

CHAPTER IV

THE FUNCTIONS OF THE RURAL SMALL FIRMS

The research findings manifested the multifarious roles of the rural small-firms, in many respects performing indispensable roles peculiar to their locality, size and modus operandi, and thus unsuited to their larger counterparts, especially in the urban areas. It is these special functions which guarantee the future of the sector within the economy of the country.

Throughout the survey, by observation in most cases supported by statistical data, the rural small-firms were seen to perform roles which can be categorised thus:

- I Economic
- II Developmental
- III Psychological
- IV Sociological
- V Political, and
- VI General

The above classification of roles are not intended to indicate any exclusivity of each, as many are inter-related, but rather the categories highlight the diversified roles that the rural small-firms play.

I Economic Functions:

A. Economic Roles vis-a-vis the larger firms:

The roles of the rural small firms in terms of their importance to the economy, vis-a-vis the larger firms, have been discussed in Chapter I. Thus, despite the trends to decline of this sector in the last decade or so, the small firms still continue to have a sizeable share of the economy's enterprises and employment.

Their general economic functions can be discussed in terms of their principal activities in relation to the larger firms. From this point of view the small firms covered in the survey undertook one or more of the following activities:

- 1) as competitors - where the small firms assumed a function of direct competition against the larger firms.
- 2) as satellites, where the small firms were dependant upon one or two large companies for a significant (>50 per cent) proportion of their business.
- 3) as specialists, where the small firms were carrying out functions which were not or could not be performed by larger firms.
- 4) as jobbers, where they produced products made to the specification of individual customers, and
- 5) as marketeers, where the small firms manufactured products to their own design and marketed them to all comers.

The satellite functions were manifested in four main areas:

- a) as suppliers of materials and components, often as sub-contractors. These were observed to be key roles performed in new industries.
- b) as service agencies to the larger firms,
- c) as dealers or distributors, normally for the larger firms, and
- d) as customers who used rather than distributed the products of the larger competitors.

Table 3-6 shows the distribution of the firms in the direct sample in terms of the above economic roles. It indicates that 30 per cent of the firms were consumers of larger-firms' products and/or services. Therefore, these firms served as additional outlets for the larger-firms' production.

All the same, about 28 per cent of the firms were satellites in the sense that they were dependent on not more than two or three large firms for their 'livelihood'. In this role, the small firms revealed their extreme vulnerability, as they depended on so few consumers as outlets for the major part of their output. Yet it was this function of the small firms that contributed in no small measure towards the mass-production capacity of the large firms. The small firms undertook

contract work to manufacture component-parts, thereby enabling larger firms to concentrate on those activities where their efforts were more effective.

The 14 firms which were wholly satellites were found to have assumed this role not as part of a deliberate policy or strategy, but in consequence of being offered a contract in the first instance by a large firm for the supply of certain components or parts, and gradually letting such orders become a greater proportion of their output because of their preference for such larger orders, from an apparently stable source.

This satellitic role has also in two cases helped launch the firms concerned, while in several other cases it has at least assisted the firms in their foundation years. In both of the former cases, each principal was initially employed as a salesman. During this time their desire to start business emerged. This became practicable when each came into contact with, and was assured of a potentially continuous contract by one of the client firms of his employer. This firm was still making the same and related parts for the same large firm, while the other firm which started likewise has now progressed into marketing its own products, and this was gradually enabling the firm to phase out of the satellite role and to assume a marketeer role in its own right.

In several other cases the satellite role became the immediate stage in the small firms' growth from being

the local servicing one-man workshop, to becoming a marketeer. The best example was provided by Firm F, quoted earlier.

Another example, however, was to a case where there was the opposite development: the firm changed its role from that of a marketeer into that of a satellite.

Case: Firm M: The change was the result, through a trade contact, of the firm obtaining a large order of certain aircraft components, at a time when there was a decline in the demand for the firm's existing product, which was a type of toy. The satisfaction of the aircraft-client yielded a repeat order and, gradually, the firm has assumed a satellite function, eventually ceasing to make its own lines. However, lately, after the firm had experienced the effects of the 'Rolls-Royce' collapse, it has decided to diversify with a view to becoming a jobber for multiple clients.

The assumption of the satellite role in the sampled firms has been facilitated by the conditions prevailing in, or the policy of, the larger firms involved. In most cases, the larger firms were forced to, or preferred to, sub-contract a part of their work in order to concentrate on their principal activities. The respondents of the satellite firms gave one of three reasons why the large firms have contracted out their work:

- a) capacity factor: where the client firms were working at full capacity and had to contract out certain parts of the production work in order to meet their production schedules. (Firms F, K, AM and AP in the sample have benefited from this situation).

- b) Specialisation: where the operation required specialised skill/equipment, not available in or not economical to the large firms. (Firms AB, AM and AC benefited in this instance.)
- c) Economy: where the sub-contracting firms were enjoying some special advantage that enabled them to carry out certain operations at a lower cost than the large client-firms. (Most of the satellite firms have this advantage in some areas by virtue of their size and flexibility.)

Another important function of the sampled firms was their role as competitors. Fifty per cent of the firms claimed that they were competitors to large firms, as their products/services were the same as, or similar to, those of the larger firms, and thus were competing in the same market. In fact, 40 per cent of the firms direct their goods and services at the same consumers as their larger competitors.

This competitive function has often been quoted in the literature as a stimulant to change through innovation and improvement, such as has often been observed to accompany competition, because of the competitors' desire to retain or expand their share of the market.

Thus, the small firms, such as those in the sample, provide a continuous challenge to the large firms and combines. The small firms can force the large companies to keep on

their toes and can often prevent abuses in terms of pricing and quality. It is in this role, as a check against oligopolistic or monopolistic development among larger firms, that the small firms receive most acclaim.

Without competitive conditions, a firm may grow beyond the point at which total unit cost falls and thus, in such non-competitive situations, an inefficient firm may have the power to keep out competitors, and to sell at higher prices than would obtain under competitive conditions. Furthermore, under such monopolistic (or oligopolistic) situations there is also the possibility that the firm would not introduce new products and processes because of the lack of competitive incentive to do so. However, when a firm faces sufficient competition from small firms with lower costs, there is less possibility for such stagnation to take place, as effective competition will provide the inescapable incentive to improve and lower costs. Therefore, small firms, as exemplified by the firms in the sample, perform many roles which facilitate the development of the larger firms. Their roles here served to make the larger firms more efficient.

B. Capital Mobilisation Function:

Another important function of the sampled firms has been the mobilisation of capital. In 1970, for example, of

the 37 firms which supplied their financial data, their combined fixed assets were almost £1 million, while their total assets were almost £3 million. The total funds employed in establishing the firms amounted to almost £ $\frac{1}{4}$ million. (These figures of course could be multiplied many times for all the small firms in the country). Thus, the small firms have tapped sources of capital which would not be mobilised by any means other than by self-reliant entrepreneurship.

This wealth, probably to a large extent, would never have become as productive capital had it not been for the independent businessmen, as the bulk of the funds have been accumulated from the principals' own saving, gratuities, or borrowings from relatives and friends, (see Table 3-27).

Many of the principals, especially those who have started with limited capital, stressed that they would not have invested their money through other means (because they considered their respective funds as negligible).

One factor which facilitates the mobilisation of capital by the small firms is that small firms generally have a shorter gestation period than larger firms. Hence, capital may be saved by getting into production sooner, with less idleness of costly funds.

Another utilisation of capital by the sampled firms, as mentioned earlier, has been the utilisation of used

equipment and machinery. Virtually all the firms started their business using equipment that was purchased in the used-equipment market. Thus, these small firms have stretched the life expectancy of valuable capital goods, which otherwise would have been wasted.

In common with this use of second-hand equipment was the use of old buildings and premises. Many of the firms in the sample were reported, or observed, to have started in disused buildings which have therefore been given a fresh lease of life. Of course in the initial stages of their development, the use of these old buildings served to perpetuate eye-sores in the environment, but in many cases, at least in the sample, the subsequent improvements and renovations helped to reduce these environmental draw-backs.

C. Employment Function:

Another role performed by the small firms in the sample was their employment-giving function. In 1970, the 50 firms in the direct sample accounted for a total of 380 full-time employees plus many more additional part-time workers. As a significant percentage of these firms were located in areas fairly remote from centres of employment, these people concerned might otherwise have not been gainfully employed. This employment-giving potential is of significance since a given amount of capital invested in a small firm is likely to provide

more employment, at least in the short run, than the same amount invested in a large-scale undertaking. This is a very important matter for consideration for areas of high unemployment and surplus labour.

In the sample, at least 60 per cent of the firms also used part-time employees drawn from the female population in the area. This tapped a useful source of labour which otherwise would probably not have been employed. It also provided an additional source of income for the families in the area.

Furthermore, in at least three areas where the sampled firms were located, the firms were able to provide employment for displaced colliery workers. Since the closure of the coal mines in such areas, there has been a steep rise in the unemployment figures. Thus, when the small firms established themselves in the disused colliery buildings, they provided alternative employment opportunities for those unemployed. The flexibility of the employment pattern in these small firms made the transition of colliery workers into factory employment much easier than it might otherwise have been.

Many of the firms in the sample also played an important part in providing off-farm employment opportunities for those who might otherwise be obliged to leave these areas in search of employment. Because of the seasonal nature of farm employment, many of the firms have adopted the

production policy of dovetailing their operations with the seasonal demands for agricultural labour, In this way, they have been able to bring a more stable income to rural areas.

D. Production of Goods and Services:

Finally, of course, the sampled firms contributed to the national economy by producing goods and services for the consumer. Some of the firms provided new products, or variations or improvement on existing ones, so enlarging the range of consumer choice. Table 3-6B indicates the type of products/services provided by the firms in the sample.

As producers of goods and services, the small firms served the local and national markets, and 60 per cent of them exported, thereby earning foreign exchange for the country.

The small firms also served to preserve the crafts, while meeting specialised needs for such items as were not in mass production for the total market. At least four firms in the sample fulfilled this function, and have been reported to have enjoyed an unprecedented demand for their crafts by consumers from the upper echelon of society.

Another role, played by some of the firms in the sample pertained to the needs of the agricultural industry in the areas. These firms specialised in the construction

of farm buildings and thus fulfilled the needs of the local farmers.

Thus, economically, the 50 firms in the direct sample and the 54 in the indirect sample contribute towards the well-being of the local economy, as well as to the total economy in terms of enhancing the country's gross national-product and national income. In terms of turnover, the firms which supplied financial data in 1970 produced £5.6 m worth of sales.

The above represent contributions which would not only be generating considerable benefits, but it was also indispensable to the continued vitality of the national economy.

Decline and attrition of products and individual firms is an inevitable pattern in a growing economy. There must therefore be, within the system, a self-generating process to ensure renewal and replacement, as well as to provide additional net increase for guaranteeing dynamism, progress and expansion. In terms of firms and industries as a whole, such renewal and replacement processes are partly fulfilled by the small firms.

A. Product Development: Innovative role.

The firms in the sample have been found to have

II Development Function:

The development function of the small firms as revealed by the firms in the sample, can be discussed in terms of:

- A) product development, i.e. innovation
- B) skill or manpower development
- C) management development
- D) entrepreneurial development
- E) business development

The above represent contributions which would not only be generating considerable benefits, but it was also indispensable to the continued vitality of the national economy.

Decline and attrition of products and individual firms is an inevitable pattern in a growing economy. There must therefore be, within the system, a self-generating process to ensure renewal and replacement, as well as to provide additional net increase for guaranteeing dynamism, progress and expansion. In terms of firms and industries as a whole, such renewal and replacement processes are partly fulfilled by the small firms.

A. Product Development: Innovative role.

The firms in the sample have been found to have

played a part in evolving products and processes. Table 5-~~30~~²⁵ shows the number of patents and registered designs held by the firms in the direct sample - an index of innovativeness of these firms. However, this figure does not include scores of other improvements, variations, adaptations and improvisations, either in processes or products, which were not or could not be patented.

The range of products which have been patented included special flail mowers, tree-stumping (pulling) machines, reversible ploughs, material-handling equipment and several farm implements. In each of these innovations, the products have become the basis of the firms' growth and success.

In at least two cases, the flail mowers and reversible ploughs, the invention and innovation of the products preceded the establishment of the firms, and therefore, they facilitated and, in effect, sparked off the establishment of these firms.

In another case, a group of unpatented innovations by a single firm (Firm AE) involved three separate pieces of equipment for use by the railway in laying lines. This equipment has improved the capacity of the railway workforce. These products have been based on existing equipment which had only limited application and manoeuvrability. At the end of the field-work period, it was learnt that the latest of the firm's innovations had proved so useful that the prototype has been hired by the British Railway while they awaited the completion of an order.

These new products have definitely not only enriched the economy with additional varieties of goods but also, in many cases, contributed significantly to the country's gross national products and national income. In many cases, they have earned vital foreign exchange through export orders, and saved foreign exchange by import substitution. For example, in the case of the railway equipment of Firm AE, the products have the potential for replacing most of the present equipment now being used and purchased from continental Europe. Thus, the small firms play a role in making import substitution possible.

Apart from new products, some firms have also developed various patented and non-patented improvements and processes. One firm has developed a series of processes in its vinyl manufacturing, while another firm has developed a well-guarded secret technique of printing aluminium-based circuits. Yet another firm has patented a technique for cutting polymer products effectively.

The above new processes, and others like them, have definitely facilitated the production processes of these firms and, in cases where these processes were adopted and adapted by other firms, they have had the effect of enhancing labour efficiency elsewhere.

In one sense, such firms as those producing the reversible plough and the railway equipment had not only met a market need but had actually anticipated it. Each

of these firms has proven that new concepts or techniques can be translated into profit-making ventures, without major capital investment. They gradually worked and reworked on an innovation and finally developed a special marketable product which, in the laboratory of a larger firm, might have required a large expenditure.

Thus, the rural small-firms in the study have provided an important source of new ideas and inventions. They are important in pioneering innovation, and proving its worth on a small scale, before actual large-scale production is undertaken. Where successful innovation has encouraged other business to adopt and adapt, it has contributed towards preventing old-established industries from ossifying.

Generally, small businesses, such as those in the sample, become a prolific source of ideas, many of which would not arise or would prove abortive in the absence of a favourable environment. Every entrepreneur is in some ways an innovator. His product must often be different in design or value to compete in the market. He will differ in his method of production, find new techniques of production or of selling or of organisation, put unorthodox philosophies of management into operation, and test them by results. When he has grown large enough for his bigger rivals to fear his success, they will study his methods or seek other means of improving their performance, driving him to still further efforts and so vitalising the

industry. The dynamic small firms, as exemplified by many of the 104 firms in the two samples, have indeed stimulated the larger firms into self-improvement. One firm won the gold medal of the Export Council for its success in the export market with its quite unique machines used for deburring metals and cutting polymer materials. Yet another firm has even beaten other rivals, including giants such as Massey Ferguson and International Harvesters, at the 1970 Royal Show for the best new agricultural equipment exhibited. Although none of the firms in the direct sample, and only one in the indirect sample, has won the Queen's Award for Industry for innovation, yet the list of winners have included many small firms.

B. Manpower Development:

Another important function of the rural small firms, as evidenced in the study, was in developing the skills of workers, as well as reorientating the traditional skills into uses consistent with modern production methods.

By virtue of their close-knit organisation and flexibility, the sampled firms have been found to have accepted semi- or unskilled workers and trained them on the job directly or with the aid of external instruction. Thus, workers have been given the opportunity and time to acquire skills which otherwise would have been undeveloped. In addition, 56 per cent of the sampled firms have also

taken in apprentices, again providing an avenue of training for prospective skilled workers and, possibly entrepreneurs. As a whole, therefore, these firms supplement the training efforts of other, especially, larger firms.

Although there were no statistics available, it is not unreasonable to expect that many workers having acquired their skills in small firms, have left to seek better employment elsewhere, including in larger firms. In fact, it was the fear of losing trained personnel to larger rivals that deterred the smaller firms from taking more apprentices.

As indicated earlier, the rural small-firms located in former collieries have played a vital role in reorientating the skills of displaced colliery labour. Likewise, many of the traditional craftsmen in these areas have been able to earn substantial income through being gainfully employed in small firms, where their skills were either used directly or reorientated to new fields.

As far as apprentices were concerned, it was observed and confirmed by CoSIRA officers that they received a more complete training compared with that of their counterparts in larger firms. In the small workshops or factories they were able to apply what they had learned sooner than they would have done in larger firms.

Thus, one of the most valuable contributions of the small firms has been the opportunities they have afforded

to workers for gaining skills, and a better understanding of various jobs, required by manufacturing and service industries.

C. Management Development:

The small firms in the samples, like their counterparts in the wider economy, have functioned as nurseries for managerial talent. Forty-six per cent of the sample and 54 per cent of the indirect sample, employed personnel at management level: while an additional 36 per cent of both samples employed personnel at sub-managerial or supervisory levels. These were men who, while being given an opportunity to share in the management of the firms, were in the position to acquire a wide variety of managerial skills. Unlike their counterparts in the larger firms, who were generally specialised, managers and sub-managerial personnel in the smaller firms have, like their bosses, often to wear many hats, and thus have to grapple with many basic problems. Their proximity to the focus of power in the firms, and their involvement in the key problem areas, enables them to learn various facets of practical production, marketing and organisation skills which could prove valuable assets in their later careers as employees at management level, or as entrepreneurs in their own right.

Of the nine management personnel employed by the sampled firms which were interviewed, seven were recruited

from larger firms. Out of these, six of them stressed their preference for the smaller firms as they felt that in them their ability was being utilized fully and, at the same time, they claimed to have experienced a better climate for innovative thinking. Here, only a few executives usually performed the functions which, in the larger firms were divided among a bigger number of personnel. They concurred in the view that the small-business manager received broader experience in many aspects of the business. Often, they were called upon or forced to devise or improvise ways of overcoming problems which cropped up. One of the managers interviewed had been entrusted with the task of organising stock control and production layout for the new premises being built by his firm. He stressed that "The smaller firm provides a kind of atmosphere in which I am challenged to do my best. Here I am able to generate and, more important, apply new ideas. This was not the case in my former employment where I was expected to follow rather than lead."

Marting (1959:20) observed "The smaller company is often a testing ground for executive talent, as well as for new products and methods, since it necessarily encourages innovation in administrative thinking and capacity. Here, only a few executives usually perform the function that in a larger company is divided among a sizeable executive group. Small-business managers therefore receive broad experience in many aspects of an operation. Where precedent

is not clear or useful, these men frequently are called on to devise imaginative ways of solving management problems.'

D. Entrepreneurial Development:

Economic growth requires more and more men with personal qualities of initiative and leadership, combined with skills in organising and managing. Channels are needed by which suitably talented and motivated individuals can find their way to new and constructive types of economic achievement. Small firms can provide one such channel. Thus they function as a nursery of entrepreneurial talent, as well as managerial talent as discussed earlier.

From this point of view therefore, the firms in the sample have served as the means for shaping the latent talent of entrepreneurship possessed by the principals. Through their business undertakings, they have translated their aspirations, tested them, and some of their ventures have succeeded, while others have at least remained fairly viable propositions.

Without these avenues, the economy would be that much poorer, in terms of additional entrepreneurs. If entrepreneurship talent were to be manifested only in larger enterprises, then the majority of these men might have remained as employees, their talent not exploited, as that level might have been too remote for their reach.

Through starting from a scratch and humble beginnings, many of the firms in the sample have grown in stature and the principals have emerged as capable entrepreneurs, some of whom would continue to graduate into corporate - owners. Firms such as Y, G, and AD each of which started in the principal's garage or a small delapidated shed as a one-man-venture, has now grown into a potentially big business employing over 100 employees. It is this type of growth that makes the small firms one of the best nursery-beds of entrepreneurs.

The firms in the study have no doubt likewise played their part, providing the economy with a fresh crop of entrepreneurs, some of whom may grow to supplement or replace existing entrepreneurs as they lose their vigour.

E. Business Development:

Another developmental role played by the rural small firms in the study, is related to the above-mentioned role of entrepreneurial development. This refers to the development of the business-undertaking itself. The two roles, therefore, can be seen to be synchronic - or twin-processes - the former facilitating the nurturing of the men, viz. the entrepreneurs, while the latter is responsible for nurturing new business endeavours. Thus, the establishment of each of these small firms, representing

the birth of a fresh undertaking, adds to the existing business population.

The population of business units in the economy changes through births, deaths, fission and fusion. It is in this context that the small firms contribute to maintain the vigour of their industries. They serve as media of organic growth, they tend to make good the deficit caused by mergers, liquidation and take-overs. Thus, it can be seen that there is always a process of 'cellular renewal' (from below, to create a net balance of firms, births over deaths). In this way the small firms contribute towards the maintainance of the vitality and dynamism of the economy.

