned in the previous chapter, the successful small firms and the less-successful small firms did not differ much in terms of product development, as measured by the rate of new product introduction, although, apparently, this had a positive influence on performance. Product modification seems to contribute more than product introduction to performance. The modification of existing products, even if slightly, can bring about product innovation which helps these companies to follow market trends and changes in customers' desire at lower costs.

The successful small firms of cluster IA pursue low-quality, low-price position, in the same way as the successful companies of cluster SF. The interviews elicited that the successful small firms pursue low-quality, low-price segments of the general market for their particular type of product. The owner-managers of these firms had clear idea of who the market-share leaders were and avoided direct competition with them. However, they believed that in their particular segments their products were of superior quality.

Two other characteristics help distinguish the successful small firms of cluster IA. Firstly, like the successful small firms of cluster SF, they do not sell much to their local markets. However, unlike the companies in cluster SF, they do not sell much to the rest of their own state either. These firms prefer to sell to other states in their own region. These are the neighbouring states of Rio de Janeiro and Sao Paulo whose markets are within relatively short distance from Zona da Mata.

Secondly, it can be said that product identification is more emphasised by the successful small firms of cluster IA. Product identification was studied along three dimensions: branding, that is, whether the company markets its products under its own brand or sell unmarked products, the kind of services provided, if any, and the nature of the packaging and

its perceived importance as instrument of selling. While most of the less-successful small firms sell unbranded products, the successful companies have their own brands, but only for one of these companies, this can be regarded as a conscious effort to help build product identification and brand acceptance. This company has only one brand which is also its trademark with which all its products are marketed. The successful small firms also provide more services than the less-successful firms and they can provide both common and special services. Special services are those classified by the owner-managers as distinct, specialised services, which not all competitors provide. Thus, these services can help the company achieve product identification in its markets. Further, packaging is more emphasised by the successful small firms which one of them sees as an important instrument of selling.

The Successful Strategy in Cluster IA

In conclusion, the successful small firms discharge a concentrated strategy, in a low quality, low price position. They cater for low-income markets, and, unlike the less-successful small firms, do not sell much to local markets. With regards to markets, they are less concentrated than the less-successful small firms and with regard to product, they are far more specialised. Their products are highly related to one another and are modified very frequently. In addition, they highly emphasise services, advertising and promotion and dedicate some effort to packaging and branding.

7.2.2. Cluster IB

Cluster IB comprises 3 successful and 2 less-successful small firms. Again in this cluster the competitive strategies of the successful small firms and less-successful small firms differ substantially in most of the dimensions (tables 7.2 and 7.3). They differ in terms of the market segment the companies

attend, the level of geographical market concentration/diversification or sales distribution, level of customization, product development, price/quality position and advertising/promotion effort. Less substantial differences are given by the companies' emphasis on product identification (including branding, packaging and services) and product specialisation.

The successful small firms attend both low-income and middle-class markets, whereas the less-successful small firms focus their effort on the middle-income markets. The less-successful firms are more diversified than the successful ones in terms of geographical markets or sales distribution. None of these firms score more than 37.5 in the concentration index, but half of them make substantial proportion of their sales to local markets. On the other hand, the successful small firms are more concentrated on distant markets such as the rest of the region and the rest of the country and none of them make much sales to their local markets.

Both successful small firms and less-successful small firms do product customization but the successful companies emphasise it slightly more. Product development is not at all pursued by the less-successful small firms and is much emphasised by the successful firms. 34 percent of them introduced many new products (more than one a year) over the past 5 years and 67 percent of them have often done product modification. As to product price, whereas all the less-successful small firms have higher prices than competitors', the successful companies have similar prices. Price tactics are slightly more emphasised by the less-successful companies. All the less-successful firms and 67 percent of the successful small firms reported that their product quality are superior than competitors'.

These companies also differ in terms of the emphasis on advertising and promotion. Advertising is more emphasised by the less-successful small firms and promotion is only emphasised by the successful companies.

In terms of product specialisation/diversification, although the pattern of these firms are not very clear, it can be concluded that the successful companies are more specialised than the less-successful ones. With regard to product-line width (number of product groups) as compared to competitors', the successful small firms are clearly more specialised than the less-successful firms since 50 percent of the less-successful companies and none of the successful small firms reported having broader product-lines, and 67 percent of the successful small firms have narrower product-line. With regard to product-line depth the successful small firms are also believed to be more specialised than the less-successful small firms since they offer fewer number of discrete items as compared to competitors'. This conclusion is based on the fact that, although 67 percent of the successful small firms reported having similar product-line depth to competitors', none of them has broader product-line depth while all the less-successful small firms do. On the other hand, the less-successful companies' products are more related one another in terms of the 5 factors considered (raw material, labour force, production equipment, distribution system and product final usage). This gives these firms a higher degree of product consistency than the successful small firms, and hence, they are more specialised than the successful firms according to this criterium. On the whole, since the dimension of product specialisation or diversification is measured along the three criteria just mentioned, it can be concluded that the successful small firms are more specialised than the less-successful firms with regard to products.

These companies also differ slightly in terms of the strategy with which product identification is sought. The less-successful companies sell only branded products but 33 percent of the successful firms sell unmarked products. Packaging is not emphasised by either of them, and neither are its selling functions perceived by these companies. However, services are far more emphasised by the successful small firms. All of them and only 50 percent of the successful small firms provide customer services. Moreover, the successful small firms

provide both common and special services and the less-successful firms provide only common services, that is, services that, in the judgement of the interviewee, any other competitor would provide. Hence, since identification can be sought through either of these means (branding, packaging, services) and since they are not weighted, it is not possible to conclude which of the two types of companies place greater emphasis on identification. Rather, the successful small firms seek identification through services and the less-successful small firms through branding.

The successful Strategy in Cluster IB

As it has been stated, the competitive environment of cluster IB shares most of the characteristics of cluster SA of the survey, as it could be expected, the competitive strategy of the successful small firms of cluster IB, just described, resembles the successful strategy of cluster SA in most of the strategic dimensions. It will be recalled that the successful small firms of cluster SA pursued a low-cost position, which was characterised by product specialisation, segmentation on middle-class markets and reduction of spending on matters such as packaging and advertising. These companies also pursued a high-sales volume position implied by their focus on larger geographical markets (geographical diversification) and low prices. In addition they emphasised product innovation and customization and services to customers. According to the discussion in the previous section of this chapter, with the exception of segmentation on one type of market, these are the characteristics of the competitive strategy discharged by the successful small firms of cluster IB as well.

Unlike the less-successful small firms of cluster IB, the successful companies tend to emphasise product customization, service to customers, including special, differentiated services, and product development in both its dimensions, that is, introduction of new product and modification of old

products. They also have competitive prices. These characteristics together help them to defend themselves against major competitive forces in their environment, viz, high rate of product change, product standardisation and large enterprises influenced prices. By attending potentially larger markets (low-income and middle-class markets, regional and national), they try to increase sales volume and hence reduce unit costs.

As stated earlier, cost is an important strategic issue in this environment. With their level of product specialisation, attempt to increase sales volume and savings on packaging branding and advertising, the successful small firms pursue a low-cost position in the lines of the successful small firms of cluster SA.

7.2.3. Cluster IC

This cluster comprises 4 companies, only one of which is classified as successful small firm. This company's competitive strategy differ from the less-successful small firms strategy along the following dimensions.

Both the successful company and less-successful small firms cater for middle-income markets. The SSF is highly concentrated in terms of geographical market; it makes the bulk of its sales to state market, not including its local markets. On the contrary, the less-successful small firms are much diversified with regards to its geographical market: 33 percent of them make more than 30 percent of their sales to local markets, 33 percent of them to the rest of the state markets and all of them sell more than 30 percent of their output to the rest of their region.

The SSF is also highly specialised with regards to its products. Its product-line width is narrower than, and the number of products per line is smaller than, major competitor's. In addition, products are highly related to each

other and this leads to a high degree of consistency of products. On the other hand, the less-successful small firms' products are not as consistent and their product-line width tend to be broader than competitors'.

The successful firm does not emphasise customization and sell only branded products. On the other hand, not all less-successful small firms sell branded goods and some of them tend to emphasise customization. Service is not much emphasised by these firms since the successful company provides only common services and only 33 percent of the less-successful small firms provide both special and common services. The remaining either provide only common services or no service at all. Packaging is not emphasised by companies in this cluster.

Product development is slightly more emphasised by the less-successful small firms. Over the 5-year period under consideration, only 67 percent of the less-successful small firms introduced new products (less than one product per year) but all of them did product modifications. On the other hand, the successful small firm did not introduce any new product and only rarely did product modifications.

The successful company has lower product price and superior product quality than competitors'. The price-quality position of the less-successful small firms are not very definite. One of them has lower price, the other one has similar price and the third one has higher prices. Two of them rate their product quality as similar to and one of them rate as superior than competitors'.

Finally, these companies do not emphasise packaging or advertising and promotion. Only one of the less-successful small firms claim to do advertising.

The Successful Strategy in Cluster IC

It will be recalled that the competitive environment of Cluster IC shares some of the characteristics of the

competitive environment of cluster SE of the survey. Accordingly, the successful company competitive strategy of cluster IC appears to resemble the successful strategy of cluster SE. In that cluster, the characteristics that most distinguished the successful small firms from the less-successful ones were their level of concentration of effort and their product quality and price position. In cluster IC, the successful small firm is distinguished from the less-successful companies for its higher degree of concentration, in terms of geographical market or distribution of sales, and also for its product quality and price position, that is, this company offers better value to their customers with high-quality products and lower prices.

While the level of product specialisation of the successful firms of cluster SE was not very clear, in cluster IC the successful company is clearly more specialised than the less-successful firms. This company has both narrower product-line width and smaller number of products per line than its major competitors. In addition, its products are very related one another. This indicates that the successful firm in cluster IC definitely discharges a more focused strategy than the less-successful small firms.

The successful small firms of cluster SE attempted to keep costs down. In the same vein, the successful company of cluster IC discharges a low cost strategy. Besides pursuing a highly concentrated, focused strategy, this firm does not spend in product development, packaging and advertising and promotion. Unlike the successful small firms of SE, it also does not emphasise customization and service. While this helps to reduce costs, thus ensuring long-term profitability, it might prevent the companies from achieving the competitive advantages which the successful small firms of cluster SE are likely to achieve.

7.2.4. Cluster ID

This cluster comprises three successful small firms and 7 less-successful small firms all of which attend both low-income and middle-class markets. Neither of them sell much to their local markets, instead, they cater for more distant markets such as the regional markets (excluding the state market) in the case of the less-successful small firms, and the national markets (excluding the regional market), in the case of the successful small firms. All of them are very diversified with regards to geographical markets, but the successful small firms tend to be more diversified than the less-successful small firms.

With regards to product, the successful small firms are more specialised than the less-successful small firms. This is clearly indicated by two of the three criteria used to measure specialisation: the relative product-line width and the degree of consistency of products. 43 percent of the less-successful small firms and none of the successful small firms have broader product-line width than competitors'. In addition, the successful small firms' products are more related to each other than the less-successful small firms'. As to the third criterium, that is, relative product-line depth, the pattern of the successful small firms is not very clear. However, since 50 percent of the less-successful small firms and only 34 percent of the successful companies have larger number of products per line than competitors, it can be inferred that the successful small firms are more specialised than the less-successful ones with regards to the third criterium as well.

On the whole, product customization is more emphasised by the less-successful small firms, 14 percent of them indicated that the selling of customised products account for more than 10 percent of sales value. Branding is more emphasised by the successful small firms, all of which sell only branded products. They have only one, general brandname, which is also a trade mark. Unlike the less-successful small firms, the

successful companies also emphasise service. 67 percent of the successful small firms provide both special and common services to clients while 71 percent of the less-successful small firms provide no services at all. Packaging is not much emphasised by the companies in this cluster. 57 percent of the less-successful small firms and 33 percent of the successful small firms value packaging as a selling instrument.

Product development is more emphasised by the successful small firms which concentrated on product introduction rather than product modification. All the successful small firms and 57 percent of the less-successful small firms introduced new products over the 5-year period before the data collection. On the other hand, 67 percent of the successful small firms and 86 percent of the less-successful small firms did no product modification or innovation over the same period of time.

The successful small firms rate their product quality as similar or superior than competitors', and their product prices as similar or higher than competitors'. On the other hand, the less-successful small firms rate their product quality as similar or inferior than competitors' and yet the majority of them have similar or higher prices than competitors'. Only 14 percent of the less-successful small firms rate their prices as lower than competitors. The interviews elicited that all the companies in this cluster faced great difficulties with raw material supplies and the majority of them had higher production costs than most competitors given at least two major factors: higher raw material costs and higher production equipment maintenance costs. Since, among small businesses, price decisions are usually based on cost-plus approach, this might explain the higher selling prices of the companies in this cluster.

Finally, the successful small firms believe that price tactics are at most moderately important to selling effort (67 percent), they do not emphasise advertising but do emphasise sales promotion. 57 percent of the less-successful small firms value price tactics, and 43 percent of them believe that

these tactics are of great importance to the company's selling effort. Advertising and promotion is not overwhelmingly emphasised by them, only 57 of them do advertising and 43 percent of them do sales promotion.

The successful strategy in cluster ID

The successful small firms of cluster ID discharge an expensive, aggressive competitive strategy, probably the most aggressive of all the sample. These companies clearly pursue a high quality, high price position, distributing a specialised, narrow product-line to a potentially large market-area. This strategy is backed by an aggressive marketing given the successful small firms' emphasis on branding, services, product development (introduction of new products) and sales promotion.

7.3. Summary and Final Conclusions on Interview Data Analysis

4 clusters were generated from the interview data on competitive environment. The specific characteristics of these clusters are shown in table 7.1. Within each cluster, as in chapter VI, the characteristics of the successful small firms competitive strategy were compared to those of the less-successful small firms. The results also appear to support the hypothesis number one of this exploratory study, that is, within competitive environment subgroups (clusters) the competitive strategy of the successful small firms differs from that of the less-successful small firms'. The characteristics of both successful and less-successful strategies in each cluster are shown in tables 7.2 and 7.3. The differences are striking in all clusters but in cluster IA where the competitive strategies of the companies differ along only few dimensions (table 7.3).

Table 7.4 summarises the major characteristics of the competitive environment and the successful strategies in each cluster. This table provides a means to help test the hypothesis number two of this research which states that the nature of the competitive strategy discharged by the successful small firms varies across competitive environments. It is evident from this table that the interview data also appear to support this hypothesis. As the major or dominant characteristics of the competitive environment change from cluster to cluster, so does the competitive emphasis of the successful small firms.

Cluster IA and IC are two fragmented, very competitive environments. The companies compete mainly with small firms and in sectors where SMEs are prevailing, hence, economies of scale are not an important competitive force. In addition, bargaining power of suppliers and clients are negligible. However, rivalry can be intense and take the form of price competition. In cluster IA, which comprises producers of consumer goods, rivalry is based on the product price/quality performance and intangible features. The successful small firms are distinguished by their low price, low quality position and their highly focused strategy. They are very concentrated with regards to markets and specialised with regards to product. In addition, they focus their efforts on the needs of the low-income market and emphasise service, product modification and packaging.

In cluster IC, which comprises producers of industrial inputs and consumer-durable goods, rivalry is also based on product price/quality performance. The concept of quality includes not only intangible but also technical features of the product such as nature of raw material, product specifications and the amount of product service such as warranties and delivery facilities.

High quality, low price is the competitive emphasis of the successful firm of cluster IC. This company offers extremely good value to its customers, who, given the type of product

they buy, are very aware of product price changes and differences. To compensate for its higher costs with product quality and for its lower margin, this company discharge a low-cost, highly focused, concentrated strategy, characterised by market concentration, segmentation and product specialisation. In fact, this appears to be the most specialised successful small firm of all the sample. In addition, this company does not spend on product development, advertising and promotion, services and customization. this helps to keep costs down.

TABLE 7.4: MAJOR DISTINGUISHING CHARACTERISTICS OF THE COMPETITIVE ENVIRONMENT AND COMPETITIVE STRATEGY OF THE INTERVIEWS SUCCESSFUL SMALL FIRMS IN EACH CLUSTER

CLUSTERS	CLUSTER IA	CLUSTER IB	CLUSTER IC	CLUSTER ID
MAJOR FEATURES OF THE COMPETITIVE ENVIRONMENT	Consumer durable & non-durable goods	Industrial inputs and capital goods	Industrial inputs and consumer durables	Consumer nondurable & consumer durable
	No economies of scale	High economies of scale and product standardisation	No economies of scale	Economies of scale and standardised products
	Stable, very competitive	High technology and rate of product change	Very stable and competitive	High rate of product changes
	Rivalry is based on price/quality performance and intangible features	Rivalry is largely based on products' technical aspects and quality performance	Rivalry is based on product quality/price performance and technical features	Rivalry is based on product price/quality performance and intangible features
	Potential entrants are likely to be small firms	Potential entrants are likely to be larger companies	Potential entrants are likely to be small firms	Potential entrants are likely to be larger companies
	No bargaining power of suppliers and clients	Moderate bargaining power of suppliers and clients	No bargaining power of suppliers and clients	High bargaining power of suppliers and none of clients
SSFs COMPETITIVE STRATEGY	Position: Low quality, Low price	Position: High value, High sales volume:	Position: Low price, High quality	Position: High price, High quality
	Market concentration Prod. specialisation	Competitive prices High quality Larger market-area	Market concentration Prod. specialisation	Market diversification Prod. specialisation
	Emphasis: Product modification Advertising Services Packaging	Low cost: Low/no spending on packaging, brandin, advertising Emphasis: Product development customization, services	Low cost: No spending on: Prod. development, Services, Customization, Advertising and Promotion	Emphasis: Branding, Services Prod. introduction Sales promotion Aggressive marketing

The competitive environment of cluster IB is one of the most hostile for small firms to compete. Economies of scale, product standardisation, high rate of product changes and high bargaining power of suppliers and clients are the most important forces shaping competition in this environment. To defend themselves against these forces, the successful small firms find a competitive position characterised by high value, high sales volume and reduced costs.