Furthermore as some of the larger and long established firms grow into maturity and decline, new "leaders" will arise eventually from among the ranks of the small newcomers, as represented by those covered in this study. Thus, the growth of these small firms can be viewed both as additional to the leaders of industries as well as the replacements of those that have ceased to function or to be in the leading category. In the sample of the study, at least 11 firms have the potential of such continued growth and to assume a place among the 'biggs' of tomorrow. It is in this context that these small firms personified Demosthene's dictum that 'small opportunities are often the beginning of great enterprises'.

In some instances small firms also pave the way for the beginnings of new industries. The literature contains ample case-histories of such small firms starting in fresh fields which later boomed into separate and multi-million-pound industries: e.g. Xerox. Miller (1963) has surveyed dozens of successful firms which had small beginnings, and some of which have stimulated the development of fresh frontiers of industrial endeavours, e.g. Dexion Ltd. for slotted angles.

Miller also quoted cases of small firms innovating within and reactivating backward industries, and of others that penetrated established industries - all of which have served to enrich the economy of the country.

Miller also noted that many of the firms he studied were small and independent. Indeed one of the basic characteristics of the sampled firms was their autonomy in relation to the industrial system: the firms' orientation and development were largely dependent upon the principals' own personal ideas and targets.

Of the 50 firms tabulated, 60 per cent of the principals have stated 'need for independence' as the main motive, or one of their motives, for starting the business. Various statements have been recorded to emphasize this point:

A middle-aged principal who has been running the business ever since he was 30 said, 'I would never dream of working for someone else, especially those venal and facious owners. I'd work only for myself.'

III Psychological Function:

By their very nature, especially in terms of size and methods of operation, the smallness and informality of the rural small-firms permit it to fulfil several psychological needs of the owners, the employees, and the customers. These are functions which in large measures are not able to be met by larger firms.

A. Need for Independence:

Table 3-9 shows that one of the most often quoted reasons for starting business was to satisfy a need for independence, i.e. the principals saw that, through owning and running their own business undertakings, they could assert their freedom and manifest their independence. Indeed one of the basic characteristics of the sampled firms was their autonomous position in the industrial spectrum: the firms' orientation and development were largely dependent upon the principals' own personal ideas and targets.

Of the 50 firms tabulated, 68 per cent of the principals have stated 'need for independence' as the main motive, or one of their motives, for starting the business. Various statements have been recorded to emphasise this point:

A middle-aged principal who has been running the business ever since he was 30 said, 'I would never dream of working for someone else, especially those remote and faceless owners. You would only be a number to them'.

Another principal, who was formally a senior executive in a large company, stressed, 'Here I set the tune, I can unwind when I want to, although I have never really done that yes, I work harder and longer hours but not because I am directed to, but because I want to, and I find satisfaction

Another owner-manager, whose firm has now grown to a size employing more than 100 said, 'I have always been a rebel, I suppose because I grew up without knowing who my father was I could never accept anybody to dominate me. After completing my education, I tried working as a technician but the restriction irked me and soon I was on my own in that little shed across the road.'

This need of independence seemed to have been even more potent among war veterans, and those who have served in the uniformed services. Of the 34 principals in the direct sample who stated 'independence needs' as their motive, 59 per cent of them had served in the armed forces for at least 4 years.

It is therefore postulated that the regimented routine, with its strict ~~discipline~~^{discipline} and clear-cut hierarchical life, seemed to have made these men crave for non-regimented careers upon demobilisation. For those in the rank-and-file, therefore, to be one's own boss, through ownership of a small firm, provided the escape from the regulated life, and perhaps also a means to reassert dominance after being subordinated for so long. On the other hand, for the officers, the small firm served not only as an escape from the regimented bondage, but possibly also helped to perpetuate their dominant role.

These motives were substantiated by the responses of

the principals in the study. Several 'rank-and-file', principals have directly or indirectly aired their detestation of such patterned military life and the unquestioned obeying of commands.

One respondent who had served in the Middle East during the Second World War said, 'Seven years in the R.A.F. being ordered about and having to take all the orders was enough. I want a career when I can 'look down' instead of 'up'. With my lack of qualifications I know employment will only perpetuate the subordinated role. Even when I was fighting in Egypt I had already thought of business ownership

An ex-Sergeant Major who had served in the East and now was running his own business confessed 'after being used to the life of giving orders I would hate to be on the receiving end instead it was proven, when I worked as a salesman after six months I had had enough, and so I took the big decision.'

This need for independence provided the principals of these firms with a wide range of highly-personal gratification through working for themselves and not for somebody else. Responses recorded during interviews have included such intangible rewards as the satisfaction of being one's own boss, the gratification of controlling one's staff, direct dealing with customers and the opportunity to develop and implement one's own ideas. Some also emphasised the satisfaction of facing and overcoming personal challenge that almost always accompanies running one's own enterprise, and many demonstrated an almost egotistical sense of personal achievement. To most of these principals, the pleasure of solving problems, and these were almost daily occurrences, were tangible rewards that far outweighed the 'sleepless nights' and the 'heart-aches'.

Thus, the satisfaction derived from running one's own business seemed to be a much more powerful motivator than money, or than the possibility of large financial gains. Therefore, the small firms serve a valuable function for the individual who needs an outlet to his desire for independence or alternatively, his unwillingness to be a subordinate. They also provided an outlet for those who have, in MacLeland's terms, high achievement motivation.

Collins et al (1966) have conducted a series of psychological tests on their sample of entrepreneurs and have, among other things, confirmed the strong urge to escape from dominance to be one of the basic traits in the entrepreneurial mode. They indicated that the 'enterprising man' 'Typically cannot accept without reservation the leadership of others. He cannot live within the framework of occupational behaviour set by others. He must in the end seek another way. It is this seeking of another way that in the most fundamental sense makes an entrepreneur of him.' (67)

B. Self-employment:

Another function of the small firms, and related to the 'need for independence' as quoted by several principals in the study, was the provision of scope for self-employment. One factor that kept recurring in the respondents' replies was that, in self-employment, they were free to travel in

directions of their own choosing and at their own pace. They were therefore never under constant pressure from superiors to achieve specified goals. Yet they could move ahead more rapidly, if they wanted to. Indeed, some men are happier, worry less and achieve more with less emotional and mental strain than in subordinate employment. As his own boss, a man can exercise all his faculties and abilities, thus avoiding the irritating and repressive effects of enforced conformity in becoming an 'organisation man'. This feeling is typified by the response of the owner-manager of a metal-working firm:

"In being my own boss, I am the driver, I can move at the speed I choose my conscience is always clear....."

At least three respondents mentioned that they saw in self-employment, through business ownership, a sure way of ensuring 'gainful employment' after reaching retirement age. Indeed, it is easier, through self-employment, for men who want to continue in useful productive employment past the usual compulsory retirement age, to do so. One respondent who started his business at the rather late age of 50 said:

"I have seen some of my colleagues going up the wall after retirement, suddenly having so much time and having nothing much to do. No sir, I don't want to be like them. That's why I have started this business even before it happens...."

In several cases within the sample, the principals found through small business ownership an effective way of remaining in their home town or village, either from preference or having to do so because of family or other

obligations. Because most of the places were small and non-industrialised, opportunities to secure well-paid jobs in rural settings were limited. Therefore, self-employment through small business undertakings has enabled them to get the best of both worlds.

Kelley, et al (1968) has also referred to small-business as offering the opportunities for self-employment for those who were outside the employable standards set by many concerns, especially big businesses - e.g., men with handicaps, widows, housewives etc. Kaplan (1948) also concurred when he stated that small business had proved a satisfying alternative to people who did not find employment opportunities with established companies, because of peculiarities of personality, education and background.

Finally the present study has also shown that small-firms ownership has made it possible for some to turn a hobby into a lucrative livelihood. Three respondents have stressed this: one, whose hobby was 'pottering with plastics', has started a firm making plastic lamp shades. His business in fact developed from a part-time venture, where an increasing number of customers were taking up the products of his hobby-activities.

Therefore, small-business ownership has undoubtedly played a significant part to meet the needs of men with particular inclinations.

C. Workers' Psychological Needs:

In these days of big corporations and giant enterprises, the small firms provide a haven for workers who detest the formality and impersonality of the working environment of the large establishments. Several workers interviewed stressed that in the small firms they were known by their first names by other workers, by the management, and also by the owner or owners. This was especially so in the rural small firms, where the working conditions were reported to be very much of a family-type atmosphere, the relationships existing therein resembling Botts (1958) closed-knit network.

It is not surprising that several studies¹ have quoted that the turnover rate and absenteeism rates of employees were highest in the larger firms. Of the 50 firms in the sample, only two firms complained that there was more than 20 per cent. of their employees leaving in any one year. Another index of labour contentment in the small firms was reflected in the high percentage of the 'original employees' still working for the firms. Of the 12 firms where such data were obtained, 10 indicated that, on average, not less than 75 per cent of their employees recruited in the first two years of the firms' operation were still serving the firms.

The sampled firms, being in the rural areas, have further served workers' needs in that quite a number of workers claimed that they would not work in firms other

than those where they were among familiar faces, and where informal social sanction existed as a means of maintaining discipline. To them, firms in the urban areas, especially if larger, would not be conducive to a personalised type of working environment. Impersonality might be a potential source of deprivation, and an impersonal control that would inhibit identification with the enterprise.

Therefore, to many workers, employment in a small firm, with its family atmosphere, meets their needs pertaining to social relationships.

D. Psychological Function for Customers:

As far as the customers are concerned, it is assumed that the personalised service of the rural small-firms provides a pleasant alternative to the almost cold impersonalised relationship they have to encounter in dealing with larger firms. In the sample, 86 per cent of the firms have their owner-managers personally handling customer-relations and sales. Customers having such direct access to the centre of power in the firm are likely to have a sense of satisfaction, as well as of importance, by having their needs serviced by the head of the firm. Furthermore, this direct contact with the actual decision-makers provided the opportunities for requesting any special personal consideration or variation of orders. Against this, in the larger firm, more often than not

customers would be treated in a standardised formal manner, and any request for special treatment or modification of the item or service offered would have to be referred 'higher up' - often to some remote person not known to the customer.

Throughout the study, principals were proud to narrate cases where they had been willing and able to meet their customers' requested specifications. One principal, making components for the motor industry, quoted a case:

'I received the call on Friday afternoon for a big order but with a short delivery date. I accepted and worked through the weekend and by Monday morning the equipment was delivered.'

Another principal, making special valves, quoted an interrupted vacation, 'My partner received an order from one of our customers for a one-off item. He was obliged to accept although the production necessitated my presence. John rang me up and I cut short my vacation we worked through the weekend and the order was completed one day ahead of the target date I then resumed my vacation.'

Such cordiality and flexibility as exemplified by the above firms were not only unique to the small businesses, but they represented their strength in meeting competition from larger rivals. Golby and Johns (1972), in reference to these qualities, concluded that small business certainly saw itself as being of special benefit to the customer because there was a feeling of emotional involvement, a determination to find a way round difficulties, and a pride in performance which, it was felt, larger firms with their rigidity and

bureaucratization could not equal. The customers, therefore, by virtue of this emotional involvement derived not only a sense of importance, but also a satisfaction from the service provided.

These sociological feelings have not only contributed towards the growth of people involved in the firms, but also to the communities in which they were located.

(ii) Social Mobility:

First and foremost the principals have, through the firm and to varying degrees, been able to acquire status, prestige and, to a lesser extent, power, which in Weberian sociology are three of the constituents that determine one's standing in society. The acquisition of these elements, through business ownership, have no doubt facilitated the principal's movement in the direction of his desired social standing within the community.

Although only six of the 50 respondents in the sample and 13 of the 54 in the indirect sample actually mentioned that prestige-seeking was one of their motives for entering business, yet the writer was convinced that many more have looked upon business ownership as a means of social advancement.

The principals' culture stressed the prestige value of business ownership most articulately. It is therefore not surprising to find that many people crave for business simply to show their neighbours that they are getting

IV Sociological Functions:

The rural small-firms in the sample have also revealed that they fulfilled certain sociological functions as well as economic and psychological roles. These sociological functions have not only contributed towards the groups of people involved in the firms, but also to the communities in which they were located.

A. Social Mobility:

First and foremost the principals have, through the firms and to varying degrees, been able to acquire status, prestige and, to a lesser extent, power, which in Weberian reckoning are three of the constituents that determine one's standing in society. The acquisition of these elements, through business ownership, have no doubt facilitated the principal's movement in the direction of his desired social standing within the community.

Although only six of the 50 respondents in the sample, and 13 of the 54 in the indirect sample, actually mentioned that prestige-seeking was one of their motives for entering business, yet the writer was convinced that many more have looked upon business ownership as a means of social advancement.

The principals' culture stresses the prestige value of business ownership most articulately. It is therefore not surprising to find that many people crave for business success to show their neighbours that they are getting

ahead in the world. It is perhaps not too far-fetched to suggest that many of the principals have acquired external symbols in terms of material possessions as a manifestation of this desire for prestige and status in society.

(Although the writer did not take any actual census of personal vehicles of the principals, yet he recalls seeing cars often associated as status symbols being owned by these owner-managers e.g. Mercedes and Jaguar XJ12's)

One of the accrued benefits of ownership in business, apart from personal gratification, is the change in the 'terms of reference' of society with respect to the principals involved. If, hitherto, they were employees or executives with no stake in the ownership of their firms, ownership of a small business puts them into the proprietorial group with its attendant implied independence and prestige.

For those who have consciously striven for business ownership, as a channel to prestige, motivation could well be sparked because of their economic backgrounds. Indeed, 64 per cent of the principals can be classified as coming from average to deprived homes and, therefore, having low initial ascribed status. It was the combination of this background, with the high regard they had for business ownership as a means of redressing the situation, that had prompted some, if not many, of them to seek this as the principal avenue for their personal and family advancement.

In a society where career advancement is often dependent upon professional skills and educational qualifications, business ownership through the small firms has been resorted to as the avenue for advancement by those with limited education and hence restricted chances of career advancement. In the two samples, 60 per cent of the principals received formal education not higher than secondary level. Generally, with this non-professional educational qualification, even if supported by apprenticeship training, the chances of their attaining high positions in employment would be slim. Studies of big-business leaders and of executives (Collins et al) have shown that higher education was increasingly important for entrance into such positions. Chinoy (1955) in a study of automobile workers, for example, found that 'most of the talk of leaving dealt with the traditional avenues of success, some kind of small business venture. Of the 48 who had thought of quitting, 31 suggested "business of my own" as their goal'.

Likewise, it was plausible to assume that principals, with a low or average education, decided to quit their employment in search of success through small-business ownership. Collins, et al, found in their study that many of the men became entrepreneurs because they could not find for themselves a future in the large bureaucracies, or in the professions. In fact, several of the respondents in the present study who did not attend college have implied that their inability to meet the educational requirements

imposed by the large organisations had inevitably resulted in the regular routes to advancement being blocked to them in their early jobs. Therefore, because of lack of formal education, many of them have elected to set out on their own, and to create a business in which lack of formal education would not be a direct handicap.

In the tabulation (Table 3-9) showing motives for starting the business, 23 per cent of the combined samples indicated frustration as one of the causes. Upon closer analysis, most of this frustration was found to have been caused by their inability to obtain an opportunity for such advancement as they thought they deserved. Most of the respondents involved had limited education, and this could well have been the reason why they had been passed over for other men. One respondent, the owner-manager of an agricultural machinery firm, said "Despite my sweating it out, the firm had continuously brought in men from outside - they were all better educated than I am..... the writing was on the wall ... "

In another case, the frustration was allegedly caused by the principal's previous perpetually-deprived circumstances. Thus his motivation to make the break was seen to be an escape from poverty:

"I was a 'skivvy' and had to sweat it out and scrape for my livelihood. I hated poverty but the normal route was not good, as I had only very basic education - couldn't afford it you know - but I had guts and determination, and I thought if I wanted to sit behind the mahogany table I had to strike it on my own."

This principal, who now heads a construction firm, has therefore not only overcome his poverty, but has also attained this social goal.

Taken as a whole, the vigorous development of the small-firm sector, as reflected by the firms in both samples of this study, has provided an important channel for social mobility. We have seen that the exceptionally-ambitious artisan or factory worker has been able to elevate himself, career- and social-wise. The fact that it is possible for a man to try, and to have a reasonable chance of succeeding, is a significant factor in creating an open economy and an open society, where people see that there are many avenues to advancement.

The effect of the upward mobility of the principals in the sample, when scaled upwards throughout the economy, has helped contribute to the reinforcement of the middle class, by continually generating fresh groups of entrepreneurs. Such mobility, through small-business ownership, must have contributed significantly to the development of the middle class in the early industrialisation of this country.

In another respect, though limited in the sample, the small firms also helped in producing local leaders. Among the 50 firms in the direct sample, nine of them served in the Small Industries Committees of their counties. They have offered their expertise and knowledge in the guidance of the local CoSIRA office and, indirectly, have

assisted the agency's headquarters in shaping and implementing policies affecting small firms in the rural areas. Through these area committees, the principal members have also helped present the case of the small-firm sector. CoSIRA Head Office has indicated that several of the proposals or views put forward by members who were small business owners have been accepted or adapted as a basis of some of the policies and administrative practices of the agency.

In the local community too, several of the principals have become leaders. Although it was observed that most of the small-businessmen worked long hours, and in some cases were too individualistic, it was also noted that a few had been elected to various local committees.

B. Family Role:

The study has also shown that, in firms where several members of the family worked together, the latter can operate on a very functional basis. In cases where both the husband and the wife are working to manage the firm, it served to strengthen the family solidarity, and especially marriage partnership. In Firm E, for example, the wife not only was the pillar of the business but since joining she had qualified as a skilled craftsman herself, and her participation in the business has overcome the hitherto separate lives that the two were leading. In the initial years, when the husband was working alone, he was

more married to the business than to his wife but, since she became involved, their domestic life had improved.

Small-business ownership has also been shown, in other cases in the sample, to present a hazard to family life, especially where the wife and children were not involved in any way in the business. There were cases where the marriage ended in divorce because the stress and strains of managing the business in the initial years wrecked the home.

Family-owned businesses, however, have provided a family link through succession and inheritance. As was observed, nine firms in the sample were owned and managed by the children of the founders. In this way, these family businesses had served to bring the children back to the family undertakings, instead of earning their living detached from family ties. Such return to the family enterprises no doubt had the effect of reinforcing the bond between family members.

In the present days, where inter-generational relationships are observed to be weakening, the presence of these family firms can serve as a reassuring symbol of close-knit family relationships. At least two principals have thereby managed to fill the void which had occurred before the establishment of the firms, when the family members were individual bread-winners. The sociological and psychological effects of such relationship must be substantial.

Besides the benefits to the owners, it is also anticipated that there would be some social effects of local employment opportunities, through these small firms, on the nuclear and extended families of employees in the rural areas, where employment in agriculture and mining is shrinking. In one respect, these employment opportunities can serve to check, or at least slow down, the disintegration of these families through the need of their members, otherwise, to migrate to urban centres in search of employment.

Likewise, there would also be some social effects of the employment of women, including young mothers, in such firms. Firstly, through such employment, the horizons of these rural women would undoubtedly be widened, with its attendant consequences. Secondly, their wages and other remunerations would enhance the family incomes, possibly enabling them to raise their standard of living. And finally, the employment of young mothers would be expected to have definite drawbacks on the socialisation process of their children.

C. Re-employment Function:

Three of the principals in the sample started the business after being made redundant in their previous employment. At least two of them stressed that their world literally ended when their employers dispensed with their services. As one remarked:

"Not only had I lost a job, but I had lost my whole self esteem - I did not know how to face my wife and children. The fact that the family had to live on the dole money, supplemented by income brought in by the wife who was forced to get employment, really drove me crazy."

This respondent started business with two others who shared a similar fate with him. Using their combined savings and redundancy payments they set up an electronic components firm. The initial success of the venture not only has restored his confidence but it has brought back his self-esteem and, in a way, reestablished the family status quo.

Small-business ownership thus provides an avenue for redundant employees to regain their self-respect and to continue to be economically useful when their careers prematurely terminate. The importance of obtaining this alternative means of livelihood especially where the man involved has occupied an executive position in employment, and of maintaining one's self-esteem through the acquisition or starting up of a small-business, will be self-evident.

V Political Functions:

In terms of political values, the presence of small firms such as those covered in the study, serves the function of maintaining free enterprise and competitive environment.

As mentioned earlier, the small-firms contribute to the development of the middle class, by producing groups of entrepreneur-managers who not only acquire a degree of economic independence but manifest initiative and self-reliance, coupled with the skills to get things done. This could be a significant element in the reinforcement of the underpinnings of political democracy.

Virtually all the firms in the sample were locally-owned. This universal synonymity of indigenous ownership with small enterprises contrasts heavily with the wide spread of ownership which is prevalent in large operations. Small, firms like those in the samples, are means for ensuring local and regional participation in, and influence on, the national economy. (This is especially important in developing countries such as Malaysia.)