These firms offer high value to their customers since they provide high quality products at similar/competitive prices. They cater for a diversified geographical market which is potentially large and this, coupled with the high value offered, can lead to increased sales volume, and, in turn, reduced costs per unit. Cost are also kept down by means of their policy of product specialisation and savings on packaging, branding and advertising. Reduced costs help these firms to defend themselves against larger firms advantages of scale economies.

The successful small firms of cluster IB also emphasise product development. These firms are among those that most frequently do product introduction and modification. This helps these companies to counteract the force of high product change. In addition, the successful small firms are also among those that most emphasise customization and services which help them to differentiate their products and defend themselves against the forces of product standardisation and bargaining power of clients.

Cluster ID offers a unique environment. It comprises characteristics of both cluster IB and IA and is characterised by presence of economies of scale, high rate of product change, high level of entry barriers. The small firms of this cluster are producers of consumer goods and compete in medium and large firm sectors where new entrants are likely to be of larger size. Rivalry, however, can be intense since the major features of the competitive action includes quality, price and intangible and tangible aspects of the products such as services, branding, make and tradition (which can be seen as

company image) and raw material nature.

The successful small firms in cluster ID are distinguished by their emphasis on product quality, product introduction and marketing (branding, services and sales promotion). This might well be an expensive strategy and might explain the higher prices charged by these companies. Moreover, this is an aggressive strategy not usually discharged successfully by small firms since it might imply that these successful small firms are competing head-on with larger, more resourceful companies.

These results should be seen with caution, however, given the very small number of cases per clusters and, within these, the rather small number of successful small firms, mainly in cluster IC where only one successful small firm was identified.

Despite the above limitations, the interview data can be useful to clarify some issues. For instance, extrapolating from cluster IC, which is a similar competitive environment to cluster SE, it is possible to argue that the successful small firms of Cluster SE are more specialised than the less-successful companies with regard to products. Moreover, the product specialisation and product development policies of the successful small firms of cluster SA can be made clearer by extrapolating from IA, a similar competitive environment to SF, where successful small firms are more specialised than the less-successful companies and emphasise product modification instead of product introduction.

In conclusion, the results of the interview data analysis also appear to contribute to support the hypotheses of this research. It was found that the competitive strategy discharged by the successful small firms differed from that pursued by the less-successful small firms along many dimensions in each of the 4 clusters originated by the interview data. The successful small firms strategy is frequently distinguished from the less-successful small firms strategy by its focused, concentrated nature. In addition, they create definite

competitive emphasis which varies across clusters and are consistent with the type of environment they compete.

CHAPTER VIII

C O N C L U S I O N S

8.1 Discussion of findings

This exploratory study has been carried out to test two hypotheses. Hypothesis I was concerned with whether the competitive strategy of successful small firms differed from that of less-successful small firms' when these firms operated within the same competitive environment. Hypothesis II was concerned with whether the successful small firms' competitive strategy differed across groups of competitive environment. The testing of these hypotheses entailed the identification of groups of competitive environment by means of cluster analysis and the study and comparison of the contents of these companies' competitive strategies within and across these groups. This was carried out with data collected by means of mailed questionnaires (125 companies) and interviews (28 companies).

Six clusters were originated from the survey data and four clusters from the interview data. These yielded seven distinct competitive environment groups (clusters) since three clusters originated from the interview data were considered very similar to other three of the survey data. This is not surprising since it can be expected that small firms would not enter a wide variety of competitive environments, given their intrinsic resource limitation and strategic constraints.

The competitive environment groups identified in this study varied from more unstable, less competitive and adverse environments for small firms to compete, to more stable, fragmented, and competitive ones. In all groups strong difference emerged between the less-successful and the successful small firms' competitive strategies. The differences were more striking in the more unstable, less competitive and

adverse environments such as SA, IB, SB and SC, and less so in the more stable, fragmented environments such as SE, IC, SF and IA. Perhaps, as argued by Prescott (1986), fragmented environments lend themselves to fewer strategic options than other environments.

This study concludes that the competitive strategies of successful small firms and less successful companies differ with regard to the competitive emphasis which, in the case of the successful firms, is always consistent with the prominent competitive forces or characteristics of their competitive environment. Hence, responsiveness to major competitive environment characteristics marks successful small firms in this study. These results help to support the hypotheses and are consistent with theory and other studies (Porter, 1980; Woo and Cooper, 1981; Chaganti, 1987).

In the more unstable, dynamic, less competitive and adverse environments the successful small firms attempt to reduce costs by limiting their expenditures on less important strategic variables, and this most probably helps them to compensate for disadvantages of scale. They also emphasise relevant strategic dimensions and this can help them defend themselves against powerful competitive forces in their environment. For instance, in groups (clusters) SA and IB which are industrial environments dominated by large firms and apparently the most unstable, dynamic, less competitive and adverse environments in this study, the successful small firms pursue a strategy that can lead to reduced costs and increased sales volume which can minimize disadvantages of reduced scale and increased purchasing costs. This strategy is complemented by emphasis on product development and product customization which also help them against other competitive environment threats: high rate of product change and bargaining power of clients.

The successful small firms of cluster SB also feel the pressure to reduce costs in an environment where the most pressing competitive forces are bargaining power of clients and

suppliers and technical rivalry. Consistently they seem to be the most specialised firms and are among the ones that most emphasise customization and service.

Cluster SC is also a dynamic and industrial environment dominated by large firms. Apparently it is a less dynamic environment than SA but small firms may face greater disadvantages of scale. Small firms operating under these conditions seem to succeed by discharging a concentrated, niche strategy. They cater for nearby markets, offering relatively narrow product line, with traditional, standardized products and limiting their spending on packaging, product development, advertising and promotion.

In more fragmented, competitive environments the competitive strategy of the successful small firms is centred on the product price and quality dimension. In clusters SE and IC, also industrial clusters, successful small firms look for a high-quality, low or competitive-price position in their nearby markets. In clusters SF and IA, where firms manufacture consumer goods, successful small firms focus their efforts on low-quality, low-price complemented by emphasis on advertising and promotion, targeting their efforts to low income markets.

Finally, cluster SD can be placed mid way between the dynamic, unstable environments and the fragmented, competitive ones. This cluster comprises producers of nondurable consumer goods and industrial inputs and is distinguished from the others by strict price control. The successful small firms in this group compete in many fronts: customization, service, packaging, quality, advertising and promotion.

This study also suggests that generalisations regarding the best strategies for small firms should be interpreted with caution, at least with regard to small firms operating in the area of the study or in Brazil. Table 8.1 provides a comparison of the specific findings of this study with the "success factors" identified in the literature and discussed in chapter III. For instance, it has been widely suggested that small

TABLE 8.1: Specific Findings of the Study

Theory Recommendations	Findings of the Study
<p>• Concentrated, niche strategy:</p> <ul style="list-style-type: none"> - Geographic concentration - Local markets - Non-mass, limited markets 	<p>(Measured as sales distribution)</p> <ul style="list-style-type: none"> . SSFs are more concentrated than LSSFs in clusters SB, SC, SE, IC. . SSFs are less concentrated than LSSFs in clusters SF, IA. . SSFs are very diversified in clusters SA, IB, SD, ID. <hr/> <ul style="list-style-type: none"> . Only the SSFs of clusters SC & SD definitely cater for local markets. . Other clusters: LSSFs tend to sell more to local markets. <hr/> <p>(Measured in terms of income distribution)</p> <ul style="list-style-type: none"> . Only the SSFs of cluster SB cater for non mass markets . Other clusters: SSFs attend low income or mid class markets.
<p>• Product specialisation: (specialised, narrow product-line)</p>	<ul style="list-style-type: none"> . SSFs of nearly all clusters pursue product specialisation, but as a distinguishing strategic dimension only in clusters SA and IB.
<p>• Product customization</p>	<ul style="list-style-type: none"> . In clusters SA, IB, SD & SE it is more emphasised by SSFs. . In cluster SC it is more emphasised by LSSFs. . In clusters SF & IA both SSFs and LSSFs place low emphasis on it.
<p>• High level of services</p>	<ul style="list-style-type: none"> . Services are more emphasised by SSFs in all clusters.
<p>• High-quality, low-price</p>	<ul style="list-style-type: none"> . Clusters SE & IC: SSFs pursue high-quality, low-price position. . Clusters SF & IA: SSFs pursue low-quality, low-price position. . Clusters SA & IB: SSFs tend to pursue high-quality, competitive-price position. . Other clusters: the majority of companies claim similar-quality, similar-price position
<p>• Low advertising</p>	<ul style="list-style-type: none"> . Clusters SB, SF & IA: Advertising is more emphasised by SSFs. . Clusters SA, IB, SD & SC: advertising is less emphasis by SSFs. . Clusters SE, IC & ID: neither SSFs nor LSSFs firms emphasise it.
<p>• Product development</p>	<p>(New product introduction)</p> <ul style="list-style-type: none"> . Clusters SA, IB & ID: product introd. is more emphasised by SSFs. . Cluster SF: Both SSFs & LSSFs emphasise it. . Clusters SB, SC, SD, SE & IA: neither SSFs nor LSSFs do it. . Cluster IC: product introduction is more emphasised by LSSFs. <hr/> <p>(Product modification)</p> <ul style="list-style-type: none"> . Clusters IA & IB: Product modification is more emphasised by SSFs. . Cluster IC: Product modification is more emphasised by LSSFs. . Cluster ID: neither SSFs nor LSSFs emphasise it.

firms should follow a concentrated, niche strategy, catering for local, non-mass, limited markets (Kotler, 1980; Finley, 1980; Richers et al, 1967; Davis and Kelly, 1972; Brannen, 1978). According to the results of this study, this strategy is not always the one adopted by the successful small firms. Firstly, market concentration, measured in terms of geographic sales distribution, does not always mark successful small firms. In clusters SA, IB, SD and ID the successful small firms tend to pursue market diversification and this can be regarded as an attempt to reduce unit costs by increasing market coverage and hence sales volume, and this might well lead to compensation for disadvantages of scale. In other clusters, the majority of small firms, both successful and less-successful small firms, seem to pursue market concentration, so this, by itself, does not appear to mark the successful firms in these clusters. It can be argued, however, that the intensity with which this strategy is pursued marks the difference since, except in cluster SF (and IA which is similar to SF), successful small firms tend to be consistently more concentrated than less-performing small firms. This argument is based on the fact that the percentage of successful small firms whose market concentration index is above 40 is greater than the less-successful small firms' in these clusters (see table 6.2 of chapter VI). Thus the successful small firms of clusters SC and SE (and its similar environment IC) are the most concentrated of the sample.

Secondly, among the successful small firms the only ones to cater for local markets are those of clusters SC and SE. In other clusters, the less-successful small firms tend to sell more to local markets than do the successful companies. These firms, instead, seem to prefer more distant markets. The small firms preference for distant markets and for market diversification has been documented by previous research in Brazil (Figueiredo, 1979; Dutra et. al., 1986).

Thirdly, the majority of companies in this study appear to serve mass markets rather than non-mass markets. The only exception to that appear to be the successful small firms of

cluster SB which seem to concentrate on high-income markets. This and the argument of the last two paragraphs lead to the conclusion that only the successful small firms of clusters SB, SC and SE adopt a concentrated, niche strategy.

It is also frequently mentioned that small firms benefit from the provision of customised product (e.g. Allen, 1983; Brannen, 1978) and specialised narrow product-line (e.g. Woodward, 1976; Kotler, 1980; Franklin and Franklin, 1982). The results of this study do not suggest that such a generalisation can be made. Product customization can help to distinguish the successful small firms from the less-successful ones only in certain environments (SA, IB, SB, SD and SE) where it appears to be an important strategic dimension to reduce the bargaining power of powerful clients or to complement a focus, niche strategy. In other environments the small firms cannot be distinguished with regard to product customization (SC, SF and IA) where it is a strategic option of both types of firm. Chaganti and Chaganti (1983) have documented that both profitable and unprofitable firms offered mostly customised products.

In most of the competitive environment groups (SA, IB, SB, SC, IC, SF, IA and ID) the successful small firms do pursue product specialisation but only in few occasions (SA, IB, IC and ID) it can be said that this is a strategic distinction between successful and less-successful small firms. In other occasions, either both successful and less-successful small firms pursue product specialisation (SB, SF and IA) or a definite comparison cannot be made (SC, SD and SE).

With regard to the price-quality position, it is commonly suggested, and sometimes empirically verified, that small firms should provide high quality goods (e.g. Brannen, 1978; Cezario, 1979; etc.) and compete on the basis of low price (e.g. Brannen, 1978). In this study the behaviour and importance of such strategic dimensions appear to differ as the environment varies from unstable, dynamic, less competitive to stable, more competitive. On the whole, the quality-price position of

companies in the less competitive environments does not vary much. These companies tend to be positioned in similar or superior quality and similar or higher price positions, the majority of which is placed on a similar-quality, similar-price position. This can be explained by the argument that these companies sell mostly industrial inputs and purchase decisions for this type of products are based on product performance, services and cost, as well as past experience (Woo and Cooper, 1982). Thus the price-quality position should be equally important for every company but would not be as strategically important as other variables such as services, customization or product development. Specifically, it appears that the successful small firms of clusters SA and IA tend to pursue a high-quality, competitive-price position as a matter of strategy. In cluster SB the general situation applies; in cluster SC a definite comparison cannot be made and in cluster SD, due to government control, price is not a strategic variable.

In the more competitive environment the quality-price position seem to have a totally different character since it is among the most important strategic dimensions. The successful small firms of clusters SE and IC are distinguished by their low-price, high-quality position and in clusters SF and IA, successful small firms pursue a low-price, low-quality position. SE and IC comprise producers of industrial inputs whose buyers are obviously aware of market price and quality levels, so these firms try to increase product value to customers. SF and IA comprise producers of consumer goods and attend low income, mass markets.

Brannen (1978) suggests that small firms should attempt to emphasise personal selling rather than advertising. This study did not investigate personal selling but concludes that advertising can sometimes be an important strategic dimension. The results appear to indicate that advertising can aid performance in consumer goods markets such as clusters SD, SF and IA where successful small firms are distinguished by their greater emphasis on advertising. In industrial clusters

advertising might either be irrelevant (SE and IC) or indeed work against performance (SA, IB, SB, and SC) by increasing total expenditure. Obviously, end-consumer purchasing decisions can be easier influenced by advertising than industrial buyers'. In the latter case, as mentioned earlier in this thesis, purchases are governed by contracts and purchasing decisions are based on technical criteria and so, as suggested by Woo and Cooper (1981) advertising in this case might be less important. Cluster ID, which also comprises consumer goods producers, appears to be an exception to that. Here successful small firms limit their spending on advertising although they emphasise promotion.

Both high and low product change and innovation have been found to be positively associated with performance (Figueiredo, 1979; Chaganti and Chaganti, 1983; Woo and Cooper, 1982; Chaganti, 1987). In the present study, product change and innovation was measured as rate of new product introduction and rate of old product modification and denominated product development. Emphasis on product development is apparently an important strategic dimension in unstable and dynamic environments, with high rate of product change, and in consumer goods markets. The successful small firms of clusters SA, IB, IA, ID and SF all emphasise product development. SA, IB and ID are very dynamic environment and the successful small firms' emphasis on product development is not only strategic but a distinguishing factor. In cluster SF both less-successful and successful small firms do emphasise product development, as measured by the rate of new product introduction. Based on the results from cluster IA, which is similar to SF, the distinguishing factor might be the rate of modification of old products, which was not investigated in SF.

In clusters SB, SC and SD product development might be irrelevant. These are less dynamic and unstable environments where neither successful firms nor less-successful firms emphasise product development. In clusters SE and its similar IC, very stable environments, expenditure on product development might either be irrelevant or indeed work against

performance, since the less-successful small firms of cluster IC tend to place greater emphasis on both new product introduction and old product modification.

Unfortunately, the results about product development are not easily directly compared to those of previous research. Figueiredo (1979) and Chaganti and Chaganti (1983), who found that product change and innovation could be positively related to performance in small firms, did not consider the competitive environment circumstances. Chaganti (1987) found that the relationship was negative in growth industries. The present study does not take into consideration the market growth rate. However, it is possible to conclude that growth industries can be very dynamic and turbulent environments with high rate of product and process changes followed by intense fight for market share (Woo and Cooper, 1982). In this case, the results of the present study do not confirm Chaganti's. On the other hand, Woo and Cooper (1982) found a negative relationship in environments with low product and process change. These results appear to be confirmed by the results of the present study since they indicate that in stable environments product change and innovation might be either irrelevant or negatively related to performance.

Finally, this study also concludes that certain strategic dimensions appear to be more relevant in certain environments than others. This is a conclusion which follows from the previous two. For instance, in most of the clusters, successful small firms are distinguished by their higher emphasis on product customization and this seems to lead to the conclusion that customization aids performance in these clusters. But it can also be said that customization is more relevant where a greater percentage of successful small firms tend to emphasise it (see table 6.2 of chapter VI). Thus customization is apparently the most needed in clusters SD and SB, and the least in SF. In the same vein, services to customers appear to be the most relevant in clusters SD and SA, and the least in clusters SF and SE. Table 8.2 in the following page complements the argument.