Furthermore, the small-firm sector tends to guarantee private enterprise in the economy. Among the sampled firms were several firms which were already well on their way to being regarded as medium-sized, with the potential for becoming even larger. This contributes to the making of a truly competitive, and less monopoly- or oligopoly-dominated private sector. Such development definitely

facilitates the thwarting, or counteraction, of undue concentrations of power - whether the latter is in hands of large concerns, of a few dominant families, or of Government itself. Furthermore, it also somewhat helps to reduce the burden on the Government of having to regulate and watch the private sector in detail to keep it from exploiting monopolistic advantages. The competition of efficient small units helps to make the manufacturing sector self-policing, thereby limiting the extent to which a few large firms could with impunity charge higher prices than were economically necessary, or have little or no stimulation to become efficient in production, selling, or distribution of their products.

Therefore, this regulatory effect of the active small firms, perhaps serves as insurance for maintaining political democracy. Osborn has stressed this when he said, "Small business is more important politically than its social and economic significance would suggest".

VI General Function:

The two samples covered in the study, comprised 104 firms located in rural areas of the country. Their presence there, and that of those like them, can be regarded as providing towards a balanced growth for the country. In consequence, rural industrialisation has its place alongside urban industrial development; thereby achieving a greater measure of geographical decentralisation and dispersal of industries.

Related to this important role is the extremely vital part rural small firms play in checking urban drift and rural depopulation. This twin-process has occurred in the country-side ever since the mechanisation of agriculture started to reduce manpower needs. One of the key roles of CoSIRA has consequently been to facilitate the development of industrial activities in the rural areas, in order to provide much-needed employment for these regions.

Besides checking urban drift, of course, these rural small firms bring in additional prosperity to the areas they serve, by increasing the purchasing power of the local communities.

Some of the sampled firms also served the local community by providing essential services such as maintenance of agricultural implements, equipment and buildings. Without such firms operating within easy access of the agricultural sector, it would experience problems in obtaining these services from urban centres.

CHAPTER FIVE

Chapter Notes:

1. See discussion under "Structural Weaknesses of the Rural Small Firms" in Chapter III.

the 40 firms whose financial data was available is indicated by their ranking positions in Table 2-2. As mentioned earlier, the ranking of each firm was determined in terms of its growth rate and profitability. Thus a high ranking firm in the table implies, on average, that it scored well in terms of growth attainment and also achieved high profitability.

A. Growth:

Table 2-2 includes the positions of the 40 firms in terms of growth ascertained by the three growth parameters: sales turnover, net profit before tax and net assets. Thus, it was found that the firms which had healthy growth rate in sales turnover were generally those firms which did equally well in terms of net-profit increases; suggesting that an increase in sales generally enhanced the magnitude of the profits of these firms. This general relationship between the two parameters is amply supported by the high correlation between rankings of firms ascertained by the two respective parameters: $r = 0.55$ with $p < 0.01$.

To finance their growth of turnover and, as it showed, to enable them to achieve higher profit figures, the firms had to increase their assets. The high correlation between the net assets ranking, and turnover ranking,

CHAPTER FIVE

THE DEVELOPMENT AND PERFORMANCE OF THE RURAL SMALL FIRMS.

I The Overall Performance:

The relative overall performance of the 40 firms whose financial data was available is indicated by their ranking positions in Table 2-2. As mentioned earlier, the ranking of each firm was determined in terms of its growth rate and profitability. Thus a high ranking firm in the table implies, on average, that it scored well in terms of growth attainment and also achieved high profitability.

A Growth:

Table 2-2 includes the positions of the 40 firms in terms of growth ascertained by the three growth parameters: sales turnover, net profit before tax and net assets. Thus, it was found that the firms which had healthy growth rate in sales turnover were generally those firms which did equally well in terms of net-profit increases; suggesting that an increase in sales generally enhanced the magnitude of the profits of these firms. This general relationship between the two parameters is amply supported by the high correlation between rankings of firms ascertained by the two respective parameters: $r = 0.65$ with $p = < 0.01$.

To finance their growth of turnover and, as it showed, to enable them to achieve higher profit figures, the firms had to increase their assets. The high correlation between the net assets ranking, and turnover ranking,

($r = 0.69$) as well as between net assets ranking and turnover ranking ($r = 0.56$), showed these corresponding increases.

B Profitability:

Profitability is the ratio relating profits to capital. Thus profitability figures indicate the extent to which sales revenue exceeded costs in relation to the capital employed. Table 2-2 also shows the achievement of each of the firms relative to one another in terms of profitability, which was ascertained in terms of the following key ratios:

1. Return on net assets,
2. Return on total assets, and
3. Profit margin, i.e. profit to sales turnover.

In the tabulation, a high-ranking firm implies that, on average, it scored well in terms of these three measurements. Thus, firms which had good returns on net assets also had similar standings in terms of total assets and in terms of their profits in relation to sales turnover.

Another feature observed pertaining to profitability achievement of the firms was their degree of variability. Tables 5-1A-C show the breakdown of the profitability rates of the sampled firms, in terms of the three ratios above. For example, in respect of return on net assets, 30 per cent of the sampled firms had less than 40 per cent rating, while 35 per cent of them achieved a rating in excess of 80 per cent.

TABLE 5-1A

BREAK-DOWN OF FIRMS IN TERMS
OF THEIR PROFITABILITY RATES

Return on Total Assets:

Ratio (Percent)	No.	%
Losses	3	7.5
0 - 20 per cent	16	40.0
21 - 40 per cent	8	20.0
41 - 60 per cent	6	15.0
61 - 80 per cent	3	7.5
81 - 100 per cent	3	7.5
n.a.	1	2.5
Total	40	100.0

TABLE 5-1B

BREAKDOWN OF FIRMS IN TERMS
OF THEIR PROFITABILITY RATES

Return on Net Assets:

Per Cent (Ratio)	No.	%
Losses	4	10.0
0-20 per cent	2	5.0
21-40 per cent	6	15.0
41-60 per cent	6	15.0
61-80 per cent	5	12.5
81-100 per cent	6	15.0
Over 100	8	20.0
n.a.	3	7.5
Total	40	100.0

TABLE 5-1C

BREAKDOWN OF FIRMS IN TERMS
OF THEIR PROFITABILITY RATES

Profit Margin - i.e. Profit to Sales

Per Cent	No.	%
Losses	3	7.5
0 - 10 per cent	10	25.0
11 - 20 per cent	8	20.0
21 - 30 per cent	9	22.5
31 - 40 per cent	5	12.5
n.a.	5	12.5
Total	40	100.0

With respect to the ratio of profit to sales turnover, 35 per cent of the firms had a profitability ratio exceeding 20 per cent.

C Growth, Profitability and Size:

Table 5-2 shows the size distribution of the sampled firms in the three categories of performance. The first apparent trend discernible in the tabulation is that only one firm in the upper quartile had more than 20 employees. This pattern is also revealed through the analysis of the percentage-distribution of the firms in the smallest size-bands (0 - 10): in this sub-sample, eight out of 14 (57.1 per cent) were in the upper quartile while only 14.3 per cent were in the lower quartile. Therefore, these figures seem to suggest that the smaller small firms in the sample tended to perform better than those in the larger size-bands. In fact this trend was vindicated by the statistical analysis results which yielded a correlation between size (ascending order) and performance of $r = 0.55$ and $p = < 0.01$.

Statistical analysis also revealed that there was a positive relationship between size of the firm and both growth and profitability: since for
size and growth : $r = 0.39$ and $p = 0.01-0.05$,
size and profitability : $r = 0.51$ and $p = < 0.01$.

However, the above trends were reversed in the data of the indirect sample: of 17 firms in the smallest size-band

TABLE 5-2
Size Distribution of Firms

Number of Employees	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0 - 10	8	57.1	4	28.6	2	14.3	14	100	4	23.5	13	76.5	17	100
11 - 20	1	8.3	8	66.7	3	25.0	12	100	5	45.5	6	54.5	11	100
21 - 30	0	0	5	71.4	2	28.6	7	100	7	63.6	4	36.4	11	100
31 - 40	1	50.0	0	0	1	50.0	2	100	4	66.7	2	33.3	6	100
41 - 50	0	0	0	0	1	100	1	100	2	100	0	0	2	100
Over 50	0	0	3	75.0	1	25.0	4	100	5	11.4	2	28.6	7	100

Correlation Data: (Direct Sample)

Firms Ranked in ascending order of size
(smallest numbers first)

Overall $r = 0.55$ $p = < 0.01$
 Top - vs - bottom $r = 0.50$ $p = 0.02 - 0.05$

(0 - 10), 76.5 per cent were in the 'least successful' category as against 23.5 per cent in the 'most successful' category. Tetrachoric correlation analysis also confirmed this association between size and low performance ranking, ($r_t = 0.69$).

This contradiction in results between the two samples of the study, in effect reflects similar divergences in the findings of previous empirical studies of the relationship between profitability or growth, and size. The findings of these earlier researches pertaining to profitability and size, are summarised in Appendix VII. Hart and Mellors (1969) in stressing these contradictions attributed them to the differing samples, population, environment and, especially, the criteria used both for ascertaining size of firms and profitability rates.

In the present study, for example, the analysis of the relationship between performance and size was confined to comparison of firms within a limited size-range, this being 3 - 130 employees - the majority of the firms having less than 50 employees. On the other hand, many of the earlier studies had bigger size ranges, e.g. Lydall (1959), his range was 10 - 499 employees; while other studies compared firms in different size classes, i.e. small, medium and large. Any inference derived from these specific findings of the present study should be treated with caution.

II Factors Affecting the Development and Performance of the Firms:

In this section, the results of the investigation pertaining to the variables hypothesised to be related to the performance of the sampled firms are reported. These results were based on both tabulation and statistical analyses. In the tabulation analysis, various attributes, characteristics and background details of the principals and the firms are analysed and, for each factor or sub-sample, the performance distribution with respect to the various groupings (e.g. in the case of the direct sample, upper-quartile, median and lower-quartile ranking: in the case of the indirect sample, 'most successful' and 'least successful' classification or grouping), is ascertained for any significant pattern. The tables included are:

Tables 5-3 to 5-16: these refer to factors pertaining to the attributes of the principals,

Tables 5-17 to 5-25: these refer to factors pertaining to the characteristics of the firms,

Tables 5-26 to 5-33: these refer to factors involving the management practices of the firms, and

Tables 5-34 to 5-36: which refer to the environmental factors of the firms.

In general, in the following comments upon findings, reference will only be made to those matters of significance and relevance within the context of the present study. It will be noted that, in a number of cases, the sub-samples

are too small to permit of inference or statistical significance. For the sake of brevity, these findings will only be commented upon below where this is merited, but they are included in the tables since they may prove of interest to other researchers.

A Variables Pertaining to the Principals of the Firms:

Several analyses of attributes and traits of the principals indicated some relationship between them and the pattern and level of attainment of the firms: the degree, however, varied from only a weak link to strong association.

1. The Age of the Principals:

Table 5-3 shows, for both samples, the analysis of performance of the firms, by age-bands of the principals at the start of their ownership career in the firms. On the other hand, Table 5-4 gives a similar analysis by age-bands of the principals at the time of research. It is evident from the tabulation that a number of the sub-samples are too small to yield any findings of statistical significance. However, for the relatively larger sub-samples, certain indications of performance distribution are discernible. Statistical analysis was undertaken to ascertain these, and the data obtained is included at the foot of the respective tables. Based on this data the following inferences can be made:

- a) In terms of the age-bands of the principals at the start of business no significant correlation with

TABLE 5-3
Age of Principals at the Start of Business

Age of Principals (in years)	DIRECT SAMPLE						INDIRECT SAMPLE *								
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
I	20 - 30	3	27.3	6	54.6	2	18.1	11	100	11	45.8	13	54.2	24	100
	31 - 40	4	21.0	12	63.2	3	15.8	19	100	10	62.5	6	37.5	16	100
	41 - 50	2	22.2	2	22.2	5	55.6	9	100	5	62.5	3	37.5	8	100
	Over 50	1	100	0	0	0	0	1	100	1	20.0	4	80.0	5	100
II	20 - 40	7	23.3	18	60.0	5	16.7	30	100	21	52.5	19	47.5	40	100
	41 & over	3	30.0	2	20.0	5	50.0	10	100	6	46.2	7	53.8	13	100

Correlation Data: (Direct Sample)

1. Over 35 vs. below 35: $r = 0.21$; $p = 0.10 - 0.20$
2. 30 and over vs. below 30: $r = 0.09$; $p = 0.50 - 0.60$
3. 40 and over vs. below 40: $r = 0.20$; $p = 0.10 - 0.20$
4. 30 - 40 vs. below 30 and over 40: $r = 0.04$; $p = 0.80 - 0.90$
5. Ranked: oldest to youngest: $r = (0.17)$; $p = 0.20 - 0.30$

* The age of the principal of one firm was not available

TABLE 5-4

CURRENT AGE OF PRINCIPALS

Age of Principals (in years)	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
I 30 - 35	2	28.6	4	57.1	1	14.3	7	100
36 - 40	2	50.0	2	50.0	0	0	4	100
41 - 45	2	20.0	5	50.0	3	30.0	10	100
46 - 50	2	14.3	7	50.0	5	35.7	14	100
Over 50	2	40.0	2	40.0	1	10.0	5	100
II 30 - 40	4	36.4	6	54.5	1	9.1	11	100
46 - 60	4	21.1	9	47.4	6	31.5	19	100

Correlation Data:

1. 30 - 39 vs. <30 and >39 overall : $r = 0.47$ $p = <0.01$
2. 35 - 44 vs. <35 and >44 $r = 0.22$ $p = 0.10 - 0.20$
3. Ranked ages: youngest to oldest : $r = 0.25$ $p = 0.10 - 0.20$
4. Ranked ages: oldest to youngest : $r = (0.2)$ $p = 0.30 - 0.40$

performance was found, except that there was a small negative correlation value for age ranked in descending order (i.e. oldest to youngest). This negative value indicates a fractional inverse relationship between higher age and standard of performance.

This result does not conform to those obtained by Matthews (1971), who found that principals in the middle-age bracket (30 - 39) performed significantly better than either the younger (below 30) or older (40 and over) principals. However, it must be noted that, unlike the present study, Matthews's sample consisted of firms all less than 14 years old.

- b) There was, however, a significant association found between the current age of the principals and their performance ranking. The analysis shows that the principals in the middle-age bracket (31 - 39) performed better than either those younger (below 30) or older (40 and over).

This current-age association with performance ranking, however, is contrary to the results obtained by Mayer and Goldstein. Their study found an inverse relationship between current age and the performance of the firms in their sample. They studied 93 firms in the first two years of inception and their analysis showed that the age of 'highest closures', relative to 'survivals', was highest for principals whose ages were between 20 and 29, with 30 - 39 age-bracket next. On the other hand, they found that the principals within the age-bracket of 50 - 59 had only one-third failures.

Needless to say, any comparison between this earlier and the present studies must be seen in the light of the differing samples and period of study, and hence age-levels, of the sampled firms. As indicated, Mayer and Goldstein studied the performance in the initial two years of the firms' establishment, while the present study covered a static calendar period viz 1965-70.

- c) For the indirect sample, and in terms of the age of principals at the start of business, the only large sub-sample to show any discernible difference in the performance distribution between the two categories, is for the 31 - 40 age-band, where it shows a bias towards the 'most-successful' category. The other sub-samples are either too small or, the difference between the two performance categories is minimal for any statistical significance.

2. Educational and Training Backgrounds:

Table 5-5 shows the distribution of the firms, belonging to the direct and indirect samples respectively, in the different performance-groups according to the educational and training backgrounds of the principals; the breakdown being

- a) elementary, secondary, technical college or university education,
- b) education up to and including secondary level, or beyond secondary level,
- c) apprenticeship training or no apprenticeship training.

TABLE 5-5
Education and Training Backgrounds of Principals

Type or Level of Training or Education	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Most Successful		Least Successful		Total			
	No.	%	No.	%	No.	%	No.	%	No.	%				
I Elementary or equivalent	1	20.0	4	80.0	0	0	5	100	6	35.3	11	64.7	17	100
Secondary or equivalent	4	21.1	9	47.4	6	31.5	19	100	8	47.1	9	52.9	17	100
Technical College or equivalent	3	30.0	4	40.0	3	30.0	10	100	8	57.1	6	42.9	14	100
University or equivalent	2	33.3	3	50.0	1	16.7	6	100	5	83.3	1	16.7	6	100
II Up to Secondary level	5	20.8	13	54.2	6	25.0	24	100	14	41.2	20	58.2	34	100
Beyond "	5	31.3	7	43.7	4	25.0	16	100	13	65.0	7	35.0	20	100
III With Apprenticeship Training	8	33.3	13	54.2	3	12.5	24	100	9	34.6	17	65.4	26	100
Without Apprenticeship Training	2	12.4	7	43.8	7	43.8	16	100	18	64.3	10	35.7	28	100

Correlation Data:

Direct Sample: 1. High School and beyond vs. below: Overall: $r = 0.29$;
 2. Having Apprenticeship Overall: Top vs. bottom: $r = 0.23$;
 Top vs. bottom: $r = 0.57$;
 Indirect Sample: 1. Elementary Education and non-success: $r_t = 0.36$;
 2. University " " success: $r_t = 0.61$

$p = 0.05 - 0.10$
 $p = 0.30 - 0.40$
 $p = < 0.01$
 $p = < 0.01$

It will be seen that a number of the sub-samples resulting from the breakdowns are too small to yield any findings of statistical significance. Nevertheless, it is interesting to note (particularly in the case of the university group in the indirect sample, with 83.3 per cent in the most successful group and 16.7 per cent in the least successful group) the extent to which some of them depart from the 25:50:25 and 50:50 pattern which would occur, in the direct and indirect sample respectively, in the case of even distribution.

A statistical analysis was undertaken where appropriate, and the resulting correlation data is included at the foot of the table. Within the context of the study, and in order of its importance and relevance, one would make the following comment on these findings:

a) Apprenticeship Training: For the direct sample, the analysis indicates a greater degree of success for firms where the principals had apprenticeship training than where they did not (correlation $r = 0.57$) whereas, in the case of the indirect sample, the indication was opposite. This difference of impact of the apprenticeship on performance for the two samples may well have been due to the difference in activities of the firms which constituted the two samples. Whereas, in the direct sample, more firms were in the metal, mechanical or electrical trades, where the need for the possession of skills acquired through indentured training was likely to be greater; the firms in the indirect sample were mainly

involved in product-manufacturing, where apprenticeship training was possibly less important than the acquisition of marketing or administrative skills.

b) Tertiary education: the difference in the influence of tertiary education within the two samples, however, seemed difficult to explain, except for a similar explanation to the above - i.e. the relevance of university-experience in product-manufacturing firms compared to technical firms. However, it must be noted that for the size of the sub-samples, the percentages are not widely different and could well have been due to the random variation which is likely to occur in small samples.

As a whole, the findings with respect to educational factors do not conform to those obtained in earlier studies. Matthews, for example, did not find any correlation between any aspect of educational background and the performance of the firms in his sample. Likewise, Woodruff and Alexander (1958) did not find in their firms any significant difference in educational background between the principals of the out-of-business firms and the principals of comparable 'going' concerns.

On the other hand, Mayer and Goldstein showed that firms in their sample, having principals with less educational experience "had a higher rate of discontinuances". Based on this analysis, they even concluded that, "This inverse association between education and business survival gives the lie to the assumption that anyone can go into business and be successful by dint of hard work alone" (104).

Hoad and Rosko also found positive association between educational background and success. For their 93 firms they found that "Higher education tends to be correlated with success and lower education with failure, but the results are not conclusive" (96).

Therefore generally, from these earlier studies and the present analysis, it is shown that educational experience can influence the subsequent performance of principals in business endeavours. The present study has provided evidence of a possible link between 'indentured-type' of training with its well-known practical content, and performance of certain types of business.

3. Occupational Backgrounds:

Table 5-6 shows the distribution of the firms, belonging to the direct and indirect samples respectively, in the different performance-categories according to the occupational backgrounds of the principals. The analysis covers:

- a) experience in production, sales, finance, or administration or no experience,
- b) experience in the trade of present business, and business ownership experience.

The tabulation, especially for those sub-samples which are relatively large, the percentage-distribution within the different categories of performance, and the statistical analysis for which correlation data is shown on the table, leads to the following observations:

TABLE 5-6
Principals' Previous Occupational Experience

Field of Work-Experience	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I														
Production/Technical	9	33.3	15	55.6	3	11.1	27	100	22	48.9	23	51.1	45	100
Sales/Marketing	3	27.3	5	45.4	3	27.3	11	100	8	80.0	2	20.0	10	100
Finance/Accounting	0	0	1	100	0	0	1	100	3	75.0	1	25.0	4	100
Administration	5	25.0	7	35.0	8	40.0	20	100	2	50.0	2	50.0	4	100
No Previous Experience	0	0	2	66.7	1	33.3	3	100	1	50.0	1	50.0	2	100
II														
Experience in the Trade of Present Business	8	33.3	12	50.0	4	16.7	24	100	-	not available	-	not available	-	not available
Business Ownership Experience	1	14.3	4	57.1	2	28.6	7	100	-	not available	-	not available	-	not available

Correlation Data: (Direct)

1. Production Experience vs. other types:
Overall: $r = 0.51$; $p = < 0.01$
Top vs. bottom: $r = 0.67$; $p = < 0.01$
2. Sales Experience vs. other types:
Overall: $r = 0.23$; $p = 0.10 - 0.20$
Top vs. bottom: $r = 0.29$; $p = 0.20 - 0.30$
3. Administration Experience vs. other types:
Overall: $r = (0.42)$; $p = < 0.01$
Top vs. bottom: $r = (0.32)$; $p = 0.05$
4. Experience in the trade vs. none:
Overall: $r = 0.37$; $p = 0.01 - 0.02$
Top vs. bottom: $r = 0.54$; $p = 0.01 - 0.02$

a) Field of work-experience:

i) The positive correlation between technical/production experience and performance for the direct sample, and sales/marketing and 'most-successful' ranking for the indirect sample, again implied the relevance, as discussed earlier, of each type of experience for the different types of firms respectively constituting the two samples.

ii) The negative correlation shown to be yielded by administrative/supervisory experience in the direct sample was an unexpected result (and contrary to the findings of Hoad and Rosko). Logically, one would expect managerial experience to be useful and to have a beneficial impact on performance, as principals with such background would be expected to manage their firms better than less-experienced persons. The only possible and plausible reason for this apparent incongruity between this hypothesis and the findings from this analysis, is that such experience might have adversely affected the principals' attitudes with regard to the needs of the small business situation. For example, it will be seen later, in table 5-36, that the firms in the 'least successful' category solicited less outside assistance than those firms in the other categories. One firm in this lower quartile did not use any outside advice, while five only used two types of services. This fact may perhaps suggest that the principals who had had management experience felt that their knowledge and skill were adequate for running their firms, and, therefore, they needed little or no outside support. Yet, during the interviews, some of

the principals' responses suggested that many of those who had managerial experience were also fairly inadequate on management skill and knowledge. If a principal's statement could be taken as a possible summing-up, or at least as a reflection of complacency, then perhaps we can to a certain extent see the basis of the negative correlation. One principal, who had ten years of managerial experience in a relatively large firm said, in reference to outside consultancy service:

"I do not need these 'know-all's' snooping around and lecturing me. They learn from the books but I have acquired my skill the hard way."

b) Experience in the Trade:

The tabulation and statistical analysis in Table 5-6 also indicates a link between having experience in the trade/line of the present business prior to the start of the firm, and the subsequent level of performance of the firm. Such relationship was not evident in any of the other studies surveyed. Hoad and Rosko and Mayer and Goldstein found in their respective studies that experience as an employee in a given line of business did not ensure success as business owner in the same line.

On the other hand, Dickerson and Kawaja (1967), found a negative correlation between previous experience in the same line of business and survival rate of their sampled firms. They concluded, "Of course, this does not mean that not having worked in a line of a business is a positive factor including success, but it does suggest that skills development

in an occupation is insufficient for the successful conduct of a business enterprise".

c) Business ownership experience:

It is interesting to note that the percentage-distribution of principals having had this experience shows a bias towards the lower-quartile grouping - in Table 5-6. However the size of the sub-sample in this case is too small to yield any findings of statistical significance.

4. Family Factors:

Table 5-7 gives a breakdown by family-size of the principals in the sample, at the start of their business ventures, and the performance distribution of these groups, whilst Table 5-8 shows the performance distribution of the firms according to the extent of family involvement in the business. A scrutiny of the tabulation and the correlation data indicates the following:

- a) All principals unmarried at the start of the business, are shown to be classified within the median-category; whilst of these then married but without children, none attained upper-quartile ranking.
- b) As the correlation data shows in the first table, there was a direct correlation between size of family and performance, but only in the top-versus-bottom analysis. Nonetheless, this suggests that there is a positive value in the larger family base, or bread-winning commitment of

TABLE 5-7

SIZE OF PRINCIPALS' FAMILIES
AT THE START OF BUSINESS

Number of children	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
No child	0	0	2	40.0	3	60.0	5	100
1 - 2	6	35.3	6	35.3	5	29.3	17	100
3 or more	4	33.3	6	50.0	2	16.7	12	100
Number of principals not married	0	0	5	100	0	0	5	100

Correlation Data:

1. Ranked firms in terms of family size: overall $r = 0.05$
 $p = 0.07$

top vs bottom $r = 0.64$: $p = < 0.01$

TABLE 5-8

PARTICIPATION OF PRINCIPALS'
FAMILY-MEMBERS IN THE BUSINESS

Family-members participating in the business.	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Wives	5	50.0	4	40.0	1	10.0	10	100
Children	2	40.0	1	20.0	2	40.0	5	100
Siblings	1	12.5	6	75.0	1	12.5	8	100
Other members	0	0	0	0	2	100	2	100

Correlation Data:

1. Wives participating vs. none: Overall: $r = 0.50$;
 $p = <0.01$

Top vs bottom $r = 0.57$
 $p = <0.01$

2. Wives/children participating vs none: Overall: $r = 0.53$
 $p = <0.01$

Top vs bottom $r = 0.58$
 $p = <0.01$

principals at the start of the business venture. Alternatively, the larger family-size might render a stability which has a possible bearing on subsequent business endeavours. This link between family-size and performance was also found by Matthews.

c) In terms of family participation, it was revealed that there was a correlation between wives' participation and performance; the relationship being more pronounced when the participation of the principals' children was also included. Thus, for the firms in the sample, the firms' performance improved with greater participation of family members in the business. This link could be attributed to the better support that would be expected from family members in the development of the firms. Furthermore, in terms of wives' participation, the positive results seem to support Clarke's (1972) contention, that, in many ways, joint participation of family members served to reinforce family solidarity, which could indeed be a fillip to the man's career.

5. Parental Background:

Table 5-9 shows the firms and their distribution in the three performance-groups in terms of the principals' parental backgrounds. The largest sub-sample in the table, crafts/technical background, shows a bias towards the upper quartile. A similar bias is apparent in the sub-sample pertaining to business or commercial parents. While the other three small sub-samples show a bias towards the lower

TABLE 5-9

OCCUPATIONAL BACKGROUNDS OF PRINCIPALS' PARENTS

Field of Occupation	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Business/Commercial	4	44.4	4	44.4	1	11.2	9	100
Professional fields	2	25.0	2	25.0	4	50.0	8	100
Agricultural	0	0	3	50.0	3	50.0	6	100
Government/Military	0	0	2	66.7	1	33.3	3	100
Crafts/Technical	4	28.6	9	64.3	1	7.1	14	100
Total with business and craft/technical backgrounds	8	34.8	13	56.5	2	8.7	23	100

Correlation Data:

- Business/Commercial vs others: overall: $r = 0.32$
 $p = 0.05$

Top vs bottom $r = 0.45$
 $p = 0.02 - 0.05$
- Crafts/Technical vs others: overall: $r = 0.47$
 $p = <0.01$
- Business and Technical vs others $r = 0.52$
 $p = <0.01$

quartile the size of the samples is too small to yield any statistical significance.

Statistical analysis, however, indicates a direct relationship between a principal having business parents or technical parents and the level of performance of his firm. Likewise, when the two types of parental backgrounds were taken together and compared with the rest, the correlation rate became enhanced. The correlation data is shown in the table.

Therefore, for this sample, it is implied that certain types of backgrounds, which in this case were fairly related to the principals' career, were facilitative to the firms' performance. The only other study (Matthews) which investigated this variable did not find any such significant relationship.

6. Reasons for Entering the Business:

Table 5-10 shows the performance distribution of the firms, belonging to the direct and indirect samples respectively, according to the principals' reasons for entering the business. It will be noted that a number of the sub-samples resulting from the various breakdowns in the table, are too small to yield any results of statistical significance. Nevertheless it is interesting to note that in the tabulation, one of these small sub-samples - family reasons - shows a distribution which has a heavy bias towards the ^{least successful group} ~~upper quartile~~ of the ⁱⁿ direct sample and, though not as strong, to the ^{lower quartile} ~~most successful group~~ of the ~~in~~ indirect sample.

TABLE 5-10

Principals' Motives for going into Business (Multiple Responses)

Stated Reasons	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
To make money	7	43.8	6	37.5	3	18.7	16	100	22	57.9	16	42.1	38	100
Result/Threat of Unemployment	3	33.3	6	66.7	0	0	9	100	0	0	5	100	5	100
To enhance prestige and status	3	60.0	1	20.0	1	20.0	5	100	6	46.2	7	53.8	13	100
To create craft	2	18.2	8	72.7	1	9.1	11	100	13	56.5	10	43.5	23	100
To continue Family Business	0	0	7	77.8	2	22.2	9	100	3	37.5	5	62.5	8	100
Frustration in employment	4	33.3	6	50.0	2	16.7	12	100	4	40.0	6	60.0	10	100
Need for Independence	9	31.0	14	48.3	6	20.7	29	100	15	53.6	13	46.4	28	100
Source of Livelihood	0	0	8	80.0	2	20.0	10	100	1	100	0	0	1	100

Correlation Data: (Direct)

1. Acquisitory (make money):
 Overall: $r = 0.42$; $p < 0.01$
 Top vs. bottom: $r = 0.61$; $p < 0.01$
 Overall: $r = 0.33$; $p = 0.01 - 0.05$
2. Independence Need:
 Overall: $r = 0.36$; $p = 0.01 - 0.05$
3. Aggrandizement Motives
 (i.e. all active or passive motives)

Among the relatively larger sub-samples in the table several significant performance distributions with respect to the various groupings, are discernible. Statistical analysis was undertaken to verify these apparent patterns, and the correlation data so obtained is shown at the foot of the table. The following points become evident from these analyses:

- a) There was a positive correlation between performance and acquisitory motive, suggesting that those principals who went into the business with a clear-cut objective of 'making money' tended to do better in terms of growth and profitability.
- b) When all the aggrandizement motives were taken together to include acquisitiveness, independence and prestige-seeking, and these were compared against non-aggrandizement motives (including unemployment-consequences, craft-need, succession-factors and livelihood reasons) it appeared that principals who were aggrandizement-motivated did better in the performance analysis, than those who had more passive motives.

The above result, to a certain extent, corroborated the findings of Mayer and Goldstein. In their analysis they found that the firms which "were opened either because of the owner's immediate need for a job or merely as an alternative way for the owner to make a living, showed poorer survival records" (114). On the other hand, they found that, as against these 'non-active' reasons, those

principals who established the firms with 'active-motives', such as in the hope of "making real money", or of building up an enterprise as a future source of income for either themselves or their children, had definitely better success records.

c) There was also a positive association found between performance and 'independence motive', though the probability rate was lower than that obtained for the above two factors. This lower correlation was not surprising since, in those principals who wanted to seek and maintain their independence may well be more cautious in their quest for growth and in their development programmes, especially if expansion demanded the injection of finance that would have to come from outside. Such borrowings were viewed by many of the principals as a possible threat to their independence. Therefore, a conservative policy that could emanate from this fear would have certain inhibitive effects on the performance of the firms.

7. Principals' Current Personal Objectives with Respect to the Business:

In Table 5-11 the performance of the firms in the direct sample is analysed in terms of the expressed current personal objectives of the principals with respect to the business. In the tabulation, one clear-cut indication is that virtually all the principals in the upper quartile emphasised definite positive or aggrandizement objectives, viz. acquisitory, power and freedom - these being fairly

TABLE 5-11

PRINCIPALS' CURRENT PERSONAL OBJECTIVES WITH RESPECT TO THE BUSINESS (MULTIPLE RESPONSES)

Perceived Current Objectives with respect to the business.	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Provide oneself with a job	0	0	3	75.0	1	25.0	4	100
Provide for retirement	0	0	0	0	2	100	2	100
Provide for children's future	0	0	1	100	0	0	1	100
Financial gain/security	2	33.3	3	50.0	1	16.7	6	100
Satisfaction of controlling a business	4	23.5	8	47.1	5	29.4	17	100
Freedom of being own boss	4	40.0	5	50.0	1	10.0	10	100

Correlation Data:

1. Controlling own business: overall: $r = 0.33,$
 $p = 0.01-0.05$

2. Financial gain: overall: $r = 0.35,$
 $p = 0.01 - 0.05$

consistent with their initial motives discussed above. For the other sub-samples, relating to non-aggrandizement objectives, despite their smallness, it is interesting to note that in all of them the performance distribution shows a complete bias for the median - and lower - quartile firms.

Statistical analysis - the data of which is included at the foot of the table - reveals that there was in fact a fairly strong relationship between aggrandizement objectives and performance.

8. Degree of Involvement at the Start:

The degree of the principals' involvement in the initial years was measured in terms of their dependence on the business for their income and employment. It was hypothesised that those principals who had a greater stake in the business in terms of these two factors, would have greater incentive to achieve success.

In Table 5-12, four indices of involvement are enumerated and, against them, the principals' responses are recorded. The pattern of performance-distribution in the table, supported by the statistical analysis, stimulate the following observations:

a) There was a positive relationship between performance ranking of the firms and the principals 'having no financial cushion to fall back upon in cases of failure'. This link is reflected by the relatively high correlation value, as

TABLE 5-12

THE EXTENT OF THE PRINCIPALS'
INVOLVEMENT AT THE START OF VENTURE
(MULTIPLE RESPONSES)

Degree of Commitment	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
No financial cushion	8	33.3	13	54.2	3	12.5	24	100
Had savings to fall back on	2	14.2	6	42.9	6	42.9	14	100
Had partner or wife employed elsewhere	2	40.0	2	40.0	1	20.0	5	100
Started business as part-time venture	2	50.0	1	25.0	1	25.0	4	100

Correlation Data:

1. Having no financial cushion vs other sources:

overall: $r = 0.29$; $p = 0.05-0.10$

top vs bottom: $r = 0.51$; $p = 0.02-0.05$

2. No financial cushion but with domestic support.

overall: $r = 0.43$; $p = < 0.01$

top vs bottom $r = 0.69$; $p = < 0.01$

shown at the foot of the table. Thus, it appeared that the 'non-insured' position of these principals had some motivating effect on their business endeavours.

b) The above relationship became more pronounced, as reflected by the higher correlation rate, when the principals, while not having any financial cushion, had domestic support - e.g. a wife or partner working elsewhere, or the principal taking part-time employment outside. This difference of having, or not having, domestic support could have manifested itself in the firms from the point of view of withdrawals of funds from the firms in their infancy stage. Those principals who had their wives or partners, or were themselves working elsewhere, had to rely less on their own firms to meet their financial needs. The chances were that almost all monies saved this way would be re-invested to finance the firm. Such practice would be expected to facilitate the initial development of these firms, in view of the universal weak financial base of the firms in the sample.

Mayer and Goldstein also found better performance, as reflected by higher survival rates, among those firms whose principals worked either part or full-time elsewhere, and did not depend entirely on income from the business. On the other hand, Hoad and Rosko found that there was a positive association between full-time involvement and success, but no difference between having and not having a financial cushion.

9. The Extent of the Principals' Duties:

As discussed earlier, the principals in the sampled firms 'wore many hats', carrying out more than one managerial function. Table 5-13 shows the various fields of duties undertaken by the principals. From the tabulation it can be seen that some of the sub-samples are too small to yield any statistical significance. In the five relatively larger sub-samples, only one reveals any significant bias with respect to performance; viz. the group of firms whose principals performed financial/commercial duties. In this sub-sample, only four out of 28 (14.3 per cent) attained upper-quartile; suggesting that this type of firm tended to be in the lower performance ranking.

However, as the correlation data in the table shows, no significant correlation was obtained for any of the sub-variables listed. While there was a positive correlation between performance and the limitation of duties to a maximum of two fields, this was so low, that it has to be treated with the utmost caution.

10. Principals' Attitudes and Perception:

The principals' perception of role, and their attitudes towards various activities of the firms, in certain respects reflected their involvement in and, their objectives for the firms; as well as their motivation for growth. This perception and attitudes, if potent, might influence the direction of the firms' development and performance.

TABLE 5-13

THE PRINCIPALS' FIELDS OF DUTIES
(MULTIPLE RESPONSES)

Fields of Duties	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Selling	8	22.9	18	51.4	9	25.7	35	100
Financial/Commercial	4	14.3	14	50.0	10	35.7	28	100
Office/Personnel	8	24.2	18	54.6	7	21.2	33	100
Production Planning	5	25.0	11	55.0	4	20.0	20	100
Actual shop-floor	3	33.3	5	55.6	1	11.1	9	100
Design & Development	8	28.6	14	50.0	6	21.4	28	100
Doing all duties	2	33.3	3	50.0	1	16.7	6	100

Correlation Data:

- Limited to two fields v > 2: overall: $r = 0.26$
 $p = 0.05 - 0.10$
 top vs bottom $r = 0.36$
 $p = 0.10 - 0.20$
- Three field maximum vs > 3: overall: $r = 0.15$
 $p = 0.30 - 0.40$
 top vs bottom $r = 0.19$
 $p = 0.40 - 0.50$

a) Personal Role:

Table 5-14 shows the distribution of the firms in the direct sample, in the three performance-groups, in terms of the principals' varying perceptions. A casual scrutiny of the tabulation shows the extent to which some of the sub-samples depart from the 25:50:25 pattern as would occur in the case of an even distribution. Statistical analysis was effected where appropriate, and the resulting correlation data obtained is included at the foot of the table. Based on these analyses the following summation of the results is made:

- i) Firms whose principals perceived technical skill as their main contribution were found to perform better compared to the others. This link seemed further to reinforce the results of earlier analysis pertaining to occupational and parental backgrounds where, in both cases, technical expertise was strongly correlated with high performance ranking.
- ii) Another positive relationship obtained was in the contribution perceived in terms of 'hard work' to successful performance. The high correlation of $r = 0.48$ yielded a probability of < 0.01 .
- iii) Managerial-skill contribution did not show any conclusive association with success, neither in the overall analysis nor the 'top-versus-bottom' analysis.
- iv) Despite the smallness of the sub-sample, it is

TABLE 5-14

PERSONAL CONTRIBUTION/ROLES AS
PERCEIVED BY THE PRINCIPALS
(MULTIPLE RESPONSES)

Type of Role or Contribution	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Practical/technical skill	10	37.0	13	48.2	4	14.8	27	100
Trade knowledge	2	15.4	8	61.5	3	23.1	13	100
Managerial ability	3	21.4	6	42.9	5	35.7	14	100
Providing Finance	0	0	2	25.0	6	75.0	8	100
Hardwork & determination	9	31.0	16	55.0	4	13.8	29	100

Correlation Data:

1. Practical/Technical Data: overall: $r = 0.52$,
 $p = <0.01$
top vs bottom: $r = 0.74$
 $p = <0.01$
2. Managerial Ability: overall: $r = 0.17$; $p = 0.20-0.30$
top vs bottom: $r = 0.01$, $p = 0.90$
3. Hardwork & Industry: overall: $r = 0.48$, $p = <0.01$
top vs bottom $r = 0.42$, $p = 0.05-0.10$
4. Providing finance; correlated with least successful ranking
 $rt = 0.75$

interesting to note that the group of firms whose principals saw their role as that of providers of finance were preponderantly in the lower-quartile performance grouping.

b) Perceived Determinants of Success:

Different principals perceived different combinations of factors as the pre-requisites for success in the business. Table 5-15 shows these various factors indicated by the respondents in the sample and the performance distribution of the various sub-samples. It will be seen that at least three sub-samples, i.e. those involving firms whose principals perceived 'knowledge of trade', 'technical skill' and 'flair to recognise opportunities' respectively, have a bias towards the upper-quartile of performance; another two ('confidence in ability' and adequate finance) show a bias towards the lower quartile; whilst three other groups ('saleable products', 'integrity' and 'preparedness for challenge') are preponderantly in the median-performance grouping.