TABLE 8.2: Relative importance of certain Strategic Dimensions

Strategic dimensions	Most needed	Least needed
Product specialisation	Cluster SB	Cluster SF
Market concentration	SC, SE, SF	
Product customization	SB, SD, SA	SF
Services to customers	SC, SB, SA	SF
Packaging	SD	SB
Product development	SA, SF	SB, SC
High quality	SE, SA	SF
Low price	SF, SE	SB, SA
Advertising	SD, SF	SA, SB, SC

In summary, the major conclusions of the present study are: a) The competitive strategy of successful small firms differs from that of the less-successful small firms; b) the successful small firms develop competitive strategies whose emphasis are consistent with prominent competitive environment characteristics and this distinguishes them from less-successful small firms; c) generalisations and previous recommendations regarding successful small firms competitive strategy should be interpreted with caution; and, d) certain strategic dimensions appear to be more relevant in certain competitive environments than others. Certainly this study has many limitations and further research is needed to improve the accuracy of these results. These topics are addressed next.

8.2. Further considerations on, and limitation of the study.

It is important to note that the major objective of this research work was to carry out an exploratory investigation on small firms competitive strategy. The research, thus, has dealt with the content rather than the process of strategy formation, focusing on dimensions of competitive strategy, and consequently, the competitive emphasis, that could be related to small firms success within some types of competitive environment.

Hence, this study is different from earlier research in the small firms field in some important aspects. It moves beyond the case studies and very small sample analysis, it looks at businesses clustered into groups on the basis of similar competitive environment, it considers a comprehensive set of strategic variables, and it takes into account the differences in performance of companies.

The grouping of companies into similar competitive environment was carried out, as mentioned, by means of cluster analysis. This powerful statistics technique has been used and validated by previous research (Prescott, 1986; Thietart and Vivas, 1984; Woo and Cooper, 1981) and is considered much adequate for research problems such as the present one because it improves the accuracy of pooling procedures.

This study used mainly and foremost perceptual data to measure both the competitive environment and competitive strategy. While this can be acceptable with regards to competitive strategy, it can be regarded as a weakness of the study with regard to competitive environment. However, lack of a standardized database, for instance comparable to that of the PIMS database, was one of the reasons for reliance on perceptual data. Besides it was felt that published industry data would not be relevant or would not apply to the reality of the small firms studied. This argument is supported by a number of researchers and has been detailed in the methodology chapter (Chaganti, 1987; Gripsrud and Gronhaug, 1985; Brown, 1985). Hence, the competitive environment conditions described for each of the clusters encountered refer to conditions in the particular market served by the responding firms, as perceived by them.

Companies' performance in this study was not calculated by the more conventional way, that is, as an index of growth either of sales, assets or profits during the time period considered. Rather, these indexes were joined together to make up one index only, that of overall performance level. On the basis of this level the small firms of the study were

classified into successful or less-successful small firms as they fell or not within the top 33 percent of the frequency distribution of the overall performance level. Some reasons for doing so were the fact that previous research did not agree as to which index would yield the greatest statistical benefits, the fact that performance is clearly a multidimensional issue (O'Neil and Duker, 1986) and the absence of a yardstick of performance that could be used throughout the sample. This procedure ensures that the successful strategy identified in each cluster does represent the successful companies competitive strategy. On the other hand, one could argue that this is too rigorous a criterium. As Porter (1980) argues, performance potential vary from industry to industry. Since the overall performance level was derived from mean calculations, the firms located in industry with high-performance potential might have distorted the various means upwards and the classification of successful small firms might have left out firms that might be performing well according to their own industry standards.

The biggest limitation of the study lies in the somewhat modest sample size and this means that some caution should be used in interpreting the results. With a larger sample, the size of the clusters would be larger and this would certainly favour the use of more powerful statistics techniques, such as simple or multiple regression and discriminant analysis, that would yield clearer, more reliable results with regard to the successful competitive strategy and its dimensions within each cluster. Though the methodology employed is adequate for an initial investigation such as this, it can only capture a very simplistic representation of the contingent nature of competitive strategy in specific environments, and fails to recognise any influence of a given competitive strategy variable over another within a same competitive environment. On the contrary, these variables are treated as totally independent factors. By using more powerful techniques it will be possible to capture the relationship among a larger number of variables and explicitly address the relationship between these variables and performance within competitive

environments. For instance, Chaganti (1987) used simple regression with 11 strategic independent variables in 3 subgroups of 138, 31 and 23 small firms. Anderson and Zeithaml (1984) used multiple regression with 23 strategic independent variables in 4 subgroups of 323, 857, 54 and 23. Woo and Cooper (1981) used discriminant analysis with 13 independent variables in 3 subgroups of 42, 36 and 19 companies (these researchers identified a larger number of subgroups but these are the more relevant ones). Thietart and Vivas (1984) used regression analysis with 20 strategic independent variables in 9 subgroups whose size varied from 36 to 187 companies.

Another limitation is that the analysis undertaken does not take into consideration the time lag that it would be expected to observe between the implementation of a strategic action and its impact on performance. Nevertheless, the author believes that the observations made in the research reveal general strategic tendencies based on past actions which were successful and, consequently, already reflect the dynamics of the relationship (See the conceptual definition of competitive strategy in chapter IV).

Finally, this exploratory study has focused on manufacturing small firms. It should be noted that a similar investigation of service organizations might yield different results. Besides, the study was carried out in a developing country area and any interpretation should take this into consideration.

8.3 Implications of the study and further research

Research in the field of small firms strategic management has tended to neglect the role of the competitive environment in the effectiveness of a competitive strategy. Thus, the results of this exploratory study have important implications for future research and theory in small firm strategy since, despite its limitations, the study does provide support for the inclusion of competitive environment variables as important

contingency factors in strategy formulation. The results of this study can also be used to improve decision making in, and to help developing strategy prescriptions for, small firms. In other words, knowledge of these findings will be of value to owner-managers seeking to enhance performance of their companies.

Some avenues of future research need to be pursued. Specifically, future research could search for answer to a number of questions raised by this study. For instance, why should successful small firms opt for market concentration in both competitive and less competitive environments? Does the intensity with which firms pursue market concentration really help to predict performance in small firms? Would product customization and product specialisation be only intrinsic characteristics of small firms rather than predictors of performance? Would any structural or macroeconomics variable explain why a large number of small firms chose to serve non-local, larger markets? And, consequently, would these macroeconomics variables be responsible for the differing results of research works carried out in developed and developing nations? Answers to these and other questions opened by this study can certainly increase knowledge on competitive strategies of small firms.

In general, the most important of the avenues to be pursued by future research is a better identification of success strategies taking into consideration a more comprehensive number of contingent variables since, as argued by Chaganti (1987), the effectiveness and appropriateness of specific strategies depend on a number of contingencies. Thus, future research should include other contingency variables such as the PLC (product life cycle), industry growth rate, type and size of firm, and the firm's strengths and weaknesses, within each cluster, since all of these have been reported to influence strategy. A number of contingent variables is suggested by Hofer (1975). The outcomes of such a research line would represent a more comprehensive approach to small firm competitive strategy studies and facilitate the development of

valid strategic prescriptions.

Future research should also consider a method to include more small firms into the clusters identified by this study and should use methods that explicitly analyse the relationship between competitive strategy dimensions and performance within and across these clusters to improve the accuracy of results. Discriminant analysis should be employed to distinguish successful small firms and less-successful small firms strategies.

Further investigation should be carried out into the relative importance of certain competitive strategy dimensions in each individual competitive environment. Outcomes from such studies should help immensely the owner-managers of companies with pressing resource constraints since they would be important guides to resource allocation.

Other questions should be addressed as well. For example, it should be investigated whether the results of the present study would be any different had the performance criterium not being a composite one. This is important because research into large corporations has found that different strategic dimensions have differing impact on differing indicators of performance. For instance, Thietart and Vivas (1984) used two performance criteria as dependent variables (market share and cash flow) in a study of PLC strategies for large corporations and found that strategic action took divergent orientation depending on which performance criterium was considered. This imply that for large corporation company's objective is a major contingent variable on strategic decision making . It should be interesting to verify if this is valid for small firms as well.

It should also be considered the changes that occur in competitive strategy within a particular firm when the competitive environment changes. That is, which dimensions of the competitive strategy of a small firm would change, and also their relation to performance, when the competitive forces change so that the environment becomes, for instance, more or

less competitive, fragmented, stable, dynamic, government-controlled, or the bargaining power of suppliers and clients increase or decrease. Due to time and data restrictions, this study presents only a static view of successful small firms competitive strategy within each cluster. An enquiry of a dynamic nature would be particularly welcomed in countries with unstable economies which can suffer drastic changes in any directions depending on the philosophy of new governments.

Finally, comparative studies should be carried out with service and retailing small firms as well as with companies of more modern, economically developed economies. This would certainly improve strategic management theory in small firms.

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2ND PART: COMPETITIVE ENVIRONMENT CHARACTERISTICS

Dear Entrepreneur, please answer the following questions bearing in mind your BUSINESS SECTOR characteristics.

II.1. RIVALRY:

II.1.1. In your business sector,

- a) Can the majority of the companies be classified as SMALL AND MEDIUM-SCALE BUSINESSES? YES ___ NO ____
- b) Are there any LARGE enterprise? YES ___ NO ____
- c) Are there any multinational? YES ____ NO ____
- d) Are the prices usually DETERMINED and CONTROLLED by the Government? YES ___ NO ____
- e) Do the large companies make any influence in the overall level of prices? YES ___ NO ____
- f) Is the production/product technology considered to be VERY MUCH important for competitive action? YES ____ NO ____

II.1.2. Which of the following do you consider to be the 5 MOST IMPORTANT product characteristics for a company to win competition in your business sector?

- | | |
|------------------------------|---------------------------------------|
| ---- PRICE | ---- FAST DELIVERY |
| ---- QUALITY | ---- RAW MATERIAL MATURE |
| ---- TECHNICAL ASSISTANCE | ---- MAKE/BRANDING |
| ---- OTHER SERVICES | ---- WARRANTIES |
| ---- TRADITION | ---- SHAPE OR DIMENSIONS |
| ---- FASHION (STYLE, COLOUR) | ---- PRODUCT TECHNICAL SPECIFICATIONS |

II. BARRIERS OF ENTRY:

II.2.1. Which of the following factors would you consider to be able to prevent either the ENTRANCE of a new competitor into your business sector or the growth of the existing companies?

- LARGE FIRMS ADVANTAGES
- REQUIREMENT OF LARGE SUMS OF INITIAL CAPITAL
- DIFFICULTY IN OBTAINING RAW MATERIAL
- THE DEGREE OF DIFFICULTY IN OBTAINING SKILLED LABOUR FORCE

- THE DEGREE OF DIFFICULTY IN PRODUCT MANUFACTURING
- THE AMOUNT AND NATURE OF GOVERNMENT REQUIREMENTS
- DIFFICULTY FINDING PROPER LOCATION
- DIFFICULTY BREAKING CUSTOMERS LOYALTY TO OTHER COMPANIES

II.3. SUPPLIERS' BARGAINING POWER:

II.3.1. In relation to the principal material used by your company to manufacture your leading products, how much was purchased from your major supplier during 1985 as a percentage of the total purchase value?X

II.3.2. In the event your present major supplier cannot meet your orders anymore, would you face difficulty finding an alternative supplier? Please explain.

II.3.3. Having to change suppliers would cause any major problem to your company? Please explain.

II.3.4. How likely are your MAJOR SUPPLIERS to take any action that would result in problems for your OWN company? (E.g.: delay delivery, refuse to sell, charge higher prices, demand you to purchase more than you would etc)
__ NO AT ALL __ SLIGHTLY __ MODERATELY __ VERY MUCH

II.3.5. How do you classify your major suppliers in terms of size as compared to your company size?

II.3.6. Do you believe your major suppliers are all National Companies?

II.3.7. How do you classify them according to their major activity? (See below).
___ RETAILERS ____ DISTRIBUTORS _____ MANUFACTURERS

II.4. CLIENTS' BARGAINING POWER:

II.4.1. In relation to the principal product manufactured by your company, how much was purchased by your major client during 1985 as a percentage of YOUR total sales value?X

II.4.2. In the event your company's major client decides not to buy from your company anymore, how difficult would it be to find another client to substitute the former? Please explain.

11.4.3. What is the probability of changes in your company's production process or major products being necessary in order to fully meet the orders of the new client? (Eg. changes in product specification, labour force skill, production process, raw material, etc)

-- NONE AT ALL -- SLIGHT -- MODERATE -- HIGH

11.4.4. How likely are your present MAJOR CLIENTS to do anything to influence the decisions you make regarding your product, price, quality, delivery policies and other decisions?

-- NOT AT ALL -- SLIGHTLY -- MODERATELY -- VERY MUCH

11.4.5. How do you classify your MAJOR CLIENTS in terms of size as compared to your company size?

11.3.6. Do you believe your MAJOR CLIENTS are all National Companies?

11.3.7. How do you classify them according to their major activity? (See below).

--- RETAILERS ---- DISTRIBUTORS ----- MANUFACTURERS

3RD PART: COMPETITIVE STRATEGY DIMENSIONS

III.1. SCOPE OF THE BUSINESS:

III.1.1. Type of markets: (Ask the respondent to qualify his company's major markets within their business sector. In case of producers of industrial inputs, assess the market of the final product)

--- MASS/POPULAR --- MIDDLE-CLASS --- HIGH-INCOME
AVERAGE SOPHISTICATED

III.2. MARKET/SALES DIVERSIFICATION OR CONCENTRATION

(Percentage of sales in the following markets):

LOCAL ----- REST OF STATE ----- REST OF REGION -----
REST OF COUNTRY ----- INTERNATIONAL MARKET -----

NOTE: Before questions below are placed to the respondent, he should be asked to:

- . Think of his company's major competitors
- . Identify how many they are and where they are located
- . Refer to his company's situation in relation to these major competitors

III.3. SPECIALISATION X DIVERSIFICATION OF PRODUCTS:

Description of company's product range (major products):
.....
.....
.....

III.3.1. Comparison of product line width (number of lines) to that of MAJOR COMPETITORS:

---- NARROWER ---- SIMILAR ---- BROADER

III.3.1. Comparison of product line depth (average number of products/items per line) to that of MAJOR COMPETITORS:

----- SMALLER ---- SIMILAR ----- LARGER

III.3.1. PRODUCT CONSISTENCY: (Whether all products share similar raw materials, labour skills, manufacturing process and equipment, distribution system and product final usage):

	RAW-MAT	LABOUR	PROCESS	EQUIPT	DISTRIB	USAGE
SAME /	I	I	I	I	I	I
SIMILAR	I	I	I	I	I	I
DIFF.	I	I	I	I	I	I

III.4. PRODUCT CUSTOMIZATION X STANDARDISATION:

III.4.1. Sales of products made to customers' specific orders as a percentage of total sales

III.4.2. Comparison of company's situation with that of leading competitors regarding PRODUCT CUSTOMIZATION: (write in observations)

III.5. PRODUCT IDENTIFICATION:

III.5.1. Can your clients recognise your products in the market? If so, how do you think they can do it? (EG. label, packaging, image, name, make)

III.5.2. What can make a client decide to purchase any of your products instead of your leading competitors'?

III.5.3. Does your company need to offer any service to your customers? Which type? (Common, sales and/or technical services)

III.5.4. Are these services charged for in a separate bill?
.....
.....

III.5.1. Do your company's products need any sort of packaging?
Why do you think so?
.....

III.5.1. (Write in observations on packaging): Nature of the
PACKAGING used regarding material, shape, quality,
amount of written information on it, uniqueness).....
.....
.....

II.6. ADVERTISING AND PROMOTION EFFORT:

III.6.1. Does your company do ADVERTISING and PROMOTION? What
type? How often? Tell me about it.....
.....
.....

III.6.2. (Write in observations on sales force): Are SALESMEN
TRAINED to deal with your particular product? Which
sort of SALES FORCE does your company have?
.....

III.7.1. PRODUCT DEVELOPMENT:

III.7.1. PRODUCT INTRODUCTION: Indicate how many NEW, MODERN
PRODUCTS have been introduced into your PRODUCT MIX
during the past 5 years.....

III.7.2. MODIFICATION OF OLD PRODUCTS: How many of your
EXISTING PRODUCTS been MODIFIED or RENEWED over the
past 5 years?
.....

III.8. PRICE

III.8.1. PRICING POLICY: Does your company make use of PRICING
TACTICS (e.g: PRICE DISCOUNTS, SPECIAL PRICE PROMOTION
OR CREDIT)?

III.8.2. How IMPORTANT the above TACTICS are to your company's
SALES EFFORT?

---- NOT AT ALL IMPORTANT ---- SLIGHTLY IMPORTANT
---- MODERATELY IMPORTANT ---- VERY IMPORTANT

III.8.3. RELATIVE PRICE: How does the AVERAGE SELLING PRICE of
your company's PRODUCTS compare to your LEADING
COMPETITORS'?

---- MUCH LOWER ---- SLIGHTLY LOWER ---- SAME
---- SLIGHTLY HIGHER ---- MUCH HIGHER

III.9. PRODUCT QUALITY:

III.9.1. How do your company's PRODUCTS' QUALITY, on the whole, compare to that of your LEADING COMPETITORS in the following scale?

----- INFERIOR ----- SIMILAR ----- SUPERIOR

III.10. DISTRIBUTION:

III.10.1. Tell me how your company's PRODUCTS are DISTRIBUTED focusing on CHANNEL, TRANSPORT SYSTEM AND EMPLOYEES.
.....
.....

III.11. GENERAL ASPECTS:

III.13.1. Please COMMENT on your company (or product) STRENGTH AND WEAKNESSES in relation to your MAJOR COMPETITORS
.....
.....
.....

4TH PART: COMPANY'S FINANCIAL PERFORMANCE

IV.1. Please complete the following table:

	1 9 8 3	1 9 8 4	1 9 8 5
total sales			
profit			
total asset			

THANK YOU

III. Which of the following factors would you consider to be able to prevent either the entrance of a new competitor into your business sector or the growth of companies already in business?

- QV022 __ LARGE FIRMS ADVANTAGES, IF ANY.
- QV023 __ THE NEEDED AMOUNT OF CAPITAL TO START A BUSINESS
- QV024 __ DIFFICULTY IN OBTAINING RAW MATERIAL
- QV025 __ DIFFICULTY IN HIRING SKILLED LABOUR FORCE
- QV026 __ THE DEGREE OF DIFFICULTY IN MANUFACTURING THE PRODUCT
- QV027 __ THE AMOUNT AND NATURE OF GOVERNMENT REQUIREMENTS
- QV028 __ NONE OF THESE
- QV029 __ NOTHING CAN PREVENT THE ENTRANCE OF OTHER COMPANIES

IV. How likely are your MAJOR SUPPLIERS to take any action that would lead to problems for your OWN company? E.g. delay delivery, refuse to sell, charge higher prices, demand you to purchase more than you would, etc).

- QV030 __ NOT AT ALL ___ SLIGHTLY ___ MODERATELY __ VERY MUCH

V. How likely are your MAJOR CLIENTS to influence the decisions you make regarding YOUR product, price, quality and delivery policies?

- QV031 NOT ALL ALL _____ SLIGHTLY _____
- MODERATELY _____ VERY MUCH _____

VI. Please answer the following:

QV032 THE GREATEST PART OF YOUR COMPANY'S OUTPUT IS SOLD TO:

- ___THE FINAL CONSUMER ___DISTRIBUTORS OR MIDDLEMEN
- ___RETAILERS ___MANUFACTURES

QV033 NO. OF EMPLOYEES AND OWNER-MANAGERS:
 employees ANDowner-managers

X. What percentage of your company's SALES are made to the following markets?

QV045 ---- LOCAL MARKET QV048 --- REST OF THE COUNTRY
QV046 ---- REST OF THE STATE QV049 --- EXPORT MARKET
QV047 ---- REST OF THE REGION

3RD PART

COMPANY'S FINANCIAL PERFORMANCE

I. Please complete the following table:

	1 9 8 3	1 9 8 4	1 9 8 5
total sales	QV050	QV051	QV052
profit	QV053	QV054	QV055
total asset	QV056	QV057	QV058

THANK YOU.

APPENDIX 3

INTERVIEWS VARIABLES:
THEIR NAMES AND OPERATIONALISATION

1. General Variables

V001	Case Identifier	
V002	Company Location I	Local postcodes of companies
V200	Company Location II	Derived by grouping V002 according to city size into 1 "major centre", 2 "secondary centre", 3 "rural town, 4 "smaller rural town". See note 1 at the end of the appendix.
V003	Industry sector	FIBGE classification (2 digits).
V004	Business activity	FIBGE classification (4 digits).
V005	Type of product I	Classification of company's major products according to usage into 1 "capital goods", 2 "industrial inputs to produce capital goods", 3 "industrial inputs to produce consumer goods", 4 "durable consumer goods", 5 "Non-durable consumer goods".
V201	Type of product II	Derived by grouping V005 into 1 "non-consumer goods", 2 "consumer goods".
V201b	Type of product III	Derived by regrouping V005 into 1 "capital goods", 2 "industrial inputs", 3 "consumer goods".
V048	Company age I	Number of years since foundation of company.
V202	Company age II	Derived by grouping V048 as 1 "up to 10 years", 2 "10 to 30 years", 3 "30 and over".
V049	Employment level I	Number of employees as informed by interviewee.
V203	Employment level II	Derived by grouping V049 as 1 "up to 49", 2 "50 to 99", 3 "100 and over".
V050	Total number of owners	Total number of owners as informed by interviewee.
V204	Total number of owners II	Derived by grouping V050 as: 1 "up to 3", 2 "4 to 6", 3 "7 and over".
V052	Major owner-manager education level	The level of education as informed by interviewee.
V057	Owner-manager training	Whether the major owner-manager has attended any training course or programme on business management, as informed by interviewee.
V064	Hired managers	Number of hired-managers, if any, as informed by interviewee.
V065	Hired-manager education level	The level of education of the major hired-manager.

V069 Hired-manager training	Whether the major hired-manager has attended any training course or programme on business management, as informed by interviewee.
V084 Company nature	Whether the company is a family business or not.

2. Competitive Environment Variables

Rivalry

V006 Size of major competitors I	Whether the majority of competitors are small firms, as informed by respondents.
V007 Size of major competitors II	Whether the responding company compete with large firms.
V008 Nature of competitors I	Whether any of the competitors are government-owned companies, as informed by the interviewee.
V009 Nature of competitors II	Whether any of the competitors are multinational companies, as informed by the interviewee.
V010 Price leader	Whether in the small firm market, prices are 1 "controlled by government", 2 "influenced by large firms", 3 "neither".
V208 Government price-control	Derived by grouping V010 into: 1 "no", 2 "yes".
V209 Large-firm price control	Derived as above.
V011 Importance of production technology	Whether production technology is a very important feature in the business sector, as informed by interviewee.
V012 Price competition	Whether competition in the market is based on price, according to interviewee. 1 "No", 2 "Yes".
V013 Quality competition	Whether competition in the market is based on quality according to interviewee. 1 "No", 2 "Yes".
V014 Technical assistance	Whether technical assistance is a basis of competition according to interviewee, 1 "no", 2 "yes".
V015 Service competition	Whether service is a basis of competition according to interviewee, 1 "no", 2 "yes".
V211 Type of service	1 "no service", 2 "common services", 3 "technical, special services", 4 "both types".
V016 Company's tradition and image	Whether company's tradition or image is a basis of competition according to interviewee, 1 "no", 2 "yes".
V017 Fashion competition	Whether competition is based on fashion aspects of the product including style, colour, etc, according to interviewee, 1 "no", 2 "yes".

- V018 Delivery Whether delivery is a basis of competition, according to to interviewee, 1 "no", 2 "yes".
- V019 Raw material nature Whether the nature of raw materials is a basis of competition, according to interviewee, 1 "no", 2 "yes".
- V020 Branding or make Whether branding or product make is a basis of competition, according to interviewee, 1 "no", 2 "yes".
- V021 Warranties competition Whether warranties are bases of competition, according to interviewee, 1 "no", 2 "yes".
- V022 Product shape and dimensions Whether product shape/dimension is a basis of competition, according to interviewee, 1 "no", 2 "yes".
- V023 Product technical specifications Whether product technical specification is a basis of competition, according to interviewee, 1 "no", 2 "yes".

Perceived Entry and Growth Barriers

- V024 Large firms advantages Whether large firms advantages, if any, are perceived as barrier to entry or to company growth, according to interviewee, 1 "no", 2 "yes".
- V025 Initial capital Whether the needed amount of initial capital to start into business can be a barrier, according to interviewee, 1 "no", 2 "yes".
- V026 Location of premisses Whether difficulty, if any, in finding proper/strategic location for the premisses can be a barrier, according to interviewee, 1 "no", 2 "yes".
- V027 Skilled labour Whether difficulty in obtaining skilled labour be a barrier to entry or to company growth, according to interviewee, 1 "no", 2 "yes".
- V028 Acquisition of raw material Whether difficulty in obtaining raw material can be a barrier to entry or to company growth, according to interviewee, 1 "no", 2 "yes".
- V029 Product manufacturing Whether the degree of difficult manufacturing the product can be a barrier to entry or to company growth, according to interviewee, 1 "no", 2 "yes".
- V030 Clients loyalty Whether clients loyalty to established competitors can be a barrier to entry or impair firm development, 1 "no", 2 "yes".

- V031 Government regulations Whether the amount and nature of government regulations can be a barrier to entry or to company growth, according to interviewee, 1 "no", 2 "yes".
- V212 None of these Whether none of these barriers apply, according to interviewee, 1 "some/all apply" , 2 "none apply".
- V213 No perceived barrier Whether the interviewee perceives no barriers, 1 "no", 2 "yes".

Perceived Bargaining Power of Suppliers

- V032 Type of major suppliers Whether major suppliers are large or SME, national or multinational companies, as informed by interviewee.
- V216 Major suppliers size Derived by grouping V032 into, 1 "SME", 2 "Large firms".
- V216B Major suppliers nature Derived by regrouping V032 into 1 "national companies", 2 "multinational companies".
- V033 Major suppliers activities I Whether they are manufacturers, distributors, retailers, etc, as informed by interviewee.
- V217 Major suppliers activities II Derived by grouping V033 into 1 "only manufacturer" 2 "manufacturers and/or others".
- V034 Percentage of purchase from major supplier I Percentage of total purchasing expenditure as informed by interviewee.
- V218A Percentage of purchase from major supplier II Derived by grouping V034 into 1 "less than 50%", 2 "50% or more".
- V218B Percentage of purchase from major supplier III Derived by grouping V034 into 1 "10% or less", 2 "more than 10%".
- V218C Percentage of purchase from major supplier IV Derived by grouping V034 into 1 "20% or less", 2 "more than 20%".
- V037 Finding alternative suppliers Whether it is difficult or not to find alternative suppliers, as informed by interviewee.
- V038 Consequences from changing suppliers Whether changing suppliers would lead the small firm to face any problem or the need to adjust product/production. 1 "no", 2 "yes".
- V039 Measure of bargaining power of major supplier I The probability of the major supplier's action resulting in problems for the small firm, as informed by the respondents along the following scale: 1 "not at all", 2 "slightly", 3 "moderately", 4 "very much".
- V219 Measure of bargaining power of major supplier II Derived by recoding QV030 into: 1 "none or little", 2 "moderate or high".

Perceived Bargaining Power of Clients

V040	Type of major clients I	Whether the greatest amount of the small firm's output is sold to final customers, SMEs, large companies or combinations, according to interviewee.
V220	Size of major clients	Derived from V040 as: 1 "mainly SMEs", 2 "mainly large firms"
V041	Type of clients I	Whether the greatest amount of the small firm's output is sold to final customers, retailers, distributors, etc., according to interviewee.
V214	Type of major clients II	Derived from V041 as: 1 "retailers", 2 "distributors", 3 "manufacturers", 4 "distributors and retailers", 5 "distributors & manufacturers".
V042	Percentage of sales to major client I	Percentage of total sales made to biggest client, as informed by interviewee.
V222A	Proportion of sales to major client II	Derived by grouping V042 into: 1 "less than 50%", 2 "50% or more"
V222B	Proportion of sales to major client III	Derived by regrouping V042 into: 1 "10% or less", 2 "More than 10%"
V222C	Proportion of sales to major client IV	Derived by regrouping V042 into: 1 "20% or less", 2 "More than 20%"
V045	Finding alternative clients	Whether it is difficult or not to find alternative clients, as informed by interviewee.
V046	Consequence from changing clients	The probability to undergo product or process changes to meet new clients orders, as informed by interviewee along the scale: 1 "none", 2 "slight", 3 "moderate", 4 "high".
V223	Product change probability	Derived by grouping V046 into: 1 "none or small", 2 "moderate or high".
V047	Measure of bargaining power of major client I	The probability of the major client's action will influence the small firm decisions on product, price, quality and delivery policies, as informed by the respondents along the scale: 1 "not at all", 2 "slightly", 3 "moderately", 4 "very much".
V224	Measure of bargaining power of major client II	Derived by recoding V047 into: 1 "none or little", 2 "moderate or high".

3. Competitive Strategy Variables

Scope

V085	Type of market	The type of market attend by the small firm viz, 1 "low-income or
------	----------------	---

V100 Local sales I	popular", 2 "average or middle-class", 3 "sophisticated or high-income", as informed by interviewee. Percentage of total sales made to local market, as informed by interviewee.
V238 Local sales II	Derived by grouping V100 into: 1 "up to 10%", 2 "10 to 49%", 3 "50% or more".
LOCAL Local sales III	Derived by regrouping V100 into 1 "up to 9%", 2 "9 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
V101 Sales to rest of the State I	Percentage of total sales made to the state market, excluding local area, as informed by interviewee.
RESTSTAT Sales to rest of State II	Derived by regrouping V101 into: 1 "up to 9%", 2 "9 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
V102 Sales to rest of the Region I	Percentage of total sales made to the regional market, excluding own State market, as informed by interviewee.
RESTREGI Sales to rest of the Region II	Derived by regrouping V102 into: 1 "up to 9%", 2 "9 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
V103 Sales to rest of the Country I	Percentage of total sales made to the national market, excluding own region, as informed by interviewee.
RESTCOUN Sales to rest of the Country II	Derived by regrouping V103 into: 1 "up to 9%", 2 "9 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
V104 Export sales I	Percentage of total sales made to export markets, as informed by interviewee.
EXPORT Export sales II	Derived by regrouping V104 into: 1 "up to 9%", 2 "9 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
V244 Market concentration index	Computed as $(((((V100 \times 2 + V101 \times 2 + V102 \times 2 + V103 \times 2) \times 4) - 10000) / (100 \times (4 - 1)))$). This formula is explained in detail in note 2, at end of the appendix.
V245 Relative concentration	Splitting the sample into two classes of concentration: 1 "below average", 2 "on or above average".
V246 Grouped concentration index I	Derived by grouping V244 into: 1 "up to 25", 2 "25 to 50%", 3 "50 to 75", 4 "75 to highest".
V247 Grouped concentration index II	Derived by grouping V244 into: 1 "up to 12.5", 2 "12.5 to 25%", 3 "25 to 37.5", 4 "37.5 to 50", 5 "50 to 62.5", 6 "62.5 to 75",

7 "75 to 87.5", 8 "87.5 to 100".

Product

V090	Relative product-line width	Whether the small firms' product-line width (average number of product-lines) is 1 "narrower", 2 "similar", 3 "broader", relatively to major competitors, according to interviewee.
V092	Relative product-line depth	Whether the small firms' product-line depth (average number of products per line) is 1 "narrower", 2 "similar", 3 "broader", relatively to major competitors, according to interviewee.
V094	General degree of	The arithmetic sum of the scores of variables V095 to V099. Note 3, at the end of the appendix.
V095	Raw material consistency	See not 3. 1 "the company scores -1, no", 2 "the company scores +1, yes"
V096	Labour force consistency	See not 3. 1 "the company scores -1, no", 2 "the company scores +1, yes"
V097	Production equipment consistency	See not 3. 1 "the company scores -1, no", 2 "the company scores +1, yes"
V098	Distribution system consistency	See not 3. 1 "the company scores -1, no", 2 "the company scores +1, yes"
V099	Production function consistency	See not 3. 1 "the company scores -1, no", 2 "the company scores +1, yes"
V105	Degree of product customization	Percentage of sales of product made to customer's orders, as informed by interviewee.
V108	Identification I	The kind of identification, if any, sought by the company, with regards to branding, services, packaging
V256	Branding	Derived from V108 as: 0 "none", 1 "general brandname", 2 "various brandnames"
V109	Identification II	the types of services provided by the company to its customers. Whether they are common to all/most competitors or special, specialised and distinct.
V257	Services	Derived from V109: 1 "none", 2 "only common", 3 "special, distinct", 4 "both".
V112	Identification III	Whether packaging is perceived as part of identification strategy and the functions perceived.
V254	Perceived packaging functions	Derived from V112: 0 "none", 1 "protection, container,

V113 Type of packaging	hygiene", 2 "protection plus transport", 3 "selling aid", 4 "all these functions" Description of the type of packaging as informed by interviewee.
V258 Packaging	The type of packaging, derive from V113: 1 "none", 2 "simple", 3 "common to all competitors", 4 "distinct".
V116 Product introduction I	Number of new products introduced during a 5-year period before interview, as informed by interviewee.
V240 Product introduction II	Derived from V116: 0 "none", 1 "few", 2 "about one a year", 3 "many over the 5 years".
V117 Product modification I	Number of times old products were modified over the 5-year period.
V241 Product modification II	Derived from V117: 0 "never", 1 "rarely", 2 "once a year", 3 "often".

Price

V118 Relative price I	Product selling price relative to major competitors: 1 "very much lower", 2 "a little lower", 3 "similar", 4 "a little higher", 5 "very much higher".
V242 Relative price II	Derived by grouping V118 as: 1 "lower", 2 "similar", 3 "higher".
V119 Importance of price tactics to selling effort I	The importance of tactics such as price discounts, special prices, credit, etc, to selling effort, as perceived by interviewee.
V243 Importance of price	Derived from V119: 1 "none", 2 "little", 3 "moderate", 4 "much".

Advertising and Promotion Effort

V110 Type of advertising	The types of advertising done by the company as informed by interviewee.
V248 Advertising	Whether the company does any type of advertising at all: 1 "none", 2 "some".
V111 Type of promotion	The types of promotion done by the company as informed by interviewee.
V249 Promotion	Whether the company does any type of promotion at all: 1 "none", 2 "some".