However, as can be seen from the correlation data at the foot of the table, not all the above indications were substantiated by statistical tests. A significant relationship was only found to exist between performance and:

- i) technical skill,
- ii) knowledge of trade;

as perceived determinants of success. Thus, for this sample, it seemed that the firms of those principals who perceived either of the two factors above as determinants of success, performed better in growth and profitability than did other firms

TABLE 5-15

FACTORS PERCEIVED BY THE PRINCIPALS
AS ESSENTIAL FOR SUCCESS IN BUSINESS
(MULTIPLE RESPONSES)

Perceived factors	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Knowledge of trade	8	47.1	7	41.2	2	11.8	17	100
Technical skill	7	35.0	9	45.0	4	20.0	20	100
Confidence in ability	2	16.7	6	50.0	4	33.3	12	100
Adequate finance	0	0	6	60.0	4	40.0	10	100
Flair to recognise opportunities	5	31.3	8	50.0	3	18.7	16	100
Preparedness for challenge	1	7.1	9	64.3	4	28.6	14	100
Hard work	7	24.1	15	51.8	7	24.1	29	100
Saleable product	1	8.3	9	75.0	2	16.7	12	100
Luck	2	28.6	3	42.8	2	28.6	7	100
Integrity	2	12.5	11	68.8	3	18.7	16	100

Correlation Data:

1. Technical skill: overall: $r = 0.39$, $p = 0.01-0.05$
top vs bottom $r = 0.50$, $p = 0.02-0.05$
2. Knowledge of trade: overall: $r = 0.50$, $p = <0.01$
top vs bottom: $r = 0.61$, $p = <0.01$
3. Technical skill and knowledge of trade: overall: $r = 0.46$
 $p = <0.01$
top vs bottom: $r = 0.65$
 $p = <0.01$
4. Hardwork: overall: $r = 0.07$, $p = 0.60-0.70$
top vs bottom $r = 0.14$, $p = 0.50-0.60$
5. Flair to recognise opportunity: Overall: $r = 0.30$
 $p = 0.05-0.10$
top vs bottom: $r = 0.27$,
 $p = 0.20-0.30$

c) Attitude Towards Growth:

It is often said that the theory of 'self-fulfilling prophecy' is operative in many human endeavours, (Merton: 1964). Thus, one's belief in the outcome of one's action helps in itself to facilitate and precipitate the outcome. It was therefore hypothesised that the attitude towards growth and success manifested among the principals influenced the level of performance of the firms.

Table 5-16 analyses performance with respect to this attitude, in terms of growth-orientations attributed to the principals of the firms. The analysis was based on the principals' responses to the question, "What sort of expansion do you plan for your firm" (Appendix I). Their replies were ascertained further, through interview, by assessment of their other related attitudes; and of their plans of action or policies pertaining to areas of possible bearing on, and hence indicative of, their motivation towards, growth and success. These areas include the market, R & D programmes, assets policy, labour recruitment and manpower development, capitalization plans and short/long term objectives for their firms. In these respects the principals' motivation for growth was actually assessed in relation to the firm's performance in the preceding five years.

The tabulation is clear in demonstrating the association between positive motivation and immediate-past performance, even without resort to statistical tests. It was found that of the firms with principals who were positively

TABLE 5-16

ATTITUDES OF PRINCIPALS TOWARDS GROWTH

Expressed attitude	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Positive toward growth	9	40.9	10	45.5	3	13.6	22	100
Passive	1	20.0	2	40.0	2	40.0	5	100
Negative	0	0	8	61.5	5	38.5	13	100

Correlation Data:

Positive vs fatalistic and passive/negative

overall: $r = 0.50$, $p = < 0.01$

top vs bottom: $r = 0.74$, $p = < 0.01$

motivated towards growth, more were in the upper-quartile grouping than in the lower quartile.

Among the negatively-motivated group of principals were those who not only lacked the motivation for growth, but also were deliberately stifling and checking any tendency for such growth. In the sub-sample for this group, it is apparent that there is a clear-cut bias towards lower-quartile performance. Their resentment against growth, and consequent preference for maintaining the present size of their firms, has been discussed in an earlier chapter.

Finally, there was the passive group of principals which was neither positive nor negative towards growth. They appeared to be fatalistic and preferred to leave the development of their firms to the course of events and to chance factors alone. For this group of firms, in the tabulation, a bias towards the lower quartile is discernible.

As the correlation data show, the above clear-cut indications were confirmed by statistical analysis which revealed a high positive correlation between a conscious desire and policy for growth, either as a continuous or as a long term goal, and performance ranking. To this extent, therefore, for this sample, the 'self-fulfilling prophecy' holds true and, it appears that its manifestation among the principals has provided a stimulus to improvement in performance.

This association was to a certain extent also observed by Lydall, who found out that 'there is a certain

tendency for their desires to be related to past experience of growth. Of the firms which have grown in the previous six years, 74 per cent wanted to grow in the future, against 81 per cent of those which have declined'. Furthermore, he also found that the least ambitious group of businessmen was that whose firms had remained at about the same size during the previous six years.

Likewise, Boswell found a link between attitudes towards future growth and current performance. In his study, firms which had been growing fast mostly sought further expansion, whereas previous slow-growers showed some tendency towards conservative goals for the future. Very broadly, therefore, the more profitable firms in his sample were biased towards expansionism, the less profitable towards either rationalisation or conservation.

Thus, these various studies have indicated that the principals' attitude and policies, either past, current or future, tend to affect the level of performance of the firms concerned.

B Variables Pertaining to the Firms' Structure and Organisation:

Apart from the attributes of the principals, various other factors pertaining to the firms are also possible determinants of performance and these were considered as follows:

1. Age of Firm:

It is possible to hypothesise that firms exhibit different growth and probability patterns at different age levels. Table 5-17 presents an analysis by age-band for the two samples. It is apparent from the table that only one of the four age-bands (0 - 10 years) in the direct sample shows a performance bias towards the upper-quartile grouping: of 20 firms in this group nine or 45 per cent of them attained the 'most-successful' ranking as against 15 per cent which fell into the least successful category. In the other three age-bands, there appears to be a greater number of firms in the median and lower-quartile groupings. These indications therefore imply that younger firms in the sample tended to be more successful than the older firms.

However, no similar clear-cut indication is observable from the figures in the indirect sample. The percentage-distribution of firms in the various age-bands in the two performance categories appears to be fairly even. The only age-band (over 30) which suggests any likely difference involved too few firms to yield any statistical significance.

The apparent connection between youth and performance in the direct sample was amply proven statistically, and the data for this is shown at the foot of the table.

The above association between age and performance was also found in other studies. For example, McGuire (1963) stated that age evidently has a relationship to the annual average rate at which sales expand - the firms in his sample

TABLE 5 - 17
Age Distribution of Firms

Age in Years	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
0 - 10	9	45.0	8	40.0	3	15.0	20	100	19	51.4	18	48.6	37	100
11 - 20	0	0	8	72.7	3	27.3	11	100	4	50.0	4	50.0	8	100
21 - 30	1	16.7	3	50.0	2	33.3	6	100	3	60.0	2	40.0	5	100
Over 30	0	0	1	33.3	2	66.7	3	100	1	25.0	3	75.0	4	100

Correlation Data: (Direct Sample)

1. Ranked firms: (ascending order) - youngest to oldest:
 - Overall $r = 0.47$; $p = < 0.01$
 - Top - vs - bottom $r = 0.66$; $p = < 0.01$

which were less than five years old grew more rapidly, and those over ten years least rapidly. Deeks (1970) found in his sample that, the older the firm, the greater the likelihood of it being static in terms of growth. Likewise, Boswell found in his study that, the younger the age-group of the firm, the better was the performance.

All these studies, including the present, are therefore in complete agreement with the contention that the age of the firm bears an influence on its performance - the younger the firm the better the likely performance.

2. Nature of the Firms' Business:

As the scope of activities of the firms in the samples were fairly mixed, it was decided to ascertain the relationship between types of firms and performance. Table 5-18 shows a breakdown of the firms in the direct sample, by type of end-product and principal activity; whilst Table 5-19 shows the breakdown of activities of the firms in the indirect sample, as appearing in CoSIRA records. In both samples, it will be seen that a number of the sub-samples resulting from the breakdowns are too small to permit of any assumption or inferences.

However, among the larger sub-samples certain indications with respect to performance-distribution is discernible. Statistical analysis was undertaken, where appropriate, and the correlation data is shown at the foot of the tables. Two significant correlations were obtained in the analysis:

TABLE 5-18

CLASSIFICATION OF THE FIRMS IN TERMS OF THEIR PRODUCTS AND PRINCIPAL ACTIVITIES

I Types of end-products. II Principal activities	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
I Fabricated metal & metal products	1	9.1	8	72.7	2	18.2	11	100
Components, parts or tools	4	33.3	7	58.1	1	8.4	12	100
Wood products	2	66.7	0	0	1	33.3	3	100
Stone, clay or plastics	3	50.0	2	33.3	1	16.7	6	100
Machinery equipment	0	0	3	60.0	2	40.0	5	100
Miscellaneous	0	0	0	0	3	100	3	100
II Manufacturing durable goods	6	33.3	7	38.9	5	27.8	18	100
Manufacturing non-durable goods	0	0	0	0	2	100	2	100
Industrial processing	2	22.2	6	66.7	1	11.1	9	100
Construction	2	28.6	5	71.4	0	0	7	100
Miscellaneous	0	0	2	50.0	2	50.0	4	100

Correlation Data:

- Component-producing firms vs others: overall: $r = 0.45$,
 $p = < 0.01$
top vs bottom: $r = 0.65$
 $p = < 0.01$
- Manufacturing durable goods or others: Overall: $r = 0.14$
 $p = 0.30-0.40$
top vs bottom $r = 0.26$
 $p = 0.20-0.30$

TABLE 5-19

PRINCIPAL ACTIVITIES OF INDIRECT-SAMPLED FIRMS

Type of Activities*	Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%
Manufacturing products	15	71.4	6	28.6	21	100
Metal fabricators	0	0	2	100	2	100
Building & construction	3	75.0	1	25.0	4	100
Electronic & electrical	3	100	0	0	3	100
Mechanical: presswork, machining etc.	2	28.6	5	71.4	7	100
Clay, plastics & rubber	2	16.7	10	63.3	12	100
Miscellaneous	2	40.0	3	60.0	5	100

* The classification differs from that used for the direct sample in order to conform to CoSIRA Organisers' own records.

Correlation Data:

1. Manufacturing Products and "most-successful" ranking
rt = 0.53.
2. Clay, plastics and rubber and "least successful" ranking
rt = 0.66.

a) For the direct sample: there was a significant positive relationship between component-producing activities and performance ranking. This result appeared to agree somewhat with the findings of Hoad and Rosko. They showed that processors and producers of parts and components which cannot be identified in the final products almost never failed. However, unlike the present study, their sampled firms in this category only had moderate performance.

b) For the indirect sample: a link was obtained between product-manufacturing and performance. This contradicted the findings of Hoad and Rosko, whose study revealed a high failure rate among manufacturing business. The present study also found a relationship between least-successful ranking and firms operating in the wood, plastics and rubber trades.

3. Ownership Patterns:

Since almost all the firms were incorporated limited companies, the only measurable difference of possible consequence for performance was whether the firms which were family owned, i.e. the majority-interest controlled by a family, fared better than firms which were not. Table 5-20 shows the performance distribution of the firms in the two samples in terms of this ownership factor. Based on the indication of percentage distribution in the various performance-categories, and the statistical analysis, the data of which is shown at the foot of the table, the following inferences can be made:

TABLE 5-20
The Ownership Patterns of the Firms

Types of Ownership	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I Family-owned Partnership Sole Ownership	5	22.7	11	50.0	6	27.3	22	100	18	69.2	8	30.8	36	100
	2	22.2	5	55.6	2	22.2	9	100	2	16.7	10	83.3	12	100
	3	33.3	4	44.5	2	22.2	9	100	7	43.8	9	56.2	16	100
II Limited Companies Non-Limited Companies	9	25.0	18	50.0	9	25.0	36	100	20	58.8	14	41.2	34	100
	1	25.0	2	50.0	1	25.0	4	100	7	35.0	13	65.0	20	100

Correlation Data: (Direct Sample)

1. Family owned vs. not: Overall: $r = 0.12$; $p = 0.40 - 0.50$
 Top vs. bottom: $r = (0.15)$; $p = 0.50 - 0.60$

- a) In the direct sample, there was no association found between family-ownership and the performance of the firms. This result somewhat contrasts itself with that obtained pertaining to family participation, discussed earlier. While the active involvement of family members in the business appeared to have a bearing on performance, family ownership did not appear to make any difference.
- b) In the indirect sample, however, there was an indication of a positive link between family ownership and 'most-successful' ranking, and a high correlation between partnership and 'least-successful' ranking.
- c) In the remaining sub-samples, although there appears to be an indication of the percentage distribution departing from the even distribution pattern, (e.g. sole ownership in the direct sample) the size of the groups are too small to yield any statistical significance.

4. Size and Sources Capital:

Table 5-21 gives a breakdown of the direct sample by initial capital investment, and the performance distribution of these sub-samples, while Table 5-22 shows the distribution of these firms in terms of the sources of their initial and current finances. It will be noted that, in both tables, a number of the sub-samples are too small to yield any findings of statistical significance. Nevertheless it is interesting to note (particularly in Table 5-22(b) pertaining to 'bank loans' and 'financial institutions' - where, in each case, a higher percentage of firms are in the lower quartile -

TABLE 5-21

AMOUNT OF INITIAL CAPITAL
USED TO START BUSINESS.

Amount (in £)	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
0 - 1000	7	29.2	15	62.5	2	8.3	24	100
1001 - 2000	1	33.3	1	33.3	1	33.4	3	100
2001 - 3000	1	33.3	1	33.3	1	33.4	3	100
3001 - 4000	0	0	0	0	0	0	0	0
Over 4000	1	10.0	3	30.0	6	60.0	10	100

Correlation Data:

Having less than £1,000.00 vs. more $r = 0.91$
 $p = < 0.01$

TABLE 5-22

SOURCES OF CAPITAL USED BY THE FIRMS
(INITIAL AND CURRENT CAPITAL)

Sources used	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
(a) Initial Capital								
Personal/Partner's savings	4	21.1	10	52.6	5	26.3	19	100
Gratuity/Redundancy payments	2	50.0	2	50.0	0	0	4	100
Family and friends	2	10.5	8	42.1	9	47.4	19	100
Sale of property/former business	1	25.0	2	50.0	1	25.0	4	100
Banks	1	25.0	2	50.0	1	25.0	4	100
(b) Current Capital								
Family/personal loans	6	28.5	9	42.9	6	28.5	21	100
Bank loans	6	18.8	18	56.2	8	25.0	32	100
Government Credit Agencies	9	40.9	10	45.5	3	13.6	22	100
Financial Institutions	1	14.3	2	28.6	4	57.1	7	100
Shares & Debentures	0	0	3	75.0	1	25.0	4	100
Ploughed-in profit	9	25.0	18	50.0	9	25.0	36	100

Correlation Data:

- Initial Sources: Personal vs borrowings:
Overall: $r = 0.42, p = < 0.01$
Top vs bottom: $r = 0.51, p = < 0.01$
- Current Sources: Government Credit Agencies vs not using these:
Overall: $r = 0.56, p = < 0.01$
Top vs bottom: $r = 0.57, p = < 0.01$

the extent to which some of them depart from the 25:50:25 pattern which would occur in the event of even distribution.

A statistical analysis was undertaken where appropriate, and the correlation data so obtained is included at the foot of the respective tables. Within the context of the study, and in order of its importance and relevance, the following comment on the findings is made:

a) In terms of size of initial capital investment, the only sub-samples which were possibly large enough to have any meaning were that covering £1000 or less investment and that covering over £4000 investment. It was found that there was a strong positive correlation between size of investment and performance of the firms. Thus, for this sample, limited initial finance seemed to favour success or, at least, it definitely shows that a 'shoe-string' beginning was no handicap to these firms.

This did not conform with other investigators' findings. Mayer and Goldstein found that failure rates were higher among the firms with 'shoe-string operations'. Likewise, Hoad and Rosko found that successful firms tended to start their businesses on a stronger financial base, than other and less successful firms. However, from the fact that failure rates were also high in the medium-capital firms, in both these earlier studies, they concluded that, while very low initial capital was associated with non-successful firms, the amount of capital invested was not necessarily the decisive factor with respect to success. Other conditions

pertaining to the man and the firm could also have played a part in compensating for capital handicap. For example, among the firms covered in the present study, as has been discussed earlier, many of the principals circumvented their financial inadequacies by excellent improvisations which were seen to have reflected, or in some cases germinated, innovative capacities. Perhaps it was that this tenacity, coupled by motivation and as will be shown, assistance from CoSIRA, was more instrumental in shaping the development of the firms than the amount of initial capital investment.

b) It was found that, in terms of sources of the initial capital investment, firms which had relied only on personal sources had fared better than those who utilised borrowed funds. This result could have emanated from the fact that principals who depended on personal sources were more likely to be more positive in risk-taking, compared with those who utilised borrowed funds which, being from families and friends in the main, were likely to warrant greater prudence or caution.

c) As far as current finance was concerned, the analysis shows that firms which used governmental credit agencies were more biased to 'most-successful' performance than were those which used other sources of finance. As will be seen later, the use of this source of finance was usually accompanied by a closer surveillance of fund utilisation and, in case of CoSIRA, by management advice, both factors of which could enhance chances of success.

5. Planning before Starting the Business:

It was hypothesised that principals who undertook some forms of planning before starting the business would tend to do better than those who did not plan. It was difficult, however, to ascertain with any accuracy the types of planning undertaken, since it could range from some discussion with family members, or with the bank manager, to actual calculation and pen-and-paper planning. For this analysis, however, planning was taken to refer to both types, as it was considered that principals who undertook some kind of planning had at least engaged themselves in some premeditation and, possibly, actual calculation.

Table 5-23 shows the respective performance distribution of firms which had, and those which had not, engaged in prior planning activities. It indicates that a greater proportion of the planned firms achieved upper-quartile ranking. Conversely, of the firms which had not planned, only 20 per cent of them were in the upper-quartile of performance while 35 per cent were in the lower quartile.

Statistical analysis confirmed the above apparent relationship between prior planning and performance. Therefore, planning, including consultation prior to start of business had, for this sample of firms, a significant bearing on their level of performance.

This finding agrees with that obtained by Hoad and Rosko, who showed that a greater amount of planning activity preceded the establishment of the successful firms. Kelly

TABLE 5-23

NUMBER OF FIRMS WHICH UNDERTOOK PRIOR
PLANNING BEFORE THE START OF VENTURE.

	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
"Planned Firms"	6	28.6	12	57.1	3	14.3	21	100
"Unplanned Firms"	4	20.0	9	45.0	7	35.0	20	100

Correlation Data:

"Planned" vs unplanned: overall: $r = 0.31$
 $p = 0.01-0.05$

top vs bottom: $r = 0.39$
 $p = 0.05-0.10$

and associates (1968) suggested that the problems relating to incompetence among the less-successful firms could often be traced to the fact that the ownership was an unplanned occurrence, e.g. through inheritance.

6. Changes Effected by the Firms:

One of the characteristics of the rural small firms, as has been discussed earlier, is the frequency of change that the firms had to effect with respect to ownership, products, locality and premises. Such change was evident, especially in their early years, among the firms studied. It was hypothesised that firms that experienced greater instability, as reflected by frequency of changes, tended to be less successful.

Table 5-24 shows the distribution of the firms in the sample, in the three performance-classes according to the types of changes experienced by these firms. It is evident that many of the sub-samples in the table are too small to yield any findings of statistical significance. For the relatively larger sub-samples statistical analysis was undertaken, and the correlation data yielded is included at the foot of the table. Based on these findings the following inferences can be made:

a) Founder-owned (i.e. first-generation ownership) firms did better in performance than inheritor-controlled firms. This result confirmed the findings of earlier studies: Deeks, in his study of small firms in the furniture and timber industry, found that, 'the expansion of a company was more

TABLE 5-24

TYPES OF CHANGES EFFECTED BY THE FIRMS

Types of Change	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
(a) Ownership changes:								
No change: (founder-owned)	8	32.0	12	48.0	5	20.0	25	100
Succession: (inheritor-owned)	0	0	5	71.4	2	28.6	7	100
Broken Partnership	2	50.0	2	50.0	0	0	4	100
Bought-over ("Outsider-owned")	0	0	1	25.0	3	75.0	4	100
(b) Other changes								
Changes in premises	7	24.1	14	48.3	8	27.6	29	100
Changes in locality	5	25.0	9	45.0	6	30.0	20	100
Changes in product-base	2	25.0	5	62.5	1	12.5	8	100

Correlation Data:

1. Founder-owned (first generation) vs "Inheritor-owned":
 - Overall: $r = 0.32, p = 0.01-0.05$
 - Top vs bottom: $r = 0.56, p = <0.01$

2. Original owner vs changed ownership (i.e. stability vs instability of ownership):
 - Overall: $r = 0.32, p = 0.01-0.05$
 - Top vs bottom: $r = 0.65, p = <0.01$

3. Stability of locality/premises vs instability:
 - Overall: $r = 0.25, p = 0.10-0.20$
 - Top vs bottom: $r = 0.26, p = 0.20-0.30$

likely under first-generation management than at any subsequent time'. Likewise, Boswell suggested that founder-run firms tended to perform better than inheritor-controlled firms.

The basis of the above link seems to lie in the possible greater involvement and identification with the firms, by founders than inheritors, the latter of whom, in most cases, had come into the business not long before they assumed the ownership of the firms. As indicated earlier, there were reluctant successors among the inheritors of these firms, who had been obliged to assume control through premature retirement or death of a founder, and it is fairly safe to assume that such leadership might not augur well for high attainment in performance.

b) A similar positive correlation was also obtained when stability of ownership was compared against wider changes, covering changes resulting from succession, broken partnership and outright purchases. Again this result seems to vindicate the apparent facilitative effects on performance of founder-ownership firms.

c) Unlike the clear-cut association between stability of ownership and performance above, there was no similar strong correlation between stability of locality and premises, and performance. Thus, as far as this sample was concerned, mobility of firms did not affect their performance to any significant degree.