4. Performance variables

V124 1983 total sales	Total sales made in 1983 as shown in company's balance sheet or informed by interviewee.
V125 1984 total sales	Total sales made in 1984 as shown in company's balance sheet or informed by interviewee.
V126 1985 total sales	Total sales made in 1985 as shown in company's balance sheet or informed by interviewee.
V127 1983 net profit	Total net profit made in 1983 as shown in company's balance sheet or informed by interviewee.
V128 1984 net profit	Total net profit made in 1984 as shown in company's balance sheet or informed by interviewee.
V129 1985 net profit	Total net profit made in 1985 as shown in company's balance sheet or informed by interviewee.
V130 1983 total assets	Total assets value as at the end of 1983, as shown in company's balance sheet or informed by interviewee.
V131 1984 total assets	Total assets value as at the end of 1984, as shown in company's balance sheet or informed by interviewee.
V132 1985 total assets	Total assets value as at the end of 1985, as shown in company's balance sheet or informed by interviewee.
V225A 83/84 Sales growth	Computed as : $((V125-V124) / V124) \times 100$
V225B 84/85 Sales growth	Computed as: $((V126-V125) / V125) \times 100$
V225C 83/85 Sales growth	Computed as: $((\text{SQRT}(V126/V124)) - 1) \times 100$
V231 3 year average sales growth	Computed as the mean of the V225A, V225B and V225C, after standardising their values by the procedure of Z-scores as contained in SPSSX. One of the reasons for doing so was the attempt to bring to one only scale values affected by different rates of inflation along the years. Computed as: Mean.1 (ZV225A to ZV225C).
V226A 1983 return on sales	Computed as $100 \times (V127/V124)$
V226B 1984 return on sales	Computed as $100 \times (V128/V125)$
V226C 1985 return on sales	Computed as $100 \times (V129/V126)$
V227 3 year average ROS	Computed as the mean of the above three variables.
V228A 83/84 investment growth	Computed as: $((V131 - V130)/V130) \times 100$
V228B 84/85 investment growth	Computed as: $((V132 - V131)/V131) \times 100$
V228C 83/85 investment growth	Computed as: $((\text{SQRT}(V132/V130))-1) \times 100$

V232 3 year average investment growth	Computed as the mean of the above three variables after standardising their values by the SPSSX Z-score procedure. Computed as: Mean.1 (ZV228A to V228C)
V229A 1983 ROI	Computed as: 100 X (V127/V130)
V229B 1984 ROI	Computed as: 100 X (V128/V131)
V229C 1985 ROI	Computed as: 100 X (V129/V132)
V230 3 year average ROI	Computed as the mean of the above three variables.
V235 Average overall performance	Computed as the mean of V227, V230, V231, and V232, after standardising the values of V227 and V230 by the SPSSX Z-score procedure.
V236 Relative overall performance	Splitting the sample into two performance classes; the successful companies, those located within the top 33 percent of the frequency distribution of V235, and less-successful companies, the remaining.

Note 1:

V200 Company location II:

Major centre: the major urban centre of Zona da Mata (Juiz de Fora) and nearby towns.

Secondary centre: all cities/towns with more than 100,00 people in their urban areas, and villages small towns within a 15 kilometres radius.

Rural towns: small towns of between 15,000 to 100,000 people in their urban areas.

Smaller rural towns: towns with less than 15,000 people in their urban areas.

Note 2:

V244 Concentration index

The concentration indices were calculated through the following formulae:

$$I = \frac{\sum_{i=1}^n \frac{M_i^2}{n} - 10,000}{100(n-1)}$$

Where:

a) I = Index of concentration

$$d) M_1 + M_2 + \dots + M_n = 100$$

b) I varies from 0 to 100

c) M_1, M_2, \dots, M_n = Proportion of total sales which goes to markets 1, 2, ..., n, respectively

e) n = Number of markets which are catered for by the small firms in the sample.

Thus,

f) I = 0, that is total market diversification or lack of concentration, when

$$M_1 = M_2 = \dots = M_n = \frac{100}{n}$$

g) I = 100, that is, total market concentration or no diversification, when

$$M_i = 100 \text{ and any other } M = 0$$

Note 3:

V094 Degree of consistency:

A company general degree of product consistency was calculated as follows:

a) Raw material consistency: When the raw materials used to manufacture the company's products are the same or very similar, the company scores +1. If not, the score will be -1.

b) Labour force consistency: When the company's products require the same or similar kind of labour force with regards to skill and training, the company scores +1, if not, -1.

c) Production equipment consistency: When all the company's products are processed through the same equipment, the company scores +1, if not, -1.

d) Channel of distribution consistency: When all the company's products are distributed through the same marketing channel, the company scores +1, if not, -1.

e) Final usage consistency: When all the company's products perform the same or closely related functions, the company scores +1, if not, -1.

All the 5 individual scores are, then, added up to obtain the company's general degree of consistency among products.

APPENDIX 4

SURVEY VARIABLES:
THEIR NAMES AND OPERATIONALISATION

List of Original and Created Variables,
Their Origins, Operationalisation, Labels and Values.

1. General Variables

QV001 Case Identifier	001 to 125.
QV002 Company's location I	Local postcodes of companies.
QV062 Company's location II	Derived by grouping QV002 according to city size into 1 "major centre", 2 "secondary centre", 3 "rural town, 4 "smaller rural town" (Note 1).
QV003 Industry sector	FIBGE classification (2 digits).
QV004 Business activity	FIBGE classification (4 digits).
QV005 Type of product I	Classification of company's major products according to usage into 1 "capital goods", 2 "industrial goods to produce capital goods", 3 "industrial goods to produce consumer goods", 4 "durable consumer goods", 5 "Non-durable consumer goods".
QV063 Type of product II	Derived by grouping QV005 into 1 "capital goods", 2 "Industrial inputs", 3 "Durable consumer goods, 4 "non-durable consumer goods".
QV064 Type of product III	Derived by regrouping QV005 into 1 "capital goods", 2 "industrial inputs", 3"consumer goods".
QV033 Employment level I	Number of employees as informed by respondents.
QV034 Employment level II	Number of employees as informed by Data Source.
QV094 Grouped employment Level	Derived by grouping QV033 into 1 "up to and including 19", 2 "20 to 49", 3 "50 to 99", 4 "100 and over".

2. Competitive Environment Variables.

Rivalry

QV006 Size of major competitors I	Whether the majority of competitors are small firms, as informed by respondents.
QV007 Size of major competitors II	Whether the responding company compete with large firms.
QV076 Industry sector II	Derived by grouping QV003 into 1 "SME sector", 2 "large firm sector", based on the literature.

QV077 Industry sector III	Derived by regrouping QV003 into 1 "only small firms sector", 2 "medium and large firm sector", based on the literature.
QV008 Government authorities price-control	Whether prices are controlled by any government authority, as informed by respondent.
QV009 Importance of production technology	Whether production technology is a very important feature in the business sector, as informed by respondents.
QV010 Price competition	Whether competition in the market is based on price, according to informant. 1 "No", 2 "Yes".
QV011 Quality competition	Whether competition in the market is based on quality according to informant. 1 "No", 2 "Yes".
QV012 Technical assistance	Whether technical assistance is a basis of competition according to informant, 1 "no", 2 "yes".
QV013 Service competition	Whether service is a basis of competition according to informant, 1 "no", 2 "yes".
QV014 Company's tradition and image	Whether company's tradition or image is a basis of competition according to informant, 1 "no", 2 "yes".
QV015 Fashion competition	Whether competition is based on fashion aspects of the product including style, colour, etc, according to informant, 1 "no", 2 "yes".
QV016 Delivery	Whether delivery is a basis of competition, according to informant, 1 "no", 2 "yes".
QV017 Raw material nature	Whether the nature of raw materials is a basis of competition, according to informant, 1 "no", 2 "yes".
QV018 Branding or make	Whether branding or product make is a basis of competition, according to informant, 1 "no", 2 "yes".
QV019 Warranties competition	Whether warranties are bases of competition, according to informant, 1 "no", 2 "yes".
QV020 Product shape and dimensions	Whether product shape/dimension is a basis of competition, according to informant, 1 "no", 2 "yes".
QV021 Product technical specifications	Whether product technical specification is a basis of competition, according to informant, 1 "no", 2 "yes".

Perceived Entry and Growth Barriers

QV022 Large firms advantages	Whether large firms advantages, if any, are perceived as barrier to entry or to company growth, according to respondents, 1 "no",
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- QV023 Initial capital 2 "yes".
Whether the needed amount of initial capital to start into business can be a barrier, according to respondents, 1 "no", 2 "yes".
- QV024 Acquisition of raw material Whether difficulty in obtaining raw material can be a barrier to entry or to company growth, according to respondents, 1 "no", 2 "yes".
- QV025 Skilled labour Whether difficulty in obtaining skilled labour be a barrier to entry or to company growth, according to respondents, 1 "no", 2 "yes".
- QV026 Product manufacturing Whether the degree of difficult manufacturing the product can be a barrier to entry or to company growth, according to respondents, 1 "no", 2 "yes".
- QV027 Government regulations Whether the amount and nature of government regulations can be a barrier to entry or to company growth, according to respondents, 1 "no", 2 "yes".
- QV028 None of these Whether none of these barriers apply, according to respondents, 1 "some/all apply" 2 "none apply".
- QV029 No perceived barrier Whether the respondents perceive no barriers at all, 1 "no", 2 "yes".

Perceived Bargaining Power of Suppliers

- QV030 Measure of bargaining power of major supplier I The probability of the major supplier's action resulting in problems for the small firm, as informed by the respondents along the following scale: 1 "not at all", 2 "slightly", 3 "moderately", 4 "very much".
- QV074 Measure of bargaining power of major supplier II Derived by recoding QV030 into 1 "none or little", 2 "moderate or high".

Perceived Bargaining Power of Clients

- QV031 Measure of bargaining power of major client I The probability of the major client's action will influence the small firm decisions on product, price, quality and delivery policies, as informed by the respondents along the scale: 1 "not at all", 2 "slightly", 3 "moderately", 4 "very much".
- QV075 Measure of bargaining Derived by recoding QV031 into 1

power of major client II	"none or little", 2 "moderate or high".
QV032 Type of clients I	Whether the greatest amount of the small firm's output is sold to final customers, retailers, distributors, etc., according to respondents.
QV066 Type of major clients II	Derived from QV032 as: 1 "consumers", 2 "retailers", 3 "distributors", 4 "manufacturers", 5 "distributors and retailers", 6 "distributors & manufacturers", 7 "other combinations".
QV066b Type of major clients III	Derived from QV066 as 1 "consumers", 2 "intermediaries", 3 "manufacturers", 4 "other combinations".

3. Competitive Strategy Variables

Scope

QV035 Type of market I	The type of market attend by the small firm viz, 1 "low-income or popular", 2 "average or middle-class", 3 "sophisticated or high-income", as informed by respondents.
QV045 Local sales I	Percentage of total sales made to local market, as informed by respondents.
QV068 Local sales II	Derived by grouping QV045 into 1 "up to 10%", 2 "10 to 20%", 3 "20 to 40%", 4 "40 to 60%", 5 "60 to 80%", 6 "80% and over".
QV092 Local sales III	Derived by regrouping QV045 into 1 "up to 10%", 2 "10 to 50%", 3 "50% and over".
LOCAL Local sales IV	Derived by regrouping QV045 into 1 "up to 10%", 2 "10 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
QV046 Sales to rest of the State I	Percentage of total sales made to the state market, excluding local area, as informed by respondents.
QV070 Sales to rest of the State II	Derived by grouping QV046 into 1 "up to 10%", 2 "10 to 20%", 3 "20 to 40%", 4 "40 to 60%", 5 "60 to 80%", 6 "80% and over".
RESTSTAT Sales to rest of State III	Derived by regrouping QV046 into 1 "up to 10%", 2 "10 to 30%", 3 "30 to 50%", 4 "50 to 80%", 5 "80% and over".
QV047 Sales to rest of the Region I	Percentage of total sales made to the regional market, excluding own State market, as informed by respondents.

QV072 Sales to rest of the Region II	Derived by grouping QV047 into 1 "up to 10X", 2 "10 to 20X", 3 "20 to 40X", 4 "40 to 60X", 5 "60 to 80X", 6 "80X and over".
RESTREGI Sales to rest of the Region III	Derived by regrouping QV047 into 1 "up to 10X", 2 "10 to 30X", 3 "30 to 50X", 4 "50 to 80X", 5 "80X and over".
QV048 Sales to rest of the Country I	Percentage of total sales made to the national market, excluding own region, as informed by respondents.
RESTCOUN Sales to rest of the Country II	Derived by regrouping QV048 into 1 "up to 10X", 2 "10 to 30X", 3 "30 to 50X", 4 "50 to 80X", 5 "80X and over".
QV049 Export sales I	Percentage of total sales made to export markets, as informed by respondents.
EXPORT Export sales II	Derived by regrouping QV049 into 1 "up to 10X", 2 "10 to 30X", 3 "30 to 50X", 4 "50 to 80X", 5 "80X and over".
QV095 Market concentration index	Computed as $(((((QV045 \times 2 + QV046 \times 2 + QV048 \times 2 + QV049 \times 2) \times 5) - 10000) / (100 \times (5 - 1))))$. This formula is explained in detail at the end of appendix 3.
QV097 Grouped concentration index I	Derived by grouping QV095 into: 1 "up to 25", 2 "25 to 50X", 3 "50 to 75", 4 "75 to highest".
QV098 Grouped concentration index II	Derived by grouping QV095 into: 1 "up to 20", 2 "20 to 40X", 3 "40 to 60", 4 "60 to 80", 5 "80 to highest".

Product

QV036 Relative product-line width	Whether the small firms' product-line width (average number of product-lines) is 1 "narrower", 2 "similar", 3 "broader", relatively to major competitors, according to respondents.
QV037 Relative product quality	The relative product quality rated by the respondents as 1 "inferior", 2 "similar", 3 "superior".
QV039 Importance of services to firm selling effort	Whether service to clients is perceived as 1 "not important", 2 "slightly important", 3 "moderately important", 4 "very important", to selling effort, as informed by respondents.
QV041 Importance of product customization to company's selling effort	Whether product customization is perceived as 1 "not important", 2 "slightly important", 3 "moderately important",

- 4 "very important", to selling effort, as informed by respondents.
- QV042 Importance of packaging to company selling effort Whether packaging is perceived as 1 "not important", 2 "slightly important", 3 "moderately important", 4 "very important", to selling effort, as informed by respondents.
- QV044 Importance of product innovation to company selling effort Whether product innovation is perceived as 1 "not important", 2 "slightly important", 3 "moderately important", 4 "very important", to selling effort, as informed by respondents.

Price

- QV038 Relative price The relative product price rated by the respondents as 1 "inferior", 2 "similar", 3 "superior".
- QV040 Importance of price tactics and policy to company selling effort Whether price tactics and policy are perceived as 1 "not important", 2 "slightly important", 3 "moderately important", 4 "very important", to selling effort, as informed by respondents.

Advertising

- QV043 Importance of advertising to company's selling effort Whether advertising is perceived as 1 "not important", 2 "slightly important", 3 "moderately important", 4 "very important", to selling effort, as informed by the respondents.

4. Performance variables

- QV050 1983 total sales Total sales made in 1983, 1984 and 1985, respectively, as informed by respondents
- QV051 1984 total sales
- QV052 1985 total sales
- QV053 1983 net profit Total net profit made in 1983, 1984 and 1985, respectively, as informed by respondents.
- QV054 1984 net profit
- QV055 1985 net profit
- QV056 1983 total assets Total assets value as at the end of 1983, 1984 and 1985, respectively, as informed by respondents.
- QV057 1984 total assets
- QV058 1985 total assets

QV100A 83/84 Sales growth	Computed as : $((QV051 - QV050) / QV050) \times 100$
QV100B 84/85 Sales growth	Computed as: $((QV052 - QV051) / QV051) \times 100$
QV100C 83/85 Sales growth	Computed as: $((SQRT(QV052/QV050)) - 1) \times 100$
QV106 3 year average sales growth	Computed as the mean of the QV100A, QV100B and QV100C, after standardising their values by the procedure of Z-scores as contained in SPSSX. One of the reasons for doing so was the attempt to bring to one only scale values affected by different rates of inflation along the years. Computed as: Mean.1 (ZQV100a to ZQV100C).
QV101A 1983 return on sales	Computed as $100 \times (QV053/QV050)$
QV101B 1984 return on sales	Computed as $100 \times (QV054/QV051)$
QV101C 1985 return on sales	Computed as $100 \times (QV055/QV052)$
QV102 3 year average ROS	Computed as the mean of the above three variables as: Mean. 1 (QV101A to QV101B)
QV103A 83/84 investment growth	Computed as: $((QV057 - QV056)/QV056) \times 100$
QV103B 84/85 investment growth	Computed as: $((QV058 - QV057)/QV057) \times 100$
QV103C 83/85 investment growth	Computed as: $((SQRT(QV058/QV056)) - 1) \times 100$
QV108 3 year average investment growth	Computed as the mean of the above three variables after standardising their values by the SPSSX Z-score procedure. Computed as: Mean.1 (ZQV103A to QV103C)
QV104A 1983 ROI	Computed as $100 \times (QV053/QV056)$
QV104B 1984 ROI	Computed as $100 \times (QV054/QV057)$
QV104C 1985 ROI	Computed as $100 \times (QV055/QV058)$
QV105 3 year average ROI	Computed as the mean of the above three variables: Mean.1 (QV104A to QV104C)
QV110 Average overall performance	Computed as the mean of QV106, QV102, QV108, and QV105, after standardising the values of QV102 and QV105 by the SPSSX Z-score procedure: Mean.2 (QV106, ZQV102, QV108, ZQV105).
QV111 Relative overall performance	Splitting the sample into two performance classes; the successful companies, those located within the top 33 percent of the frequency distribution of QV110, and less-successful companies, the remaining.

Note 1:

QV062 Company location II:

Major centre: the major urban centre of Parana (Curitiba, the capital) and towns within a 30 kilometres radius.

Secondary centre: all cities/towns with more than 100,00 people in their urban areas, and villages small towns within a 15 kilometres radius.

Rural towns: small towns of between 15,000 to 100,000 people in their urban areas.

Smaller rural towns: towns with less than 15,000 people in their urban areas.