7. Patent Development:

The ownership of patents to a certain extent reflects the presence in the firms, of innovative ability on the one hand, and research and development activities on the other. It was in order to verify whether or not there was any relationship between these and performance that a statistical analysis of this was made.

Table 5-25 gives the number of firms in the three performance-groups which held at least one patent, (some firms are shown to hold more than one). From the tabulation there is only an evidence of a slight preponderance of firms in the upper quartile. Upon statistical analysis, however, a positive relationship was found to exist between patent ownership and performance, though the overall correlation rate was relatively lower than that obtained for a top-versus-bottom analysis.

The above implied link of innovative ability and performance was also found by McGuire. He concludes that research of any sort is evidence of managerial propensities towards growth, for it implies that management is searching for ways in which some aspects of the business may be improved; and the development of products, as indicated by patent rights, is a reflection of this conscious effort. The holding of patents, therefore, was important to success of the firms concerned, in that the patent protection obtained stimulated the growth of sales through giving competitive advantage, by virtue of the exclusivity of design or products.

TABLE 5-25

PATENT-OWNERSHIP OF FIRMS

	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Firms holding patents	7	38.9	6	33.3	5	27.8	18	100
Distribution of Patents in performance groupings	12	31.6	12	31.6	14	36.8	38	100

Correlation Data:

With Patents vs without Patents:

Overall: $r = 0.31, p = 0.05-0.10$

Top vs bottom: $r = 0.60, p = < 0.01$

C. Variables Pertaining to the Management Practices:

As has been indicated in Chapter Three, the management structure and organisation of the small firms in the sample were generally informal and simple. Therefore, it was not easy to isolate particular techniques to ascertain their effectiveness. Furthermore, even when a technique was claimed to be in operation, the actual implementation was often of the home-spun variety or, at best, a much-diluted version of the actual technique practised in larger firms. Nonetheless, it was important to distinguish firms which practised some forms of system, however diluted, from those which relied completely on a random pattern.

1. Specialist Staff:

Table 5-26 shows the type of specialist personnel employed by the firms in the two samples, the number of firms which employed them, and the performance distribution of these firms. In the direct sample, although two sub-samples are too small to have any meaning, it is nevertheless interesting to note that, without exception, all these firms employing specialists have over 25 per cent in the lower-quartile performance group and, in the case of the two large sub-samples, only 16.7 per cent and 18.8 per cent were in the upper quartile of performance. On the other hand, in the indirect sample, all the sub-samples show a definite bias towards the 'most-successful' group. Statistical analysis was undertaken where appropriate, and the correlation data obtained is included in the table.

TABLE 5-26

Types of Specialist Management Personnel employed by the Firms
(Multiple Responses)

Types of Specialists	DIRECT SAMPLE						INDIRECT SAMPLE							
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Sales/Marketing Manager	2	16.7	6	50.0	4	33.3	12	100	14	70.0	6	30.0	20	100
Production/Works Manager	3	18.8	8	50.0	5	31.2	16	100	23	71.9	9	28.1	32	100
Accountant	1	25.0	1	25.0	2	50.0	4	100	10	83.3	2	16.7	12	100
Engineers/Technical Specialist	1	33.3	1	33.3	1	33.4	3	100	20	74.1	7	25.9	27	100
Firms having Specialists	4	21.1	9	47.4	6	31.5	19	100	*	-	-	-	-	-

Correlation Data:

Direct Sample:

1. Firms having Management Specialists vs. not having such Specialists: Overall: $r = 0.02$; $p = 0.90$

Top vs. bottom: $r = 0.15$; $p = 0.50-0.60$

Indirect Sample:

1. With Accountant vs. without: $r_t = 0.66$

2. With Engineers vs. without: $r_t = 0.73$

3. With Marketing Specialist vs. without: $r_t = 0.48$

4. With Works/Factory Manager vs. without: $r_t = 0.75$

* Data for this sub-sample was incomplete

The above analysis yielded results which make the following inferences possible:

- a) For the indirect sample, there seemed to be a positive relationship between the presence of specialist personnel and the performance-level of the firms. There was also a fairly high correlation with performance for each type of specialist personnel employed. However, the results do not enable us to ascertain what, if any, interaction existed between these variables - i.e. whether the employment of specialist staff caused the better performance or the level of performance of the firms enabled them to employ the specialist personnel.
- b) No statistical significance was indicated between the employment of specialist staff and the performance ranking of the firms in the direct sample. Therefore, for this group of firms, no link was revealed between the presence of specialists and the performance of their respective firms.

2. Wage Payment System:

Table 5-27 indicates the wage payment system adopted by the firms in the sample and the performance distribution of firms practising each method. It is clear from the table, and supported by statistical analysis undertaken that as a whole, more firms which applied a bonus system achieved better results in terms of performance than those firms which did not. Thus, for this group of firms, the presence of some forms of incentive for their employees seemed to have a favourable effect on performance. This result corroborated the findings obtained by Matthews.

TABLE 5-27

WAGE-PAYMENT SYSTEMS ADOPTED BY THE FIRMS
(MULTIPLE RESPONSES)

Systems practised	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Straight piecework	0	0	2	100	0	0	2	100
Contract pricing	1	50.0	1	50.0	0	0	2	100
Flat rate	3	14.3	13	61.9	5	23.8	21	100
Flat rate + time bonus	5	45.5	5	45.5	1	9.0	11	100
Flat rate + output/ profit bonus	3	33.3	2	22.2	4	44.5	9	100
No. of firms with a bonus system	8	40.0	7	35.0	5	25.0	20	100

Correlation Data:

1. With bonus vs without: overall: $r = 0.39,$
 $p = 0.01 - 0.05$
- top vs bottom: $r = 0.45,$
 $p = 0.02 - 0.05$

3. Pricing Method:

As has been indicated in an earlier chapter, the sampled firms relied on their accumulated experience for quoting prices. However, some of the firms had acquired, mostly through CoSIRA service, a more systematic pricing method. It was therefore postulated that firms which priced their goods or services on some basis of costing would perform better than those which relied entirely on a 'guesstimating' method.

Table 5-28 summarises the various pricing methods adopted by the firms in the sample, while Table 5-29 shows those of the firms in the indirect sample. In the former, it is evident that no firms in the upper-quartile grouping relied on either of the non-costing bases - guesstimating or external standards - and in two of the pricing-methods based on cost-calculation, there are more firms in the upper than the lower quartiles. In the indirect sample, three sub-samples show a definite ^{bias} ~~bais~~ towards the 'most-successful' grouping and two towards the 'least-successful' category. Statistical analysis was undertaken where appropriate and this yielded the following inferences:

In the direct sample,

- a) There was a correlation obtained between the practice of a cost-calculation pricing method and performance, but only for the top-versus-bottom analysis.
- b) Of the three cost-calculation pricing methods, a fairly high correlation with performance was obtained for 'material plus machine or labour hour rate'. To a lesser extent, and

TABLE 5-28

THE METHODS OF PRICING PRACTISED BY THE FIRMS

Methods practised	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Material + machine hour rate	4	80.0	1	20.0	0	0	5	100
Material + labour hour rate	2	13.3	10	66.7	3	20.0	15	100
Material + percentage added	4	40.0	4	40.0	2	20.0	10	100
Fixed externally	0	0	2	33.3	4	66.7	6	100
'Guesstimating'	0	0	3	75.0	1	25.0	4	100
Based on a "method"	10	33.3	15	50.0	5	16.7	30	100

Correlation Data:

1. Price based on some calculation vs: guesstimate
 overall: $r = 0.15$; $p = 0.30-0.40$
 top vs bottom: $r = 0.63$; $p = <0.01$
2. Material + labour/machine hour rate vs: rest:
 overall: $r = 0.34$; $p = 0.01 - 0.05$
 top vs bottom: $r = 0.29$; $p = 0.20 - 0.30$
3. Material + labour hour rate only vs rest:
 overall: $r = 0.11$; $p = 0.40 - 0.50$
 top vs bottom: $r = 0.09$; $p = 0.70 - 0.80$
4. Material + percentage added vs rest:
 overall: $r = 0.30$; $p = 0.05 - 0.10$
 top vs bottom: $r = 0.44$; $p = <0.01$

TABLE 5-29
METHODS OF PRICING PRACTISED BY THE FIRMS
(INDIRECT SAMPLE)

Methods practised*	Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%
Follow price leader	1	50.0	1	50.0	2	100
Material + profit mark-up	3	37.5	5	62.5	8	100
Actual calculation of costs	18	81.8	4	18.2	22	100
Guesstimate	1	11.1	8	88.9	9	100
Fixed externally	12	60.0	8	40.0	20	100
Negotiated/contract pricing	4	21.1	15	78.9	19	100

Correlation Data:

1. Actual calculation of costs and "most-successful" ranking $r_t = 0.75$
2. "Guesstimate" and "least-successful" ranking $r_t = 0.74$
3. Fixed externally and "most-successful" ranking $r_t = 0.25$
4. Negotiated/Control Pricing and "least-successful" ranking $r_t = 0.65$

* A different classification of methods was used for the indirect sample owing to changes effected in the check-list.

only for the top-versus-bottom analysis, the simple and straight-forward method of 'material consumed plus percentage added', which was fairly widely used by firms in the various trades, also showed positive correlation with performance.

c) No corresponding association was obtained for the use of 'material plus labour-hour rate' only.

For the indirect sample, there was a strong positive association between calculation method and 'most-successful' grouping, and between contract pricing and 'least successful' grouping.

The above results appear to support the hypothesis that the practice of some systems in pricing of goods and services among the firms in the sample would affect their performance. However, neither Matthews nor McGuire found any such direct relationship in their respective studies. The latter even concluded that the way in which prices were set by firms did not seem to have any general effect upon the rate of growth of sales.

4. Control and Pricing:

As has been discussed in an earlier chapter, the firms in the sample practised fairly limited formal control and planning procedures. Table 5-30 provides an analysis of the firms in terms of their planning and control practices; and also according to the uses the principals made of the firms' annual accounts and financial data. It will be noted that in a number of the sub-samples, the performance distribution

TABLE 5-30

METHODS AND BASIS OF PLANNING AND CONTROL
PRACTISED BY THE FIRMS. (MULTIPLE RESPONSES)

I Techniques/Basis for control	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Output-versus-target	9	45.0	11	55.0	0	0	20	100
Monthly cash-flow	3	25.0	6	50.0	3	25.0	12	100
Size and turn round of order book	3	27.3	6	54.6	2	18.1	11	100
Monthly financial statements	3	20.0	6	40.0	6	40.0	15	100
II Use of Annual Balance sheets and/or Financial Statements as basis of planning and control								
As historical interest only	0	0	4	50.0	4	50.0	8	100
For Tax assessment and/ or to meet requirement of law	1	9.1	5	45.5	5	45.5	11	100
Indication of perform- ance	8	24.2	19	57.6	6	18.2	33	100
Basis of planning and control	8	38.1	10	47.6	3	14.3	21	100

Correlation Data:

I: 1) Output-vs-target methods:

Overall: $r = 0.61$; $p = < 0.01$
 Top vs bottom: $r = 0.75$; $p = < 0.01$

2) Monthly cash-flow method:

Overall: $r = 0.34$; $p = 0.01 - 0.05$
 Top vs bottom: $r = 0.37$; $p = 0.10 - 0.20$

3) Size and turn round of order book:

Overall: $r = 0.35$; $p = 0.01 - 0.05$
 Top vs bottom: $r = 0.16$; $p = 0.40 - 0.50$

4) Practising and method vs financial statements only:

Overall: $r = 0.57$; $p = < 0.01$
 Top vs bottom: $r = 0.69$; $p = < 0.01$

II: 1) Using data as basis of planning and control:

Overall: $r = 0.51$; $p = < 0.01$
 Top vs bottom: $r = 0.60$; $p = < 0.01$

departs from the 25:50:25 pattern which would occur in the case of an even distribution. Hence, statistical analysis to verify these apparent patterns was undertaken, and the correlation data yielded is included at the foot of the table. Based on these findings the following comment can be made:

- a) The analysis shows that firms which practised some forms of control tended to do better in the performance ranking than those which either did not adopt any method or relied entirely on the indication of the monthly financial statements of the firms.
- b) In terms of each of the methods of control, output-versus-target appeared to yield the best correlation rate, which implies that this system had, for this sample of firms, more bearing on performance than the other methods which, while yielding significant values, were of lower order.
- c) The strong correlation obtained for the effective use of the annual accounts and financial data indicates that firms which interpret these data, and use the information obtained for planning and control purposes, tended to be associated with 'most-successful' ranking, while those that did not make such positive use of these data tended to be in the lower brackets of performance ranking. Fox also showed in his study that lack of planning and control practices tended to be associated with failure.

5. Methods of Obtaining Business:

Table 5-31 summarises the various methods adopted by the firms in the sample in their attempts to obtain new business and analyses the performance distribution of each grouping. A casual scrutiny of the tabulated responses revealed little discernible relationship between strategy-types and performance, except in the use of salesmen and exhibitions or trade fairs. In both cases the sub-samples show a bias towards upper-quartile performance.

However, these marginal differences revealed no significance by statistical analysis. Even when the various active strategies were compared against the non-active (satisfaction to existing customers and reputation) the correlation value obtained was too low ($r = 0.21$) to be of any consequence.

Therefore, there was no clear indication that different marketing strategies were in any way related to the performance of the firms in the sample. Perhaps the diverse nature of the business activities of the firms in the sample, or its very limited size, served to mask any effects that the varying strategies yielded. Likewise, studies by Matthews, and by Hoad and Rosko, did not reveal any positive association between marketing strategies and the performance level of their sample firms. In the view of Matthews, the smallness of his sample would have prevented this.

TABLE 5-31

STRATEGIES RESORTED TO BY FIRMS FOR
OBTAINING NEW BUSINESS ORDERS
(MULTIPLE RESPONSES)

Methods used	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Satisfaction to existing customers	8	26.7	14	46.6	8	26.7	30	100
Reputation in the trade	7	23.3	16	53.4	7	23.3	30	100
Trade contacts	5	33.3	4	26.7	6	40.0	15	100
Advertising	2	16.7	7	58.3	3	25.0	12	100
Use of salesmen	3	33.3	5	55.6	1	11.1	9	100
Mail shots	1	20.0	3	60.0	1	20.0	5	100
Use of agents	2	40.0	2	40.0	1	20.0	5	100
Exhibitions and Fairs	3	37.5	4	50.0	1	12.5	8	100

Correlation Data:

Active Methods vs Passive Methods

Overall $r = 0.21, p = 0.10 - 0.20$

Top vs bottom $r = 0.17, p = 0.40 - 0.50$

6. Growth-Factors:

Each of the firms in the sample claimed to possess certain competitive advantage over its rivals, in terms of one, or a combination, of the key factors indicated in Table 5-32. The table reveals that at least two of the sub-samples show discernible bias towards performance in the upper-quartile grouping. Statistical analysis was undertaken to verify this: the results being shown at the foot of the table. They are as follows:

- a) Price competitiveness was found to correlate directly with the level of attainment of the firms.
- b) Similar association with performance was obtained for competitive advantage in providing service to customers.
- c) No similar clear-cut association was evident for the other factors listed.

Thus, for this sample, those firms which had competitive strengths in price and service tended to do better than those which did not have these factors, or who had only the advantage of 'quality of products'. Lawyer (1963) also tried to study, among other things, the advantage of the above and related factors to his sampled firms. In his study of 110 successful small metal-working firms in Ohio, he analysed the various competitive-advantage factors in terms of the four functional-areas of production, marketing, management and finance. He showed that, in his case, production factors outweighed all others, with quality of products topping the list. Price or competitiveness for his firms came low in his list, with only

TABLE 5-32

FACTORS FACILITATING THE GROWTH OF THE FIRMS
(MULTIPLE RESPONSES)

Factors	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Competitiveness (Price)	3	33.3	5	55.6	1	11.1	9	100
Service	7	30.4	12	52.2	4	17.4	23	100
Quality of products	6	25.0	13	54.2	5	20.8	24	100
Technical Expertise	3	25.0	6	50.0	3	25.0	12	100

Correlation Data:

Competitiveness: Overall: $r = 0.37$; $p = 0.01 - 0.05$
 Top vs bottom: $r = 0.56$; $p = 0.01 - 0.02$

Service: Overall: $r = 0.31$; $p = 0.02 - 0.05$
 Top vs bottom: $r = 0.50$; $p = 0.02 - 0.05$

Quality of Products: Overall: $r = 0.21$; $p = 0.10 - 0.20$
 Top vs bottom: $r = 0.21$; $p = 0.30 - 0.40$

2.5 per cent of the firms succeeding with this advantage factor. However, service came third, following quality, and engineering skill. Thus, Lawyer's results did not agree with the findings of the present study, although there is agreement for at least one factor, the importance of service among firms of this size.

D Some External Factors Affecting the Firms:

Apart from the internal factors, revolving around the principals, the business and the management practices; the performance of the firms was also hypothesised to be influenced by external factors in the immediate and wider environments. However, it was not practicable within the scope and scale of this study to test the validity of all the external factors through similar statistical analysis, as has been done for the internal factors. Therefore, only the following variables were analysed:

1. Location of the firm,
2. Marketing environment, and
3. External assistance.

1. Location of the Firms:

Table 5-33 shows the types of location of the firms in the sample. In this tabulation there is only a minimal difference amongst the three categories of performance, particularly between the 'most' and 'least successful' categories. Statistical analysis confirmed this lack of association, and the relevant correlation data is shown in the table.

TABLE 5-33

GEOGRAPHICAL ENVIRONMENT OF THE FIRMS

Types of Location	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Isolated - in farm/ village	1	9.1	8	72.7	2	18.2	11	100
In Industrial cluster/ estates	2	28.6	3	42.8	2	28.6	7	100
Within rural township	7	31.8	9	40.9	6	27.3	22	100

Correlation Data:

1. Isolated in farm/village: Overall: $r = 0.23$; $p = 0.10-0.20$
2. Within rural township: Overall: $r = 0.13$; $p = 0.40-0.50$
Top vs bottom: $r = 0.15$; $p = 0.50-0.60$

For this sample, therefore, the geographical location of the firms did not exhibit any significant relationship with respect to performance ranking. This tallies with the general responses of the principals when they were asked to assess the advantage or otherwise of their particular locality; the perceived advantageous and disadvantageous of their location generally being balanced.

2. Nature of Market:

Table 5-34 shows the types of markets with which the 40 firms were concerned. From this tabulation, it is evident that none of the firms in the most successful category was limited to the local market - the majority being orientated to the export market, direct and indirect. Statistical analysis, the data of which is shown in the table, yielded the following results:

- a) There was no significant correlation obtained for direct export-orientated activities and performance, but
- b) When the indirect exporting firms were included within the exporting group, a more significant association with performance was yielded. Therefore, the findings of this analysis suggest that, for this sample of firms, there was a positive relationship between exporting orientation and performance. Perhaps the benefits accrued jointly from having a wider market and also reliability of outlets, as in the case of the indirect-exporting firms.

TABLE 5-34

TYPES OF MARKETS TO WHICH
THE FIRMS WERE ORIENTATED

Markets	Upper Quartile		Median		Lower Quartile		Total	
	No.	%	No.	%	No.	%	No.	%
Local market only	0	0	3	75.0	1	25.0	4	100
National market	3	30.0	5	50.0	2	20.0	10	100
Include indirect export	3	30.0	6	60.0	1	10.00	10	100
Include direct export	4	25.0	6	37.5	6	37.5	16	100
Exporting firms	7	26.9	12	46.2	7	26.9	26	100

Correlation Data:

1. Direct Export vs local/national market:

Overall: $r = 0.02$; $p = 0.90$

Top vs bottom: $r = 0.12$; $p = 0.60-0.70$

2. Export (Direct & Indirect) vs other types:

Overall: $r = 0.21$; $p = 0.10-0.20$

Top vs bottom: $r = 0.45$; $p = 0.02-0.05$

3. External Environment:

One of the external factors which had impinged on the development of the firms in the samples was the activities of outside agencies, before and since the establishment of these firms. Table 5-35 summarises the types of institutions consulted by the indirect-sample firms. (No similar data was available for the direct sample because returns for this item were incomplete.)

In terms of consultation/assistance before the establishment of the firms, the table does not reveal any significant difference in the percentage-distribution between the most-successful and least-successful categories. However, in the second part of the table, in reference to current consultation, the most-successful firms appear to use more of these outside services than did the least successful firms. In all the sub-samples, a higher percentage of the firms involved were within the 'most-successful', suggesting that the assistance provided by these external agencies seems to have a relationship with the performance groupings of the firms in the indirect sample.

As for the direct sample, one of the external influences that had a significant bearing on the firms' development was the service provided by CoSIRA. Table 5-36 shows the distribution of the firms, belonging to the direct and indirect samples respectively, in the different performance-groups according to the types of CoSIRA services utilised by the firms. It will be seen that a number of the

TABLE 5-35

Sources of Outside Consultation/Assistance
used by the Principals before and since the
Start of the Business
Indirect Sample
(Multiple Responses)

Sources of Assistance	Before Start						Current					
	Most Successful		Least Successful		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Lawyer	8	57.1	6	42.9	14	100	12	85.7	2	14.3	14	100
Banker	13	52.0	12	48.0	25	100	18	80.8	4	19.2	22	100
Accountant	7	55.8	6	46.2	13	100	17	85.0	3	15.0	20	100
Potential Customers	11	45.8	13	54.2	24	100	8	72.7	3	27.3	11	100
Suppliers	3	42.9	4	57.1	7	100	10	90.9	1	9.1	11	100
Cosira	7	63.6	4	36.4	11	100	21	77.8	6	22.2	27	100
None	7	38.9	11	61.1	18	100	0	0	7	100	7	100

TABLE 5-36
Types of Cosira Services used by the Firms (Multiple Responses)

Type of Services	DIRECT SAMPLE				INDIRECT SAMPLE									
	Upper Quartile		Median		Lower Quartile		Total		Most Successful		Least Successful		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Advisory Services:</u>														
Book-keeping	5	23.8	13	61.9	3	14.3	21	100	12	52.1	11	47.9	23	100
Costing and Pricing	7	26.9	16	61.5	3	11.6	26	100	9	40.9	13	59.1	22	100
Work-study/Plant lay-out	1	7.7	8	61.5	4	30.8	13	100	8	53.3	7	46.7	15	100
Technical/Production	2	12.5	10	62.5	4	25.0	16	100	7	41.2	10	58.8	17	100
Marketing	3	37.5	3	37.5	2	25.0	8	100	7	70.0	3	30.0	10	100
<u>Credit Services:</u>														
Credit Services:	9	34.6	14	53.9	3	11.5	26	100	21	60.0	14	40.0	35	100
<u>Other Services:</u>														
Exhibitions	1	14.3	3	42.9	3	42.9	7	100	n.a.					
Planning Permission	6	46.2	6	46.2	1	7.6	13	100	n.a.					
Welding Instruction	1	12.5	5	62.5	2	25.0	8	100	2	33.3	4	66.7	6	100
<u>No. of Firms using the Services:</u>	10	26.3	19	50.0	9	23.7	38	100	27	54.0	23	46.0	50	100

Correlation Data: (Direct Sample)

1. Accounting and Pricing advices: Overall: $r = 0.45$; $p = < 0.01$
2. Planning Assistance: Overall: $r = 0.42$; $p = < 0.01$
3. Technical/Production advice: Top vs. bottom: $r = 0.53$; $p = 0.02 - 0.05$
Overall: $r = (0.14)$; $p = 0.30 - 0.40$
Top vs. bottom: $r = (0.20)$; $p = 0.30 - 0.40$
4. Credit Services: Overall: $r = 0.56$; $p = < 0.01$
Top vs. bottom: $r = 0.57$; $p = < 0.01$

sub-samples in the table show a bias to either the top-quartile or to the lower-quartile group of firms. Statistical analysis was undertaken, where appropriate, and the resulting correlation data is included at the foot of the table. These analyses shows the following results:

- a) There was a fairly strong association between the use of accounting services (book-keeping, costing and pricing) and performance ranking. This link, therefore, reinforces the findings discussed earlier pertaining to the relationship between pricing-method and performance of the firms.
- b) Another strong correlation was between the use of CoSIRA's services in the obtaining of planning permission from the Local Authorities.
- c) Analysis also showed that the use of the agency's credit services correlated with high performance-ranking. This strong evidence of the effects of CoSIRA's credit assistance was also fairly supported in the field during interviews, where virtually every credit recipient had underlined the crucial value of this finance in his firm's development.
- d) Surprisingly, a negative correlation was found with respect to the use of technical and work-study advice. However, the correlation was so small that no significant conclusion can be ascertained.

On the whole, therefore, there was a strong indication that the use of CoSIRA's services was associated with high

performance-ranking amongst the firms of the sample studied. To a certain extent, the findings of this study paralleled those obtained by previous researchers. Woodruff and Alexander also found that the unsuccessful firms in their sample relied less on outside management and technical assistance than did their counterparts in the successful category. In a wider analysis of outside aids, McGuire showed that, in general, firms in his sample which received government aid were growing more rapidly than those which did not. In his case, however, government assistance covered more than just credit and advice - it also included direct assistance in the form of purchases, or the giving out of contracts to such firms.

with a view to tabulating the significant variables in order of their probability rates of affinity with performance ranking of the firms in the samples. This is done in Table 5-27, which lists these variables in terms of three levels of probability, viz:

Group A: Variables and sub-variables which were found to be statistically significant at the previous level ($p < 0.01$), in both statistical analyses, i.e. overall and top-versus-bottom.

Group B: Variables and sub-variables proven significant, not at a lower level of probability, ($p < 0.01-0.05$), again in both the analyses.

Group C: Variables and sub-variables which were of significance only in one of the two analyses, i.e. either overall or top-versus-bottom and, therefore,

III Analysis of Results of the Investigation:

The results of the various tabulation and statistical analyses described above, indicated that some of the variables tested, appeared to be associated with performance ranking, while others did not reveal any significant link. However, the writer is aware of the limitation of findings due to the smallness of sub-samples covering some of the variables. Nonetheless, it was possible to obtain probable indication as to the patterns of performance of the firms in the study.

As the different variables tested returned varying correlation values, it is useful to consolidate these results with a view to tabulating the significant variables in order of their probability rates of affinity with performance ranking of the firms in the samples. This is done in Table 5-37, which lists these variables in terms of three levels of probability, viz:

- Group A: Variables and sub-variables which were found to be statistically significant at the premium level ($p = <0.01$), in both statistical analyses, i.e. overall and top-versus-bottom.
- Group B: Variables and sub-variables proven significant, but at a lower level of probability, ($p = 0.01-0.05$), again in both the analyses.
- Group C: Variables and sub-variables which were of significance only in one of the two analyses, i.e. either overall or top-versus-bottom and, therefore,

TABLE 5-37

Variables Found to be Significantly Correlated
with the Performance of the Firms.

THE MAN

Group A - Statistically significant both on the overall analysis and top-versus-bottom analysis with $p = <0.01$.

1. Training background: Apprenticeship.
2. Occupational background: technical/production field.
3. Reason for entering the business: acquisitory motive.
4. Involvement at the start: no financial cushion, but with domestic support.
5. Family participation in business: wife and/or children involved actively in the business.
6. Perceived determinant of success: knowledge of trade.
7. Perceived personal contribution to or role in the business: technical skill.
8. Attitude towards growth: positive.

Group B - Statistically significant in both analyses, but at lower level, $p = 0.01-0.05$.

1. Occupational background: had experience in the line/trade of the present business.
2. Parental background: Parents were in business too.
3. Reason for entering the business: to fulfil independence needs.
4. Current objective in respects of the business: to control a successful business.
5. Perceived determinant of success in business: technical skill.

Group C - Statistically significant in one analysis, either overall or top-versus-bottom analysis;
 $p = 0.01-0.05$

1. Parental background: crafts/technical
2. Current objective with respect to the business: acquisitory goal.

THE FIRM

Group A

1. Age of the firm: ascending order.
2. Size of firm: ascending order.
3. Scope of activities: component-producing.
4. Size of capital: 'shoe-string' operation.
5. Source of capital: initial = personal; current = government credit agencies.

Group B

1. Ownership-type: Founder owned (First-generation ownership).
2. Factors favouring growth: Price competitiveness and service to customers.

Group C

1. Prior Planning: Business was planned before established.

THE MANAGEMENT

Group A

1. Control and Planning: Output versus target method.
2. Use of balance sheet data: For planning and control purposes.

Group B

1. Wage payment system: Bonus-system.

Group C

1. Method of pricing: Some cost-base system.
2. R & D: Active (as reflected by patent ownership).

THE ENVIRONMENT

Group A

1. Use of external services (CoSIRA): Management Advice - and credit finance.

Group B

Nil

Group C

1. Market orientation: Export market (direct and indirect).

while still significant, were less consistent than the returns of those in the above two groups.

The trends suggested by the above groupings can also be reflected through tabulation analysis indicated in Table 5-38, which were based on the distribution of the variables shown in the various tables in the earlier parts of this chapter. Each of these variables was checked against the 40 firms listed in terms of their performance-ranking positions. These significant variables are arranged in columns, left to right, according to their rates of preponderance in the top-ranked firms.

Therefore, in the tabulation, it can be seen that crosses (x), representing the presence of the variable in the firms, preponderate in the top quartile. To a lesser extent these crosses are also more frequent in the top half than the lower half of the ranked-firms; the frequency becoming increasingly less towards the bottom of the ranking, with almost total absence in the bottom three firms. The preponderance of returns among the top-ranked firms becomes less evident in the right-hand columns. Thus, this analysis shows the various variables in order of their significance, and hence their association with performance ranking.

Looking through the various columns, it can be seen that most of the variables shown to favour the top-ranked firms by this analysis, correspond with those in the summary of the statistical analysis. Therefore, these variables can be taken as reflecting the characteristics of the successful

DISTRIBUTION OF SIGNIFICANT VARIABLES OVER RANKED FIRMS

(a) Variables Pertaining to the Man

Variables		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
Ranked Firms:	Firms															
Position																
1	AB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	AM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	C			X	X		X	X	X	X	X	X		X	X	
5	R		X		X	X	X	X	X	X	X	X		X	X	
6	AL	X	X	X			X	X	X		X	X	X	X	X	X
7	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
8	B	X	X		X	X	X		X	X	X		X	X	X	X
9	V	X	X			X	X	X	X	X		X	X	X	X	X
10	O	X	X	X	X	X	X				X	X	X	X	X	X
11	A		X		X	X		X	X	X	X	X	X	X	X	
12	AF		X										X			
13	J	X	X						X	X		X		X		
14	W	X	X	X		X	X	X				X				
15	AC	X	X	X			X	X	X	X	X	X	X	X	X	X
16	T	X	X			X	X	X			X	X	X	X	X	X
17	Z	X			X			X	X	X		X		X	X	X
18	AI	X	X	X	X		X	X	X	X	X			X	X	X
19	AH	X	X		X		X				X			X		
20	M	X	X				X		X	X				X	X	
21	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22	L	X	X			X	X	X				X	X	X	X	X
23	N	X					X	X	X	X		X	X	X	X	X
24	D		X		X						X	X		X	X	
25	AD		X					X	X	X	X	X		X	X	
26	G					X	X	X	X	X	X	X		X	X	
27	K		X			X	X	X	X	X		X	X		X	
28	AG	X	X	X			X	X	X			X		X		
29	AE	X	X				X		X	X		X				X
30	H							X	X	X	X		X	X		
31	I	X			X			X	X	X	X		X	X		
32	F					X	X	X	X	X	X	X	X	X	X	X
33	Y		X		X		X						X	X	X	X
34	P		X				X	X				X	X	X	X	
35	AJ								X	X						
36	AP	X	X	X	X	X							X	X		
37	AA		X				X				X			X	X	
38	U			X								X			X	
39	Q													X		X

(c) Variables Pertaining to the Management Practice and The Environment

Firms Rank	Variables Firms	MANAGEMENT PRACTICE								THE ENVIRONMENT			
		I	II	III	IV	V	VI	VII	VIII	I	II	III	
1	AB	X	X	X	X	X	X					X	X
2	AM		X	X	X	X	X	XX	X	X	X	X	X
3	E	X	X		X	X	X			X	X	X	X
4	C	X	X	X	X	X				X	X	X	X
5	R	X	X	X	X	X	X	XX	X	X	X	X	X
6	AL	X	X	X	X	X	X	XX	X	X	X	X	X
7	X	X	X	X	X					X	X	X	X
8	B	X	X	X	X	X	X		X	X		X	X
9	V	X	X		X		X			X		X	X
10	O	X	X	X	X		X	XX		X		X	X
11	A		X	X	X				X	X		X	X
12	AF	X	X	X	X		X			X		X	X
13	J						X				X	X	X
14	W	X	X	X	X					X			
15	AC	X	X	X	X		X			X	X	X	X
16	T	X	X							X	X		
17	Z		X		X	X			X	X		X	X
18	AI	X	X	X	X					X		X	X
19	AH	X	X	X	X	X			X	X	X	X	X
20	M		X		X			X			X	X	X
21	S	X	X		X		X			X	X		
22	L		X			X		XX	X		X	X	X
23	N		X				X	XX	X		X	X	X
24	D			X	X	X			X	X	X	X	X
25	AD	X	X	X	X				X	X	X	X	X
26	G	X	X	X	X	X	X		X	X	X	X	X
27	K				X						X		
28	AG	X	X		X								X
29	AE					X	X			X		X	X
30	H	X	X	X	X			XX	X	X		X	X
31	I		X	X	X	X			X		X	X	X
32	F		X		X	X	X			X	X	X	X
33	Y			X			X		X		X		
34	P						X				X		
35	AJ					X	X		X		X	X	X
36	AP		X		X							X	X
37	AA		X	X	X	X		X	X	X			
38	U					X		X	X		X	X	X
39	Q		X		X	X	X		X				X
40	AK								X	X			X

KEY TO TABLE 5-38

Appendix VIII (a): Variables pertaining to the Man:

- I Parental background: business or technical.
- II Perceived personal contribution to business: hardwork.
- III Family involvement: wife and/or children participating in business.
- IV Reason for starting business: acquisitory motive.
- V Perceived determinant of success in business: knowledge of trade.
- VI Perceived personal role in business: technical skill.
- VII Training background: apprenticeship.
- VIII Initial involvement in business: no financial cushion to fall back upon, but with domestic support.
- IX Initial involvement in business: no financial cushion at all.
- X Attitude towards growth: Positive.
- XI Occupational background: technical/production.
- XII Perceived determinant of success in business: technical skill.
- XIII Objective in respects of business: aggrandizement.
- XIV Reason for starting business: Independence needs.

Appendix VIII (b): Variables pertaining to the Firm:

- I Age of firm: 10 years old or younger.
- II Size of initial capital: £1000-00 or less.
- III Principal activities: components-producing.
- IV Growth Factor of firm: Price/competitiveness.
- V Prior planning before establishment of firm.
- VI Ownership-type of firms: founder-owned - first generation-ownership.

VII Growth factor of firm: Service to customers.

VIII Source of initial finance: personal sources.

Appendix VIII (c): Variables pertaining to the Management Practice and the Environment.

Management Practice:

I Control factor: Output versus target.

II Control method versus financial statements only.

III Use of Annual Balance Sheets as basis of planning and control.

IV Pricing method: calculation method.

V R & D activities: Patent ownership.

VI Wage-payment: bonus system.

VIII Specialist Staff on payroll.

The Environment:

I Use of CoSIRA credit services.

II Market orientation: export, direct and indirect.

III Use of CoSIRA Management Advice.

principals and firms in the sample, as well as the factors affecting the performance of these firms.

However, for the purpose of verifying the validity of the hypotheses of this study, only those variables included in Group A above are being used.

The Hypotheses:

The main hypothesis of this study is that the structure, roles and responsibilities of the principals in rural small firms in the United States can now be related to the performance of these firms. The sub-hypotheses enunciated in this study are: (1) to determine the extent to which they are related to the performance of the firms.

The main hypothesis postulated in this study is that the performance of the sampled firms is related to the following attributes (including: (1) the principals' personal attributes, (2) the firms' management practices, and (3) the firms' interaction with the environment).

The results of the various tabulation and statistical tests conducted at the end of the preceding chapter have provided sufficient evidence to support the main hypothesis. This was especially clear-cut for the first sub-hypothesis, i.e., the principals' personal attributes. The analysis has also revealed a fourth

PART III

CHAPTER SIX

CONCLUSIONS

I Evaluation of Results in Relation to the Hypotheses:

The elucidation of the structure, roles and especially the performance of the rural small firms in the sample has yielded evidences which can now be related to the main hypothesis and sub-hypotheses enunciated in the opening chapter, to ascertain the extent to which they have been verified by the study.

A The Main Hypothesis:

To recapitulate, the main hypothesis postulated that the development and performance of the sampled firms was related to three factors, viz:

1. The principals' personal attributes (including backgrounds and motivation),
2. The firms' policies and management practices, and
3. The principals' and firms' interaction with the environment.

The results of the various tabulation and statistical analyses, which were consolidated at the end of the preceding chapter, indeed produced sufficient evidence to support the above postulation. This was especially clear-cut for the first factor above, i.e. the principals' personal attributes. Apart from this, the analysis has also revealed a fourth

dimension of the business which was equally significant in terms of its association with performance ranking: this refers to the attributes and characteristics of the firms ~~itself~~, themselves.

B The Sub-hypotheses:

Most of the sub-hypotheses postulated, were in effect statements representing some of the variables within the above four facets of the business, and therefore seemed to support the main hypothesis. Based on the results of the various analyses, four trends were observed with respect to the sub-hypotheses:

1. Sub-hypotheses which were fully confirmed:
 - a) Sub-hypothesis 1: re management attitude and practices.
 - b) Sub-hypothesis 2: re age of the firm,
 - c) Sub-hypothesis 6: re personal commitment and involvement in business, and
 - d) Sub-hypothesis 7: re motive for entering business.
2. Those which were partially confirmed:
 - a) Confirmed in parts only:
 - i) Sub-hypothesis 8: re family circumstances and occupational background.
 - ii) Sub-hypothesis 9: re external assistance.
 - b) Confirmed at lower level of confidence (0.01-0.05):
 - i) Sub-hypothesis 5: re first generation firms.

3. Those which were not confirmed or which obtained opposite results:
 - a) Hypothesis 3: re size of firms (opposite results).
 - b) Hypothesis 4: re family-owned firms (not confirmed).
4. Additional factors not hypothesised:
 - a) Activities of the firms,
 - b) Family participation in business, and
 - c) Size and sources of capital.

Therefore, taking the results as a whole, the study has succeeded in upholding most of the sub-hypotheses, either partially or wholly.

However, must not be viewed as to indicate that the firm in a singular and separate fashion, but rather as interacting pressures, each affecting the other, and not necessarily to affect the performance of these firms, however, the interaction can be represented in the diagram shown in Figure I.

The following comments with respect to the key factors within each of the above facets serve to highlight their probable contribution affecting the performance of the firm.

1. The Firm

The study has adequately indicated that the firm's structure and management are crucial in determining both the structure and level of the firm's attainment, and that these factors are significant to performance and crucial, viz.

II Determinants of Performance:

Based on the results of the analyses above, therefore, it can be inferred with a fair degree of confidence that the performance of the rural small firms in the sample was related to four groups of factors revolving round four main facets of the business, viz.

- A. The Man,
- B. The Firm,
- C. The Management, and
- D. The Environment.

Each of these factors, however, must not be viewed as to impinge upon the firms in a singular and separate fashion, but rather as interacting pressures, each affecting the other, and all combining to affect the performance of these firms. Schematically the interaction can be represented in the diagram shown in Figure I.

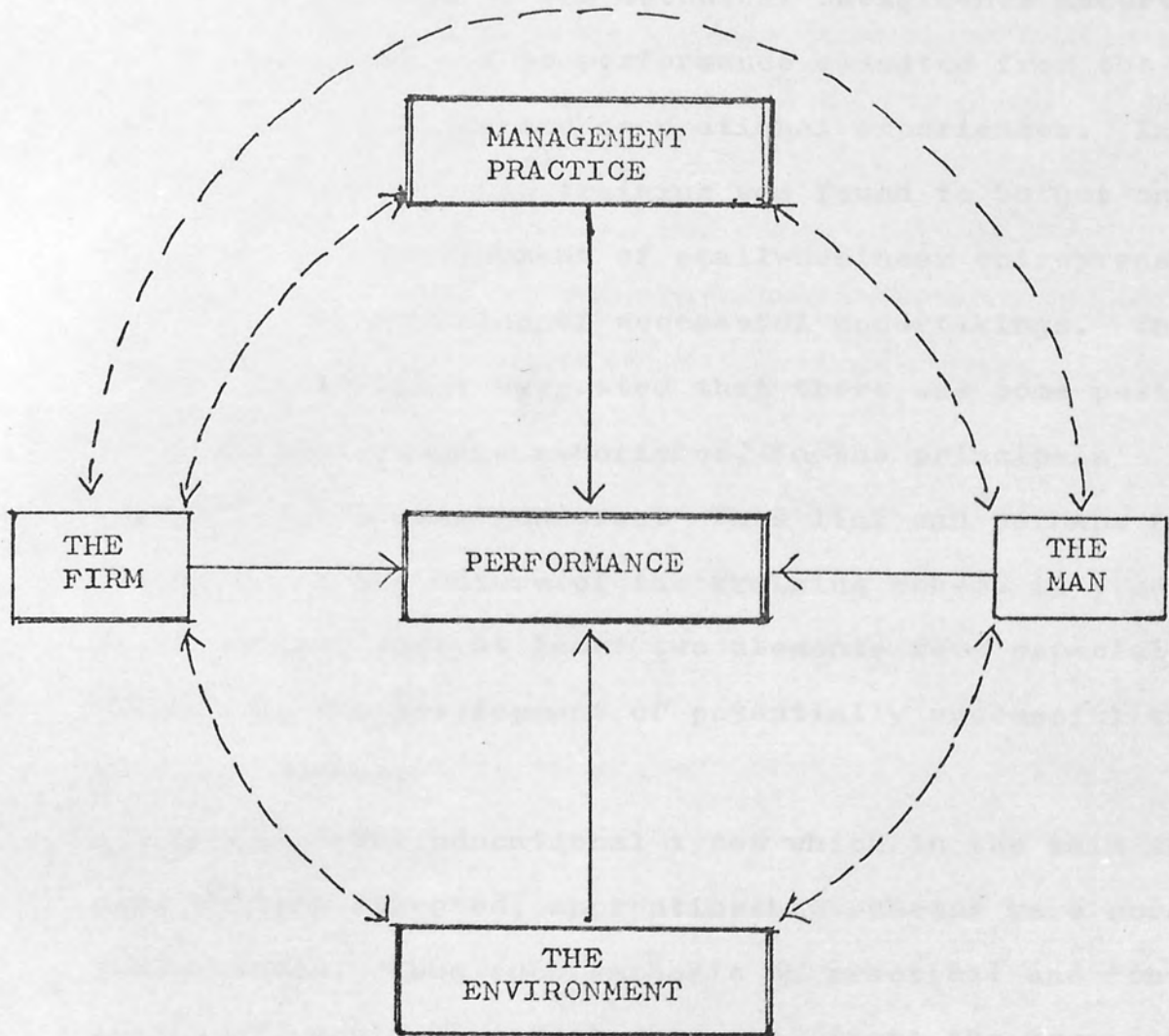
The following comments with respect to the key factors within each of the above facets serve to highlight their probable manifestation affecting the performance of the firms.