APPENDIX 5

a) Letter forwarding the competitive environment questionnaire to the interviewees.

Viçosa, 7 de Novembro de 1986

Prezado Sr. Empresário:

Há algumas semanas entrevistamos V.Sa. a fim de obter subsídios para a pesquisa sobre pequenas e médias empresas que ora realizamos. Agradecemos sua colaboração que é de vital importância para o nosso trabalho.

Iniciamos agora a segunda fase de nossa pesquisa, a saber, a complementação de dados sobre o ramo de negócios das empresas por nos entrevistadas. Assim, estamos mais uma vez solicitando a valiosa colaboração de V.Sa., qual seja, o preenchimento do questionário em anexo. Disto depende a conclusão e o êxito de nosso trabalho. Asseguramo-lhes que as questões são todas muito simples e fáceis de serem respondidas, não devendo tomar muito de seu tempo. Asseguramos também, como da outra vez, sigilo total em relação às informações prestadas por V.Sa.

Como o prazo de que dispomos para a coleta de dados é muito curto, gostaríamos de solicitar de V.Sa. o obsequio de responder e nos remeter o questionário anexo o mais rapidamente possível. Para facilitar enviamos também um envelope selado e endereçado para sua resposta.

Certos de podermos contar outra vez com a colaboração de V.Sa., antecipadamente agradecemos e aproveitamos a oportunidade para enviar-lhe os nossos mais sinceros votos de sucesso e saúde.

Atenciosamente

Telma R C G Barbosa

b) Letter accompanying the survey questionnaire

Vicosa, 7 de Novembro de 1986

Caro Sr. Empresario:

Sou bolsista da CAPES - Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior do Ministerio da Educacao, e ora realizo curso de doutorado em administracao na Universidade de Durham, na Inglaterra.

Como aluna desta Universidade e em atendimento a exigencias academicas, estou desenvolvendo um trabalho de pesquisa sobre pequenas e medias empresas as quais constituem reconhecidamente na verdadeira empresa nacional. A referida pesquisa tem como objetivo geral o de melhor conhecer a realidade das pequenas e medias empresas no que diz respeito aos problemas e dificuldades que enfrentam diante da concorrência. Pesquisas como esta sao necessarios subsidios a elaboracao de medidas de apoio ao setor e ao planejamento de cursos de administracao e programas de treinamento de empresarios.

A realizacao e o sucesso desta pesquisa depende, todavia, do apoio que V.Sa. possa me proporcionar. Assim, peço a sua valiosa colaboracao no sentido de preencher o questionario anexo. Asseguro a V.Sa. que toda informacao prestada sera tratada de forma estritamente confidencial e que, tanto durante a fase de analise dos dados quanto nos resultados finais da pesquisa, as empresas participantes nao poderao ser de forma alguma identificadas isoladamente. Para garantir tal confidencialidade os questionarios nao identificam a empresa e o nome da mesma nao deve ser escrito no questionario (O codigo no alto do questionario refere-se a atividade economica da empresa, de acordo com a classificacao do IBGE, e e de muita importancia para a pesquisa).

Certa de poder contar com a colaboracao de V.Sa., antecipadamente agradeço e aproveitamos a oportunidade para enviar-lhe os nossos mais sinceros votos de sucesso e saude.

Atenciosamente

Telma R C G Barbosa

P.S.: Use, por gentileza, o envelope anexo ja selado e endereçado para me remeter o questionario preenchido. Muito obrigada.

c) Introduction letter by the research supervisor



DURHAM UNIVERSITY BUSINESS SCHOOL

SMALL BUSINESS CENTRE

Mill Hill Lane Durham DH1 3LB England
Telephone (0385) 41919 ext

MGS/EW

31st July 1986

To whom it may concern

Mrs. Telma Barbosa is undertaking work financed by the Ministerio da Educacao and Coordenacao para o Aperfeicoamento de Pessoal de Nivel Superio - CAPES, under my supervision at the University of Durham, U.K.

I would be most grateful for any help that you can offer to Mrs. Barbosa.

Yours sincerely,


Dr. M.G. Scott

Lecturer in Small Business Studies

d) introduction letter by CAPES



MINISTÉRIO DA EDUCAÇÃO
COORDENAÇÃO DE APERFEIÇOAMENTO DE PESSOAL DE NÍVEL SUPERIOR – CAPES
Ministério da Educação – Anexo I - 4.º andar - Telefones (061) 214-8852 ou 214-8853
Telex (061) 2018 COPN - Caixa Postal 3540 - CEP 70000 - Brasília, DF - Brasil

D E C L A R A Ç Ã O

Esta tem a finalidade de apresentar a Sra. TELMA REGINA DA COSTA GUIMARÃES BARBOSA, aluna do Doutorado em Administração, junto à The University of Durham, na Inglaterra, como bolsista desta Coordenação.

A Sra. Telma teve o projeto de tese aprovado pela CAPES e, no momento, encontra-se no País realizando coleta de dados devidamente autorizada por esta Coordenação.

Por esse motivo gostaríamos de contar com a colaboração de V.Sa. no sentido de facilitar o trabalho da referida bolsista permitindo-lhe o acesso ao material necessário ao desenvolvimento de sua pesquisa de campo.

Certos de contarmos com sua atenção, somos gratos antecipadamente.

Brasília, 14 de agosto de 1986

A handwritten signature in cursive script, appearing to read 'Cristina Argenton Colonelli'.

*Cristina Argenton Colonelli
Coordenadora de Bolsas no Exterior*

e) Reminder letter

Vicosa, 30 de Novembro de 1986

Caro Sr. Empresario:

Voltamos a nos dirigir a V.Sa. para renovar nosso pedido de colaboracao de sua parte para o preenchimento do questionario de pesquisa encaminhado a sua empresa ha algumas semanas.

A sua participacao na pesquisa e de importancia fundamental para a conclusao e exito de nosso trabalho. Na oportunidade, ratifico que toda informacao prestada por V.Sa sera tratada de forma estritamente confidencial e que as empresas participantes da pesquisa nao serao de forma alguma identificadas isoladamente.

Gostaria de lembrar que o Banco do Brasil S/A colocou o Operador do Nipem da agencia de sua cidade ou vizinhanca a sua disposicao, para o caso de V.Sa. ter qualquer questao em relacao ao questionario.

Caso V.Sa. ja tenha preenchido e retornado o questionario, aceite meu pedido de desculpas e considere esta sem efeito.

Atenciosamente,

Telma R C G Barbosa.

APPENDIX 6

THE RESEARCH SITES

1. THE "ZONA DA MATA" REGION

1. Introduction.

The State of Minas Gerais is subdivided into regions or zones, one of which is Zona da Mata. It comprises 103 conurbations which accounted for 13.6 percent of the population of the State of Minas Gerais in 1970 (Governo do Estado, 1978). It is located at Southeast of Minas Gerais, a strategic location nearby the Brazilian major cities of Rio de Janeiro - the capital of the State of Rio de Janeiro, Belo Horizonte - the capital of the State of Minas Gerais, and Vitoria - the capital of the State of Espirito Santo. It is also within easy access to the major markets of Sao Paulo, Salvador and the Northeast of Brazil through good and important roads. Such a strategic location gives Zona da Mata a considerable advantage regarding access to raw material and labour sources, consumer markets and infrastructure.

Historically, the economic development of Zona da Mata cannot be separated from that of the State of Minas Gerais. Being within a state rich in gold, iron and other minerals and metal, Zona da Mata's first economic boom happened during the XVII century as a consequence of the highly lucrative activities of the mining industries. The development of the area, however, started latter, during the XVIII century, with the decline of the mining industry in the region and the advent of a diversified economy of subsistence. Such a process became more important during the XIX century with a new economic boom, this time based on coffee plantation and commercialisation (Universidade Federal de Vicosa, 1985).

This "coffee economy", as it has been usually referred to, created a demand for other goods and this led to industrialisation. By the beginning of the second half of the XIX century, the first urban centres of Zona da Mata were established and they commanded and coordinated the economic development of the area. Although in a fragile way, the economic exploitation of coffee beans becomes the basis of a capitalist accumulation and Zona da Mata output (gross product) and local economy represent an outstanding role in the economy of the State. Such an outstanding position, however, lasted only until the beginning of the XXth century (Universidade Federal de Vicosa, 1985).

Similarly to what happens in the rest of the Country, by the late 1930s the Zona da Mata coffee economy started declining, giving way to an apparently endless crisis due not only to unfavourable soil conditions, exhausted soil fertility and lack of new plantation areas, but also, and mainly, to the coffee producers' incapability to realise the need for new and more capitalist production systems. Since then, Zona da Mata, deeply locked within a gradual process of impoverishment, has been losing its once important and outstanding position within the economy of the State of Minas Gerais. It is interesting to note that, if, during the XIX century, Zona da Mata attracted and absorbed a variety of labour force, during the present time the region has been experimenting the opposite phenomenon with a wave of migration towards the major economic and industrial centres (Universidade Federal de Vicosa, 1985).

2. Main Industries.

The economy of Zona da Mata is based on the agricultural and manufacturing industries. Within the manufacturing industries small and medium-sized enterprises are prevailing and they are concentrated in the so-called traditional activities. They are textiles, food processing, clothing and footwear, furniture, timber processing, and leather industries (Governo do Estado, 1978). The modern manufacturing industry is relatively incipient accounting for less than a third of the

manufacturing employment in the Region while this index for the whole State of Minas Gerais is approximately 50 percent. The major modern manufacturing industries are metal-manufacturing, mechanic engineering, electric engineering, transportation goods, pulp and paper processing and chemicals (CEBRAE/IUPERJ, 1981).

The textile industry is the major manufacturing industry of Zona da Mata. It is fundamentally characterised by small and medium companies and alone accounted for more than a third of the manufacturing employment in the area, in 1970, and about 31 percent in 1975 (Governo do Estado, 1978). The food processing industry ranks second in terms of employment with 15 percent, in 1975 (Governo do Estado, 1978). Furniture, clothing and footwear industries have been constantly increasing their participation in the manufacturing sector and since 1970 these industries have been doing better in Zona da Mata than in the State as a whole. The pulp and paper processing industry and the metal-manufacturing industry also play an important role within the manufacturing sector and, in 1975, accounted for 8.3 percent and 4.4 percent of the employment, respectively (Governo do Estado, 1978). Other industries, such as mechanic engineering, electric engineering, chemicals and transportation goods do not yet perform significant role. Table I shows the participation of the various manufacturing industry sectors in the manufacturing employment of Zona da Mata.

The South of Zona da Mata is the Region's most industrialised area comprising the conurbations of Juiz de Fora, Uba and Cataguases. These 3 conurbations together, with 53 percent of the Region's population, accounted for 86 percent of the Region's manufacturing value added and 84 percent of the Region's manufacturing employment in 1974 (Governo do Estado, 1978). Such a concentration is partly due to the area's proximity to Rio de Janeiro and to good road linkage.

Juiz de Fora, Cataguases and Uba are the Regions' most industrialised cities. Juiz de Fora, the most important centre, accounted for 42 percent of the manufacturing employment and 44 percent of the value added of Zona da Mata, in 1974 (Governo do

Estado, 1978). Its main industries are textile and food processing with 37,7 percent and 10.5 percent of the city's manufacturing employment, respectively. In Juiz de Fora, the pulp and paper processing, metal-manufacturing and mechanic engineering industries are also outstanding with 20 percent of the city's manufacturing employment (1974 data).

Table I: Manufacturing Employment
Zona da Mata

Sectors	1970	1975
Textile	39.7	31.8
Food Processing	15.2	14.4
Pulp and Paper	7.3	8.3
Metal Manufacturing	5.6	4.4
Furniture Making	5.2	6.9
Clothing and Footwear	2.9	6.8
Mineral Extraction	2.7	1.9
Leather Goods	2.5	1.5
Printing	2.4	1.7
Drink	2.0	1.4
Timber	1.7	1.9
M-Metal Mineral goods	1.5	0.9
Plastic goods	0.7	1.3
Electric Engineering, Electronics and Mechanic Engineering	2.2	3.9

Source: Governo do Estado, 1978: table 9
(These are not Census data)

Cataguases accounted for 11 percent of the manufacturing employment of Zona da Mata in 1974 (Governo do Estado, 1978). According to 1970 census data, the textile industry was prevailing with 59 percent of the local manufacturing employment and the pulp and paper industry ranked second with 17.2 percent of the local employment.

Uba employed about 10 percent of the manufacturing labour force in 1974 (Governo do Estado, 1978). It is characterised by its wooden furniture making industry which in that year accounted for half of the local manufacturing employment. Also very important for Uba's economy are the clothing and footwear industry which, in 1970, employed 22.5 percent of the local manufacturing labour force (Governo do Estado, 1978).

The Northern part of Zona da Mata comprises 4 other micro-regions which altogether employed 20 percent of the Region's manufacturing labour in 1974 (Governo do Estado, 1978). In the Northeast of Zona da Mata, only two cities are characterised by a significant level of industrialisation: Ponte Nova e Muriae.

3. The Present Problems.

The present economic decline of Zona da Mata started with the coffee economy crises and has worsened ever since. From the 1940s Juiz de Fora, the Region's major city and manufacturing centre, has been losing its economic power and dynamism and this has given new dimensions to the Region's economic decline (CEBRAE/IUPERJ, 1981). In addition, the agricultural sector of the entire Region has also been declining and the losses in the agricultural sector have not been compensated by the level of growth in the manufacturing sector. Due to these problems, Zona da Mata has been showing for the past decades slower rates of growth than the majority of the other Regions in the State (CEBRAE/IUPERJ, 1981; Governo do Estado, 1978). Tables II and III illustrate the participation of the major manufacturing sectors of the Region in the economy of Juiz de Fora, the major economic centre, and the relative position of Zona da Mata's economy within the State of Minas Gerais.

Table II: The Traditional Manufacturing Industries of Juiz de Fora

MANUFACTURING SECTORS	1960			1970		
	EST	EMP	VA	EST	EMP	VA
Food Processing	21.9	9.4	14.0	18.2	10.6	16.3
Textile	12.9	53.5	43.4	18.9	43.4	36.8
Clothing & Footwear	10.9	6.1	4.8	7.1	6.4	3.4
Timber	6.1	1.7	1.4	3.7	1.7	0.9
Furniture Making	7.3	1.1	0.6	9.6	5.1	3.1

Source: CEBRAE/IUPERJ, 1981: tables 1 and 2.

In the present, most of the economic decline of Zona da

Mata is rooted in the relative losses of its textile industry since this has been the Region's major manufacturing sector. Such losses, indicated by reducing levels of employment and decreasing value added, are said to be caused by Zona da Mata's private sector's lack of competitiveness relative to newly-formed, modern manufacturing centres of other Regions. Due to strong levels of competition from these new centres, Zona da Mata enterprises, have been increasingly losing market share.

Table III: Zona da Mata Economic Decline
Participation of ZM in the State Economy

	Output Value (%)	Value Added (%)	Manufacturing Employment (%)
1950	28.0	28.0	19.1
1959	20.4	20.4	18.3
1970	9.6	9.1	15.2
1974	7.3	6.5	12.7

Source: Governo do Estado, 1978: tables 3 and 4.

The decline of the agricultural sector and consequent lack of job opportunity have led to internal rural migration. Rural people leave their towns heading to major urban centres of the Region, particularly the three conurbations in the South of the Region, where job opportunity, at least in absolute terms, is greater. Such a process has given rise to excessive urbanisation of the Region at the expense of rural development. In the urban centres, some of the immigrant labour is employed by the manufacturing sector and it is interesting to note that a great proportion of this labour force is female, if it is considered that the textile industry, which is the major manufacturing sector in the Region, employs preferentially female labour force.

The employment capability of these urban centres, however, cannot be greater than their production sectors growth rate. Consequently, most of the immigrant labour force, particularly male, do not find jobs there and, together with part of the urban population, tend to migrate to other centres. One inhabitant in three is said to have migrated during the

sixties, and Zona da Mata's population which in 1960 represented 15.6 percent of the State's population decreased to 13.6 percent in 1970. (Governo do Estado, 1978). This fact gives rise to a problem of greater concern. Tables IV, V, and VI present evidence of the migration process.

Table IV: Zona da Mata Population Trend
1960-1980

	Rural (%)	Urban (%)	Relative to State's		
			Total	Rural	Urban
1960	63.8	36.2	15.6	17.2	14.3
1970	50.8	49.1	13.6	14.8	12.8
1980(a)	39.4	60.6	(b)	(b)	(b)

Source: Governo do Estado, 1978: table 29
(a) Source: Univ. Fed. Vicosa, 1985:
table 8.
(b) Not available.

Table V: Changes in the Rural and
Urban Populations of Zona
da Mata, 1960-1980

	Rural	Urban
1960-70 (a)	- 2.1	3.2
1970-80 (b)	-19.1	28.2

Sources: (a) Governo do Estado, 1978:
table 29.
(b) Un. Fed. Vicosa, 1985:
table 7

Table VI: Annual Population
Growth, 1960-1970

City/Region	%
ZONA DA MATA	0.1
MINAS GERAIS	1.5
BRAZIL	2.8
BELO HORIZONTE	4.5
RIO DE JANEIRO	2.8
VITORIA	5.3

Source: Governo do Estado, 1978:
table 27.

Given Zona da Mata's location, the rural immigrant and part of the local urban population look for better job opportunity in the big cities such as Rio de Janeiro, Belo Horizonte, Vitoria and Sao Paulo contributing both to worsen the social problems in these places and to increase their already very high population growth rate. At the same time, Zona da Mata is left without a great part of its potentially most capable inhabitants, including the young (During the period 1970-80 the working population of Zona da Mata decreased by 13.8 percent (Un. Fed. Vicosa, 1985). This has been causing deterioration of the Region labour force both in terms qualitative and quantitative (Governo do Estado, 1978).

II. THE STATE OF PARANA

1. Introduction

The State of Parana, along with the States of Santa Catarina e Rio Grande do Sul, comprises the Brazilian South Region. Parana is neighboured by the State of Santa Catarina at the South, the State of Sao Paulo at the North and Northeast, the State of Mato Grosso and the nations of Argentina and Paraguay at the West, and the Atlantic Ocean at the East. Parana is a land of 199.555,89 square kilometres corresponding to 2,35 percent of the national territory (Padis, 1981), with 7,629,392 inhabitants, of which 58.6 percent live in urban areas (FIBGE, 1984a).

Historically, Parana's colonisation, peopling and economic development have been a result of what has been conventionally denominated "economic cycles". The first of these was the gold cycle (intensive extraction and economic exploitation of gold) which lasted until mid 1700s. As a support to the major activity of gold mining, agricultural and cattle-breeding activities - two important elements of Parana's present economy - and manufacturing activities evolved in certain places such as Curitiba, the capital of the State (Carmo, 1981).

The economic exploitation of matte, a native herb used to produce a strong flavoured tea, led to another economic cycle which lasted from the end of the 18th century until the first decades of the 20th century. During that period many facts helped boosting the local economy: the separation of Parana from the state of Sao Paulo (1853), the beginning of wood extraction as an economic activity (since 1886) and the abolishing of slavery (1888), which contributed to the formation of a local market (Carmo, 1981).

A new economic boom started at the end of the 19th century with the plantation and commercialisation of coffee which evolved and flourished rapidly. This attracted many immigrants from Sao Paulo, Minas Gerais and from the Northeast area of the country. The wave of immigration together with the cotton economic exploitation by the Japanese immigrants were two other forces driving the process of economic development of the State of Parana. From 1924 the manufacturing, service and commerce activities emerged as supporting forces to the major activity of coffee exploitation. From 1975, when serious frost destroyed large part of the coffee plantation, the coffee cycle started declining.

More recently, cattle-breeding activities (since 1950 with the immigrants from Rio Grande do Sul) and economic exploitation of soya beans (since 1970) have led the State's economic development.

2. The main economic activities and the major cities.

As it can be concluded from the above historical review, the State of Parana's economy has been historically based on the primary sector activities mainly those of agricultural and cattle-breeding. Thus, up until 1970 over 60 percent of the State's population would be directly or indirectly involved with these activities (Secretaria do Estado, 1983).

As at 1980, Parana had 454,103 agricultural and cattle-breeding establishments of which 78.6 percent were

dedicated to agricultural activities only, 16 percent to cattle-breeding and 2,8 percent to "agropecuaria". In this year, the heads of bovine were calculated to be 7,893.313, 60 percent of which was in the North region of the state (FIBGE, 1984b)

The major part of Brazil's agricultural product is produced in the State of Parana. The State alone produces 1/4 of the national grain production (Padis, 1981), and its major crops include soya beans, sugar-cane, corn, wheat, manioc, beans, coffee, cotton, and fruits and vegetables.

The secondary economic sector - manufacturing industry - has been making only a small contribution to the state internal income. According to the 1980 census, the sector employs 235,073 people in its 14,136 establishments including the mineral extraction industry, the manufacturing industry and the manufacturing servicing companies. Out of the total number of establishments, 77 percent are located in urban areas census (FIBGE, 1984c). It is characterised by agro-industrial and traditional manufacturing industries which process in an incipient way both the local raw materials supplied by the agricultural sector and a small number of non-metal-minerals manufacturing goods (Doria, 1978).

The State's major cities are Curitiba, Londrina, Ponta Grossa, Maringa and Cascavel. The conurbation of Curitiba, comprising Curitiba, the capital of the State, and its satellite towns, according to the 1980 census, has about 1,440,626 inhabitants (FIBGE, 1984a). The major industries are, according to the number of establishments, food processing, non-metal minerals goods, furniture making and timber processing (FIBGE, 1984c).

Londrina, located at 379 kilometres from Curitiba, is the economic and commercial centre of the Northwest of the State. The conurbation of Londrina has 265,768 inhabitants and the main manufacturing industries are food processing, metal manufacturing, clothing and footwear, timber processing and non-metal minerals good (FIBGE, 1984a, 1984c).

Ponta Grossa, with 177,102 people, is at 114 kilometres from Curitiba towards the interior of the State. Its major crops are potatoes, soya beans and wheat and coffee. Cattle-breeding activities are also important. The major manufacturing industries are timber processing, metal manufacturing, mechanic engineering, furniture making and non-metal minerals good (FIBGE, 1984a, 1984c).

Maringa, with 168,194 inhabitants, is another important centre of the Northwest of the State, located at 428 kilometres from Curitiba. Its major crops are coffee and wheat and its major manufacturing industries are food processing, clothing and footwear, metal manufacturing, mechanic engineering and furniture making (FIBGE, 1984a, 1984c).

Cascavel, located at 520 kilometres west of Curitiba, has about 110,340 inhabitants in its greater area (FIBGE, 1984a). Its economy is fundamentally dependent on the agricultural sector whose major crops are soya beans, rice, cotton, sugar-cane, beans, manioc, corn and wheat. Cattle-breeding activities are also very representative in the total income of the state. Up until 1980 Cascavel had in all 321 manufacturing establishments which employed 4,672 people. The local city government has planned to change the economic profile of the city by attracting investment in the secondary sector. Due to such policy 270 new manufacturing companies have been established in Cascavel from 1983 to 1987 (Lachini, 1987; Rizzi, 1987). The major manufacturing industries according to the number of establishments are timber processing, food processing, mechanic engineering, furniture making, metal manufacturing (FIBGE, 1984c).

3. The present situation and problems

During a relatively short period of time, that is from 1920 to 1970, The State of Parana experienced a great economic boom notable even in world terms and based mainly on the primary industry. Such an economic expansion meant an increase

in the total State's population mainly due to migration from other states, and from other countries too, of dimensions so far unknown in the country: from 1920 to 1960 Parana's population multiplied by a factor of 6.2 whereas the population of the whole country increased by a factor of 2.3. Whereas in 1920 Parana's population represented 2.24 percent of the country's in 1970 it represented 7.44 percent (Padis, 1981; Carmo, 1981). According to the 1980 census, 27.9 percent of the state's population is made up of people who were not born in Parana of which 18.6 percent moved in during the 1970's (FIBGE, 1984a).

The population increase has resulted in problems of over population and intense urbanisation of areas where the process of expansion of the secondary and tertiary economic sectors has not been rapid enough. For instance, whereas in 1940, 24.5 percent of the population were located in urban areas, in 1970 such a proportion went up to 36.1 percent (Doria, 1978; Padis, 1981; Secretaria do Estado, 1983) and in 1980 to 58.6 percent (FIBGE, 1984a). In addition, according to the 1980 census, out of the immigrant population (27.9 percent of the total) about 60 percent went to urban areas. Moreover, internally people are constantly migrating from rural to urban areas. According to the 1980 census, about 63 percent of the people who do not live in their place of birth (54,5 percent of the state total population!), live now in urban areas and 45,4 percent of which previously lived in rural areas (15,5 percent of the state population!). Table VII illustrates the process of urbanisation in the State of Parana as compared to the States of Sao Paulo e Minas Gerais, the most industrialised states of the country.

During the 1970's, given the pressures of Brazil's economic development model of foreign capital and technology import, Parana directed its efforts towards the needs of the agricultural export markets as an attempt to help to pay back Brazilian crude oil imports and foreign debt which was already increasing rapidly (Secretaria do Estado, 1983). This meant the introduction of modern technology in the agricultural sector to help increase productivity of "cash crops", notably soya beans

and wheat (BADEP, 1983; Lachini, 1987). The wave of rural migration was further stimulated by the decimation of the coffee plantation in 1975 caused by serious frost. Between 1970 and 1980 about 143 thousand inhabitants migrated from the West area of the state (BADEP, 1983; Lachini, 1987). The migrating labour force heads to the major industrialised centres of Sao Paulo and to Parana's major cities where most of it settled in slum areas located at the city periphery and became "boia fria" due to lack of job opportunity (Secretaria de Estado, 1983; BADEP, 1983).

Table VII: Population by sectors
(Percentage on total)

State	Year	Urban	Rural
PR	1940	24,5	75,5
	1950	25,0	75,0
	1960	30,9	69,1
	1970	36,1	63,9
	1980	58,6	41,4
MG	1940	25,0	75,0
	1950	29,8	70,2
	1960	39,8	60,2
	1970	52,8	47,2
SP	1940	44,1	55,9
	1950	52,6	47,4
	1960	62,8	37,2
	1970	80,3	19,7

PR = State of Parana; MG = State of Minas Gerais
SP = State of Sao Paulo.
Sources: Doria, 1978 and FIBGE, 1984a

As another consequence of the process of modern technology introduction many small rural properties' owners have been forced to sell out their businesses and farms and have become proletarians (Secretaria de Estado, 1983). Thus, up until the beginning of the present decade, 150 thousand small rural establishments have been closed down (Secretaria de Estado, 1983).

Despite its powerful agricultural basis which gives support to certain manufacturing industries and servicing industries related to it (agro-industry), Parana's economy also

suffers from the effects of the national economic crisis: inflation rate that exceeds any level previously reached, high levels of unemployment, substantial decreases in the productive activities, flatterring of wage and salary levels and reduction of the population's purchasing power which tend to lead to an increase in companies' idle capacity. Locally the situation has been worsened by the economic problems caused by the decimation of the coffee plantation (Lachini, 1987).

Despite the above mentioned problems the state's economy had a rate of increase of 13 percent during the last decade - a rate by far greater than the national average. The internal income experienced a 262 percent increase and the income per head increased 229 percent. On the other hand the manufacturing industry sector income increased by a factor of 6 and that of the agricultural sector by a factor of 3 (Exame, 1984).

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APPENDIX 7

Tavares' Classification of Industry Structure
for Developing Nations

1. PURE OR CONCENTRATED OLIGOPOLY

. Major Characteristics:

- . Low proportion of labour per product unit,
- . High concentration index,
- . High ratio capital/labour of industry leaders as compared to remaining establishments,
- . High entry barriers.

. Type of Goods:

- . Homogeneous, basic industrial inputs and standardised industry equipments.

Sub-group a: capital goods produced in scale

Sub-group b: capital goods made to clients order

. Major industry sector:

- . Chemicals and fuels, metal-manufacturing, paper processing.

Sub-group a: equipments and machinery, tractors assembling and manufacturing, agricultural machinery and equipment.

Sub-group b: equipments for industrial, commercial, hydraulic and thematic premises and plants.

2. CONCENTRATED-DIFFERENTIATED OLIGOPOLY

. Major Characteristics:

- . High technical concentration index,
- . Production scale discontinuity
- . Product differentiation

. Type of Goods: Durable consumer goods and accessories.

. Major Industry sectors:

- . Vehicles, electric goods (home appliances such as radio, sound equipment, TV); vehicle accessories, tools and parts; rubber materials for vehicles; electronic materials.

3. DIFFERENTIATED OLIGOPOLY

. Major Characteristics:

- . High mark-up
- . Average concentration ratio
- . Product differentiation

. Type of goods: Highly differentiated, non-durable consumer goods.

. Major industry sectors:

- . Pharmaceuticals, soaps and toiletry; milk processing and products.

4. COMPETITIVE OLIGOPOLY

. Major Characteristics:

- . Large enterprises are leaders of the market
- . Low concentration ratio
- . low technical entry barriers

. Type of goods: Traditional, non-durable consumer goods.

. Major industry sectors:

- . Food processing; drink; textile (cotton and synthetics); printing, others.

5. NON-OLIGOPOLISTIC MARKETS

. Major Characteristics:

- . Very low concentration-ratio
- . large firms are leaders
- . no firm contribute significantly to total market supply

. Type of goods:

- . Sub-group a: homogeneous goods, mainly consumer intermediary goods.
- . Sub-group b: Differentiated non-durable consumer goods.

. Major sectors:

- . Furniture making, footwear, clothing, timber processing, natural thread (fibre) processing, coffee beans and other cereals processing, bakery products.

b) Similarity Matrix

DATA INFORMATION: 28 UNWEIGHTED CASES ACCEPTED 0 CASES REJECTE BECAUSE OF MISSING VALUE.
SIMPLE MATCHING MEASURE USED

SIMPLE MATCHING SIMILARITY COEFFICIENT MATRIX

Case	Comp01	Comp02	Comp03	Comp04	Comp05	Comp06	Comp07	Comp08	Comp09
Comp02	.7778								
Comp03	.7778	.7222							
Comp04	.8056	.6944	.7500						
Comp05	.8056	.7500	.7500	.7778					
Comp06	.7222	.7778	.7222	.7500	.7500				
Comp07	.7778	.7778	.7222	.6389	.7500	.8333			
Comp08	.8333	.7778	.6667	.6389	.7500	.7778	.8889		
Comp09	.7500	.6944	.6944	.8889	.7222	.6944	.5833	.5833	
Comp10	.8611	.6944	.8056	.8333	.7778	.7500	.7500	.6944	.7222
Comp11	.7500	.6389	.6944	.7222	.6767	.7500	.6389	.6389	.6667
Comp12	.7222	.6111	.6767	.6944	.7500	.6767	.6767	.6111	.5833
Comp13	.6389	.5278	.5833	.6111	.5656	.5833	.5833	.5833	.6111
Comp14	.5556	.6767	.5556	.5278	.5833	.6767	.6111	.6767	.6389
Comp15	.7222	.7778	.7222	.6389	.7500	.8889	.8889	.7778	.5833
Comp16	.8056	.6389	.8056	.7222	.7222	.6964	.6389	.6984	.6667
Comp17	.6667	.5556	.6111	.5833	.6389	.5556	.6111	.6111	.5278
Comp18	.6944	.7500	.6944	.6667	.6667	.8056	.8056	.7500	.6111
Comp19	.5833	.5833	.5833	.5545	.6111	.6389	.5278	.5833	.6111
Comp20	.6667	.5556	.6111	.6944	.5833	.5556	.5000	.5556	.6944
Comp21	.5833	.5278	.5833	.7222	.5556	.4722	.4167	.4722	.7778
Comp22	.5278	.6389	.5278	.5000	.5556	.6389	.5833	.5833	.5000
Comp23	.8058	.6944	.7500	.7778	.7222	.7500	.6944	.6944	.7222
Comp24	.6944	.6944	.7500	.6667	.6667	.6944	.6944	.6944	.6667
Comp25	.7222	.6667	.7778	.6944	.7500	.6111	.6667	.6111	.6944
Comp26	.5556	.6667	.6111	.6944	.6944	.6667	.6667	.6667	.6389
Comp27	.7778	.6667	.7778	.7500	.7500	.6111	.6111	.6111	.7500
Comp28	.7778	.7222	.7222	.6944	.6389	.6667	.7222	.6667	.6389
Case	Comp10	Comp11	Comp12	Comp13	Comp14	Comp15	Comp16	Comp17	Comp18
Comp11	.7778								
Comp12	.8611	.8058							
Comp13	.6667	.6111	.5833						
Comp14	.5833	.6389	.5556	.6944					
Comp15	.7500	.6944	.6667	.6389	.6111				
Comp16	.7222	.7222	.6389	.6667	.5278	.6944			
Comp17	.6389	.6944	.6667	.6389	.6111	.6667	.5833		
Comp18	.6667	.6667	.5833	.5000	.5278	.7500	.5556	.4722	
Comp19	.6111	.6667	.6389	.6667	.7500	.5833	.6111	.6944	.9000
Comp20	.6944	.6389	.6667	.7500	.6111	.5000	.6389	.6667	.4167
Comp21	.6111	.5556	.5833	.6667	.6389	.4167	.6111	.5833	.3889
Comp22	.5000	.6667	.5278	.5556	.6944	.5833	.5556	.5278	.6111
Comp23	.7778	.7222	.6944	.6111	.5833	.6944	.8333	.6944	.5556
Comp24	.7222	.6667	.6389	.7778	.7500	.6944	.7222	.5833	.6111
Comp25	.6944	.6389	.6111	.5278	.5000	.6667	.7500	.6667	.5278
Comp26	.5833	.5278	.5556	.5833	.6111	.6111	.5833	.5556	.5278
Comp27	.7500	.6389	.6111	.6389	.5556	.6111	.8056	.7222	.5278
Comp28	.6944	.7500	.6111	.6389	.5556	.6667	.6944	.6111	.7500
Case	Comp19	Comp20	Comp21	Comp22	Comp23	Comp24	Comp25	Comp26	Comp27
Comp20	.7500								
Comp21	.6111	.7500							
Comp22	.4444	.5278	.5000						
Comp23	.6667	.6944	.6667	.6111					
Comp24	.6667	.7500	.6667	.6111	.7222				
Comp25	.5278	.5556	.6389	.5278	.8056	.6389			
Comp26	.5278	.6111	.6389	.5833	.6389	.6944	.6667		
Comp27	.6389	.6667	.6944	.5278	.8056	.6389	.8333	.6111	
Comp28	.4722	.5000	.5278	.6389	.6944	.6389	.6667	.5556	.6667

c) Results of the Cluster Analysis: Agglomeration Schedule

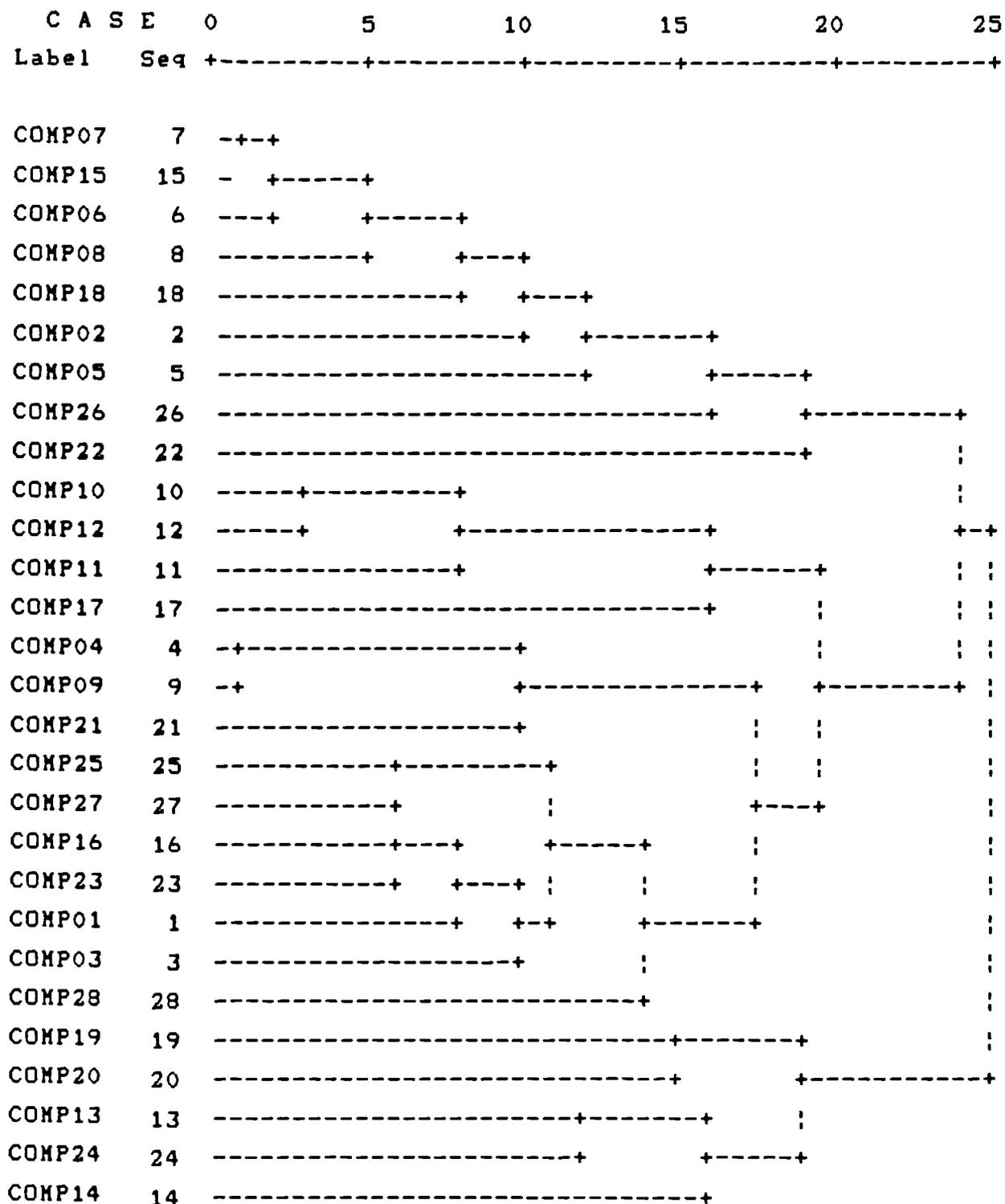
##AGGLOMERATION SCHEDULE USING AVERAGE LINKAGE (WITHIN GROUP)##

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	7	15	.888890	0	0	3
2	4	9	.888890	0	0	13
3	6	7	.870370	0	1	5
4	10	12	.861110	0	0	9
5	6	8	.842593	3	0	8
6	25	27	.833330	0	0	14
7	16	23	.833330	0	0	10
8	6	18	.816668	5	0	11
9	10	11	.814816	4	0	20
10	1	16	.814816	0	7	12
11	2	6	.801853	0	8	15
12	1	3	.796298	10	0	14
13	4	21	.796296	2	0	22
14	1	25	.788890	12	6	17
15	2	5	.783069	11	0	19
16	13	24	.777780	0	0	21
17	1	28	.764550	14	0	22
18	19	20	.750000	0	0	23
19	2	26	.748016	15	0	24
20	10	17	.740741	9	0	25
21	13	14	.740740	16	0	23
22	1	4	.730246	17	13	25
23	13	19	.716667	21	18	27
24	2	22	.714506	19	0	26
25	1	10	.706653	22	20	26
26	1	2	.674132	25	24	27
27	1	13	.656304	26	23	0

d) Results of the Cluster Analysis: The Dendrogram

***** DENDROGRAM USING AVERAGE LINKAGE (WITHIN GROUP) *****

RESCALED DISTANCE CLUSTER COMBINE



2. SURVEY DATA

a) Results of the Cluster Analysis: Agglomeration Schedule

HIERARCHICAL CLUSTER ANALYSIS

##AGGLOMERATION SCHEDULE USING AVERAGE LINKAGE (WITHIN GROUP)##

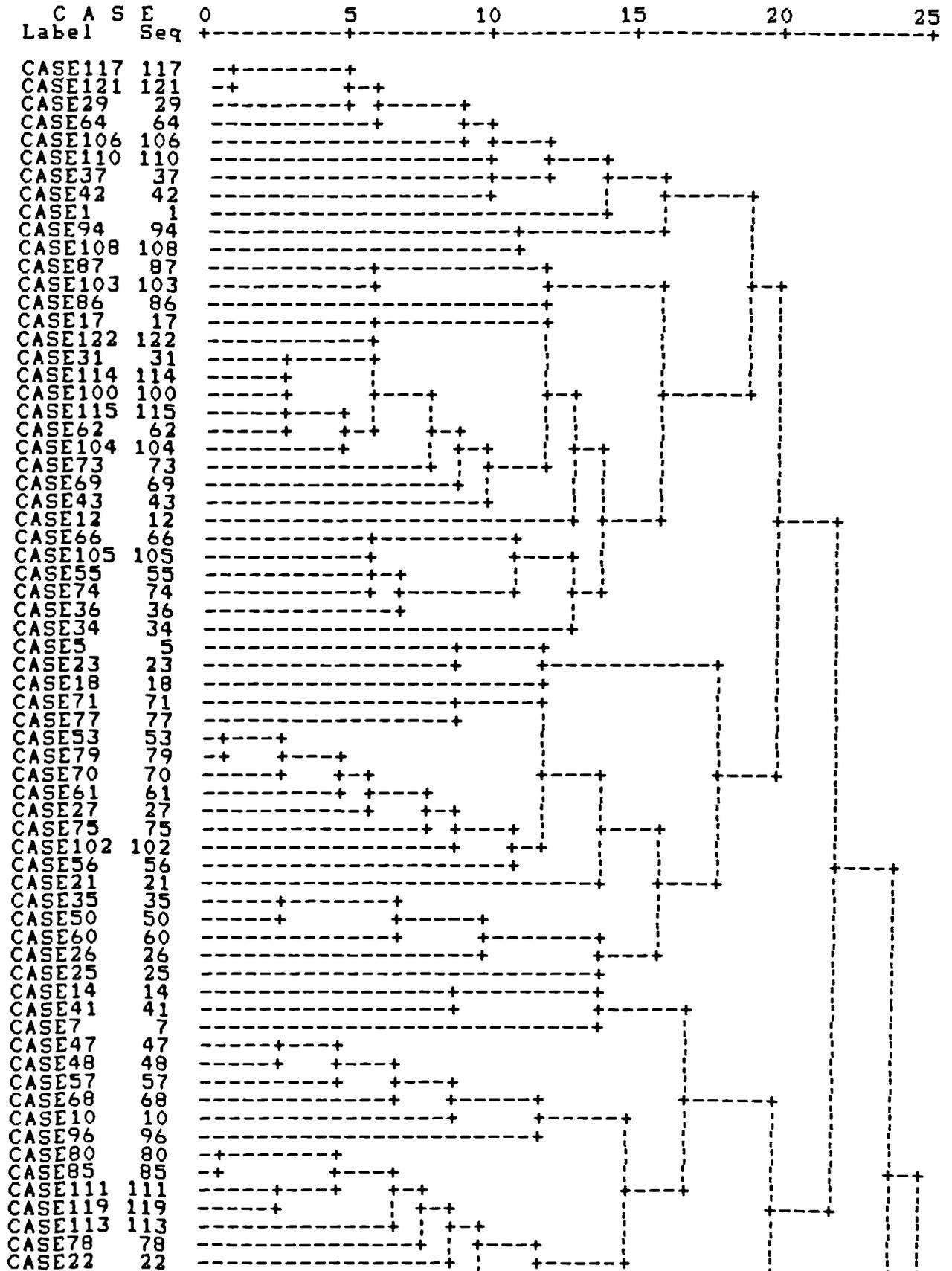
Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
1	117	121	.964290	0	0	16
2	80	85	.964290	0	0	19
3	53	79	.964290	0	0	5
4	40	67	.964290	0	0	17
5	53	70	.928573	3	0	18
6	111	119	.928570	0	0	19
7	100	115	.928570	0	0	13
8	31	114	.928570	0	0	28
9	82	109	.928570	0	0	53
10	72	95	.928570	0	0	40
11	35	50	.928570	0	0	31
12	47	48	.928570	0	0	15
13	62	100	.928570	0	7	14
14	62	104	.910715	13	0	28
15	47	57	.904763	12	0	35
16	29	117	.904763	0	1	29
17	40	112	.904763	4	0	41
18	53	61	.904763	5	0	30
19	80	111	.898810	2	6	34
20	17	122	.892860	0	0	75
21	6	120	.892860	0	0	57
22	111	118	.892860	0	0	39
23	66	105	.892860	0	0	74
24	87	103	.892860	0	0	81
25	44	91	.892860	0	0	33
26	88	84	.892860	0	0	57
27	55	74	.892860	0	0	32
28	31	62	.888094	8	14	36
29	29	64	.886905	16	0	43
30	27	53	.885715	0	18	38
31	35	60	.880953	11	0	62
32	36	55	.880953	0	27	74
33	44	45	.880953	25	0	64
34	80	135	.878572	19	0	37
35	47	68	.875000	15	0	55
36	31	73	.870747	28	0	54
37	78	80	.869048	0	34	42
38	27	75	.861904	30	0	56
39	15	101	.857143	0	22	90
40	3	72	.857143	0	10	58
41	40	93	.857143	17	0	60
42	22	78	.857142	0	37	61
43	29	106	.857142	29	0	65
44	11	124	.857140	0	0	66
45	65	92	.857140	0	0	95
46	71	77	.857140	0	0	80
47	51	76	.857140	0	0	94
48	32	49	.857140	0	0	86
49	37	42	.857140	0	0	77
50	14	41	.857140	0	0	96
51	24	39	.857140	0	0	63
52	5	23	.857140	0	0	83
53	82	99	.857140	9	0	82
54	31	69	.853316	36	0	59
55	10	47	.850000	0	35	78
56	27	102	.846938	38	0	67
57	6	84	.845238	21	26	73
58	3	63	.845238	40	0	102
59	31	43	.839284	54	0	75
60	33	40	.835714	0	41	84
61	22	89	.835458	42	0	79

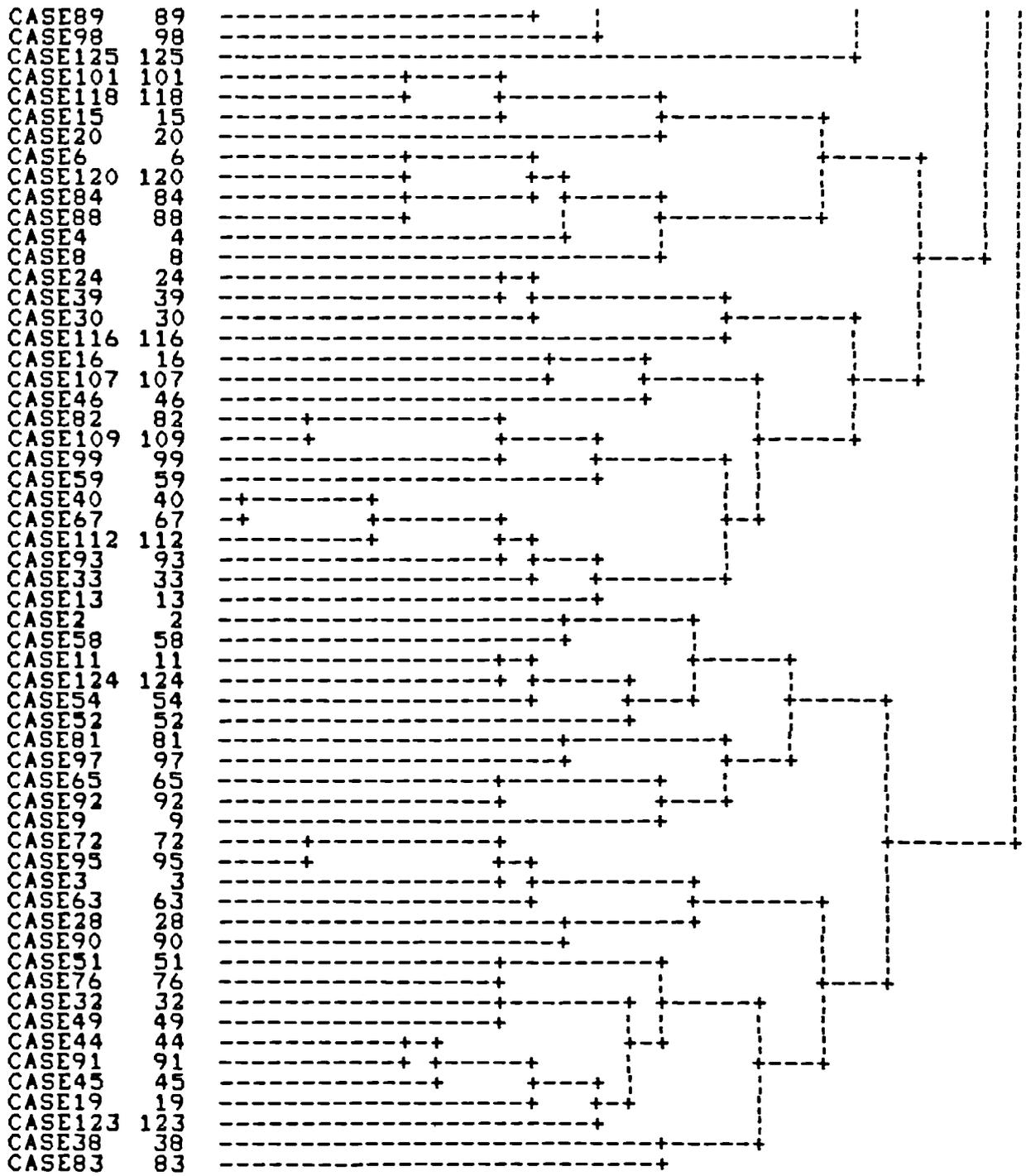
62	26	35	.833333	0	31	93
63	24	30	.833333	51	0	106
64	19	44	.833333	0	33	76
65	29	110	.833332	43	0	77
66	11	54	.833330	44	0	85
67	27	56	.826529	56	0	80
68	94	108	.821430	0	0	104
69	16	107	.821430	0	0	97
70	81	97	.821430	0	0	108
71	28	90	.821430	0	0	102
72	2	58	.821430	0	0	101
73	4	6	.821428	0	57	92
74	36	66	.821428	32	23	88
75	17	31	.816882	20	59	87
76	19	123	.814286	64	0	86
77	29	37	.813774	65	49	91
78	10	96	.811904	55	0	100
79	22	98	.811507	61	0	100
80	27	71	.811110	67	46	89
81	86	87	.809526	0	24	107
82	59	82	.809521	0	53	103
83	5	18	.809520	52	0	112
84	13	33	.807142	0	60	103
85	11	52	.803570	66	0	101
86	19	32	.802721	76	48	94
87	12	17	.800864	0	75	99
88	34	36	.795237	0	74	99
89	21	27	.793505	0	80	105
90	15	20	.791666	39	0	115
91	1	29	.789682	0	77	104
92	4	8	.788094	73	0	115
93	25	26	.785715	0	62	105
94	19	51	.785714	86	47	109
95	9	65	.785713	0	45	108
96	7	14	.785713	0	50	110
97	16	46	.785713	69	0	111
98	38	83	.785710	0	0	109
99	12	34	.782912	87	88	107
100	10	22	.779591	78	79	110
101	2	11	.771428	72	85	113
102	3	28	.779048	58	71	116
103	13	59	.767459	84	82	111
104	1	94	.766233	91	68	114
105	21	25	.764582	89	93	112
106	24	116	.761905	63	0	118
107	12	86	.758842	99	81	114
108	9	81	.757143	95	70	113
109	19	38	.750649	94	98	116
110	7	10	.743930	96	100	119
111	13	16	.743589	103	97	118
112	5	21	.737676	83	105	117
113	2	9	.729870	101	108	120
114	1	12	.728037	104	107	117
115	4	15	.722221	92	90	121
116	3	19	.720588	102	109	120
117	1	5	.709130	114	112	122
118	13	24	.709033	111	106	121
119	7	125	.706766	110	0	122
120	2	3	.691703	113	116	124
121	4	13	.687830	115	118	123
122	1	7	.678097	117	119	123
123	1	4	.658412	122	121	124
124	1	2	.636303	123	120	0

b) Results of the Cluster Analysis: The Dendrogram

***** DENDROGRAM USING AVERAGE LINKAGE (WITHIN GROUP) *****

RESCALED DISTANCE CLUSTER COMBINE





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