A The Man:

The study has adequately indicated that the man who initiated and managed the business, was instrumental in determining both the structure of his firm as well as the level of the firm's attainment. Among the factors shown to be significant to performance ranking, two were considered as crucial, viz.

FIGURE I

SCHEMATIC REPRESENTATION OF THE FOUR FACETS OF
THE BUSINESS IN RELATION TO PERFORMANCE.



1. The man's technical backgrounds, and
2. The man's attitudes, perception and motivation, both at the start and subsequent to the establishment of the firm.

1. The technical background:

Two aspects of the technical backgrounds ascertained to be of consequence to performance emanated from the principals' training and occupational experiences. In the former, apprenticeship training was found to be not only favouring the development of small-business entrepreneurs, but also the nurturing of successful undertakings. The latter relationship suggested that there was some positive value in the training experience, in the principals' subsequent business ventures. This link can perhaps be justified if the nature of the training scheme is studied. It is evident that at least two elements were especially germane to the development of potentially successful small-business owners:

- a) Unlike other educational types which in the main they were subject-oriented, apprenticeship schemes were normally job-oriented. Thus such emphasis on practical and "on-the-job learning", would be expected to facilitate the acquisition of skills of the trades, (which has been already shown to provide an effective base of business ventures). Thus, for example, through such indentured training, an apprentice who has acquired 'tooling' or 'grinding' skills would start a business revolving round this activity, initially on sub-contract

assignments. From this beginning the firm developed into more versatile and wider activities which enabled the business to expand.

b) Apprenticeship training provided actual business environment, which is generally remote in other types of education. Thus, trainees were trained in situations where they were directly exposed and, at time, involved in more than just the production activities of the firms, i.e. in the business aspects of the firms. Cases where the apprentice had acquired the rudiments of business skills and the motivation for entering such undertakings, while under training, have been illustrated elsewhere in this report.

The second aspect of the technical background pertains to the occupational experience of the principals. Thus, those principals who had had technical employment, preferably in the trade of the present business, seemed to have performed better than those who had not. The link between such experience and subsequent performance is perhaps more readily explained in that the experience in the technical fields enabled the principals to acquire the skills of production activities and product design. As many of the entrepreneurs were seen to have started basically production-orientated ventures, rather than market-orientated, the experience obtained previously would indeed be useful.

The link between success and experience in the same, or a similar, trade was revealed as significant in the

analysis. At the very least, previously being in a similar trade would have enhanced their accumulation of 'the tricks of the trade'. For example, obtaining and maintaining valuable trade contacts, knowledge of distribution strategies, and acquaintance with the technological development in the field. All of these would be of value to their subsequent business undertakings.

2. Perception, Values and Attitudes:

Another cluster of variables which were found to be positively correlated with the performance ranking of the firms pertains to the perception, values and attitudes of the principals concerned. The links suggested by the various analyses imply that the principals' affective responses have a possible bearing on their performance. Three facets of these responses were found to be significant, viz.

- a) The initial motive for entering the business,
 - b) Perception of personal contribution and pre-requisites of success in business, and
 - c) Attitude towards growth.
- a) Initial motives:

The positive link between acquisitory motive and success implies that the manifest awareness of 'wanting to make money' in the first instance seemed to reflect the presence of ambition and zeal for aggrandizement, and this happens to be in keeping with profit-maximization. As business success is in many ways indicated by 'financial returns' on investment, an expressed objective with respect

to this goal could therefore be expected to stimulate the principal towards higher performance.

b) Perceived contribution and success factors:

The link between the principals' perception of their main contribution to the business, and what they regarded as the pre-requisites of business success, on the one hand, and performance ranking on the other, is more difficult to explain. The only probable effect of such perception could be hypothesised in terms of the benefits of being aware of these factors ('technical skills' and 'knowledge of trade' respectively) which have been shown in another analysis to have facilitated performance. In consequence, it is likely that awareness of these factors could influence the principals to use them in cases where they had them, or to acquire them - in each case by 'triggering-off' the appropriate action favourable to the firms.

c) Motivation for Growth:

It was found that the motivation of the principals towards growth itself was highly correlated with the performance ranking of the firms. Thus, the findings implied that the growing firms grew and performed better because the men controlling them would be content with nothing less, and the restricted growth and less successful firms were largely so because their owners had neither the willingness nor drive, nor the ability, to make it otherwise.

This conscious effort of the principals and management to stimulate or hinder growth, or to be apathetic to growth,

seemed to be most significant in affecting the expansion of the firms. McGuire, referring to this attitude factor in his study, states, "More important than environment or internal organisational forces seemed to be the abilities and attitudes of management towards growth, and the efforts which were undertaken by management to increase the rate at which growth occurred." Thus for long-term sustained expansion, the principal and management had to undertake conscious and positive actions towards growth.

The importance of this positive attitude in enhancing performance has also been underlined by other studies. Wynne-Roberts (1969) emphasised that the most important single factor in determining whether a small firm was to grow or to remain static, seemed to be the character and personality of the owner-manager. If the owner was really determined that his company should grow then, other things being equal, grow it would - even in circumstances which might defeat other men of equal managerial ability. He concluded, 'Indeed it is probably true to say that entrepreneurial ability is more important for growth up to a certain size than being a really good manager. Most important, however, is the owner's ambition. This, in turn, conditions the image which the owner has of his business'.

On the other hand, Mackintosh postulated that the growth of firms was partly determined by what he referred to as 'self-imposed' conditions. In this respect, therefore, restricted growth has been the result of conditions imposed

by the firm upon itself often by more or less deliberate decisions. It is here that the attitude of the men who own and manage the firms becomes vital. For example, their negativity towards outside finance and advice, and their reluctance for growth itself, place restrictions on the forms and extent of achievement of the firms.

In the present study, the high correlation between the attitude towards growth and performance-ranking suggested that the firms in which something positive was accomplished in the direction of expansion did actually continue to grow and succeed. For example, three factors seemed to reflect the principals' motivation for growth:

- i) Finance Programme: It was shown that the respondents who were positive towards growth were more active in their finance programme, especially with regards to the use of external sources. Thus, out of 25 firms which used external finances, all but seven were firms which were positive towards growth.
- ii) Use of External Services: The majority of the growth-orientated firms were also those which utilised more than three CoSIRA services. This implies that the firms, having owners who were consciously wanting growth, were more positive in the use of outside stimulants to growth.
- iii) Planning and Control Practices: It was observed that a majority of the growth-oriented firms were more receptive towards modern management techniques. Of the 22 growth-oriented firms, for example, all but two of them practised

some form of production and financial control and, again, all but two utilised the 'balance-sheet data' as one of their bases for planning and control. In terms of pricing method, only one firm in this growth-oriented group relied on 'guesstimating' or 'external standards'.

This positive attitude towards growth seemed to bear out the implication of the Thomas Theorem quoted by Merton (1964). The self-fulfilling prophecy as it was called, states that 'If men define situations as real, they are real in their consequences'. This statement implies that men respond not only to the objective features of a situation but also (and at times primarily) to the meaning the situation has for them. And once they have assigned some meaning to the situation, the consequences of that behaviour is determined by the ascribed meaning. Therefore, the definition of the situation becomes an integral part of the action and thus affects subsequent developments. In the context of the firms in the sample, the goal-definition or objective-definition perceived and manifested by the principals becomes instrumental in triggering off all other efforts which correspond with the type and level of goal or objective so defined.

Looked at another way, these growth-oriented firms were those whose owners were positively wanting success and growth. Goldman (1970) suggests that the 'wanting' element that triggers human action determines the direction and intensity of that action. In this context of our firms, therefore, the greater the wanting of success by the owners,

the better the quality of their actions and the more, all else being equal, their actions were oriented towards that goal. McClelland (1958), however, would explain growth-oriented owners as having high achievement motivation who would score well on his Achievement tests.

Whatever the explanation, it seems probable that the motivation and attitude of the owners of the firms were instrumental in triggering off various actions that would manifest themselves in the type and level of development that the firms could attain. To this extent, therefore, it is reasonable to postulate that non-growth-oriented firms would not be amenable to changes in their practices and methods, unless and until their attitude and values were modified. In consultancy programmes, therefore, it is pertinent to heighten the expectancy and motivation of the owners towards the consequences of any injection of new methods, if their acceptance and subsequent implementation, are to be achieved. McClelland (1969) suggested that it was possible to induce changes among low achievers through systematic enhancement of their achievement motivation. And in this respect, he has carried out empirical studies among the small-businessmen in India.

B. The Firm:

Several variables tested, pertaining to the characteristics of the firms in the samples, were found to be associated with their level of attainment. These ~~results~~ ^{results}

implied that the presence, or absence, of certain features in these firms has some bearing on their ability to do well in terms of growth and profitability. Three aspects of the firms were found to be most significant:

- 1) the size,
 - 2) the age, and
 - 3) the activities.
- 1) Size:

The role of size and its relation to growth and profitability has been discussed earlier. This link implies that it was relatively easier for the smaller small firms in the sample to improve their performance over a period, compared to their larger counterparts. Indeed, because many of these firms were of the 'one-man-band' type, and the practice of modern management techniques was rather limited, it would seem probable that it was simpler for the owner-managers to control and manage the firms when their establishments were small and within the scope of one-man management, than it would be for the larger small firms where the need for co-ordination and organisation, and delegation, became more critical.

As has been discussed earlier, one of the weaknesses observed in the sampled firms was the principals' reluctance to delegate and operate control practices. It was likely that these policies had affected the firms in their growth through such shortcomings. Thus, size itself affects performance - more in terms of what the one-man management

could and could not do at the different size-levels, in effecting and coping with growth.

Yet, apart from the above possible explanation, a more important consideration for the implication of size on performance refers to the break-even points and labour/capital input ratios of the firms in the different size-bands. In this respect, Bolton has found that the higher return on capital in smaller units probably reflected higher labour/capital input ratio and must not be taken to suggest greater efficiency. He states, ".... the apparently inferior return of small firms in terms of labour employed is attributable (to an unknown extent) to the smaller amount of capital used per worker while the apparently superior return on capital by small firms is attributable (again to an unknown extent) to the greater amount of labour employed per unit of capital. What this means is that the proportionate contribution of labour alone to output of small firms is greater than the contribution of capital alone while the reverse is true for large firms" (47).

2) Age of firms:

The relationship between performance and age is another facet of the firms that was revealed in the study. To a certain extent this was expected. After all, the definition suggests that younger small firms should, on average, exhibit faster growth than older small firms. For if a business continues to grow fast after the youthful stage, it must cease to be a small business. On the contrary, if it goes

on being small into its prime and middle age it must have stopped fast growth. In another respect, perhaps, the link also reflects the industry in which the small firms operated: some of the younger firms in the samples were in new and fast-growing industries, (directly or indirectly by virtue of their satellite function). Therefore, in this instance, their attainment could have been simply a reflection of the dynamism of the market and technologies associated with these new industries.

However, apart from the above arguments of logic and economics, other factors must also have favoured the younger small firms. Table 6-1 shows the distribution of some of the key variables in the two age-classes designated as young and old. One thing is evident in the analysis: the younger firms were more keen on growth, as reflected by the higher proportion of these firms which had principals with positive attitudes towards growth. There was also a greater proportion of the younger firms with younger owner-managers (45 years old and less) and less of them who were older (over 45 years old). It is therefore reasonable to expect that the strong managerial ambition, enhanced further by the relative vigour of youth of their principals, would render some effective driving force for the firms' development.

On the other hand, the relatively predominance of older (over 45 years old) principals among the older firms, and who were less ambitious for growth, would have had some decelerating effect on these firms. Their relatively weaker

TABLE 6-1

AGE-GROUPS OF FIRMS IN RELATION TO SOME VARIABLES

Variables	Younger 10 y.o. and less	Older Firms			Total
		11-20	Over 20	Total	
	N=20	N=11	N=9	N=20	N=40
Performance:					
Successful	9	0	1	1	10
Average	8	8	4	12	20
Non-successful	3	3	4	7	10
Age of Principals:					
45 y.o. and less	13	5	3	8	21
Over 45	7	6	6	12	19
Attitude to growth:					
Positive	14	5	3	8	22
Passive	3	1	1	2	5
Negative	3	5	5	10	13
Ownership-types:					
Founder owned	20	5	4	9	29

enthusiasm for growth could have emanated from their being at the reins of business for over ten years - surviving the grind and concentration of the formative years which were generally both intense and prolonged. It was not surprising, therefore, that some of these elderly founders who had been at the helm for over a decade, displayed signs of staleness and often enthused more about past achievements than future plans.

3) The Activities of the Firms:

As indicated in the preceding chapter, there was a positive association between the component-producing activities of the sampled firms and their level of performance. This link, implying facilitative effects of these activities, could be attributed to the following factors:

- a) Component-producing activities enabled the firms to assume a satellite function to other, invariably larger, firms, and the relationship so forged, in certain respects, would provide a fair degree of reliability of markets for the products of these satellite firms.
- b) The intensity of competition faced by such firms would be expected to be less inhibitive in that it would come mostly from other small firms, rather than from larger firms which could more effectively restrict the former's growth. On the other hand, the other types of firms, especially those producing machine equipment, would invariably have to face competition from large firms, better equipped for undertaking their marketing activities.

c) Because most of the successful firms also had technically-experienced principals, with apprenticeship training, their concern for component-producing activities would be more likely to utilise most of the principals' skills and knowledge. The satellite roles that these activities generated made their lack of marketing experience of less consequence to their performance, as in these activities such skills were less importune than, for example, in firms primarily engaged in marketeering.

d) The structural strengths of the small businesses (discussed in an earlier chapter, particularly in reference to flexibility, adaptability and versatility) were more likely to be manifested in firms which were engaged in sub-contract orders, custom-made products, and producing 'one-offs', such as occurs in satellite firms. Thus, all things being equal, small firms which could exploit their strengths were more likely to fare better than those firms where these qualities might be inherent, but were not dominant in relation to their marketing efforts and the overcoming of competition.

C The Management:

The structural analysis in Chapter III reveals among other things, that the management practice of the sampled firms was relatively simple, informal and personalised, centering around the principals. Nonetheless, it was evident that firms which systematised these practices, and especially those which adopted some forms of modern techniques in costing, pricing, planning and control, performed better than those which did not.

The implied value of control and planning techniques emanated from the benefits often attributable to such practices - viz. they permitted the owner-managers of the business, on the one hand, to utilise their resources more effectively and, on the other, they allowed them to take advantage of the opportunities, and overcome the threats, which lay ahead. The fact that the small businesses, as shown earlier, are often faced with financial restrictions, which could have inhibitive effects on their ability to spread risks, makes the role of both planning and control practices useful - if not essential - to these firms.

While other management factors were also found to be significant, their correlation value was relatively lower than those discussed above. Nonetheless, the impression gained in the study was that, for the small firms, it was often the adoption of simple systems that was important to their development rather than resort to the complex and sophisticated techniques used by the larger firms.

D The Environment:

The most significant result obtained in the analysis was the impact of CoSIRA services on the performance ranking of the firms in the samples. Two types of services were especially critical:

- 1) credit assistance, and
- 2) planning Permission assistance.

1) Credit Assistance:

The correlation found in the use of CoSIRA credit services, implies that the use of such external finances had some beneficial effects on these firms. It is postulated that these benefits resulted from the following considerations:

- a) The financial assistance provided could have alleviated the financial problems already shown to be prevalent among these firms, or in some cases it might have facilitated their expansion programmes.
- b) The supporting counselling services that were associated with every loan granted, in addition to the normal supervision of effective utilisation of the funds borrowed, must also have played their part. Thus, in almost every case, the borrower was also provided with management advice, and this no doubt had contributed to the overall performance ranking of these firms.
- c) The fact that CoSIRA's extension of credit normally favoured the firms which showed greater potential, perhaps also had a bearing on the ranking position. (However, even among those firms which received loans (Table 5-36), the greater number of them attained higher ranking).

2) Planning Permission:

The association between the use of CoSIRA's assistance in obtaining Planning Permission on behalf of the firms, and performance, however, is difficult to explain, especially to differentiate between cause and effect. It was likely that

the fact that these firms solicited assistance in this field was a reflection of their growth and success. It was therefore postulated that firms which attained a fair degree of success were those that needed new or additional premises, and hence required Planning Permission. Nonetheless, it is also likely that Planning Permission, being a manifestation of growth efforts would, when translated into increased plant capacity and work-area, affects the subsequent development of the firms concerned.

It is the non-economic functions above, which have rarely been discussed in the literature, that must now be projected as further justification for expanding and ensuring the healthy development of the small-firm sector in the economy. These reasons become extremely relevant in the light of current realization, in many quarters, of the social consequences of over-concentration and over-centralization of industry on the one hand, and of the over-emphasis on mass-production and economies of scale on the other.

The analysis of the structure and organization of the sampled firms has enhanced our understanding of their nature. Thus, we have seen the types of background and circumstances

III The Functions and Structure of the Rural Small Firms:

One of the key facets also highlighted by this study refers to the multifarious roles of the rural small firms. In this respect, it has been shown that the firms not only fulfilled the expected economic functions, supplementing and complementing the efforts of the large-firm sector, but also fulfilled other functions of immense value to man and his society. The psychological, sociological and political functions seen to be rendered by the firms in the sample have, in many respects, contributed to what Child (1969) refers to as a better 'quality of experience' for the men involved and for the total community in general. The developmental functions attributed to these firms have been seen to contribute to the process of maintaining the dynamism of the economy.

It is the non-economic functions above, which have rarely been discussed in the literature, that must now be projected as further justification for expanding and ensuring the healthy development of the small-firm sector in the economy. These reasons become extremely relevant in the light of current realisation, in many quarters, of the social consequences of over-concentration and over-centralisation of industry on the one hand, and of the over-emphasis on mass-production and economies of scale on the other.

The analysis of the structure and organisation of the sampled firms has enhanced our understanding of their nature. Thus, we have seen the types of background and circumstances

that have contributed to the development of the entrepreneurs of these rural small-firms. For example, it was found that a fairly high proportion of the principals has had some military experience, implying the possibility of effects of such experience on entrepreneurial development. As most of these principals, however, were in the service in the inter-war years, and military service in peace time absorbs far fewer people, it is anticipated that a higher proportion of new small-firm entrepreneurs will be without any military background or experience.

Apprenticeship training seems to be the other alternate source of small-firm entrepreneurs - at least this type of trade-skill training was found to have produced a relatively higher proportion of the entrepreneurs in the study compared with other types of education or training systems. Thus, perhaps it is pertinent to consider the consolidation and acceleration of the apprenticeship system of this country. By the same token, perhaps it is also worthwhile for developing countries, such as Malaysia, which are anxious to develop their entrepreneurial groups, to consider using the apprenticeship scheme or such indentured-type training as part of their action programme.

On the other hand, if the relatively low contribution of tertiary education in the development of the entrepreneurs among the firms studied is to be taken as another lesson from the study, especially if this evidence is confirmed by a wider and more thorough study, for the whole country, then

perhaps it would be useful to review and reassess the roles of this type of education in entrepreneurial training and development for the small-firms. Perhaps it is relevant also to state here that the Small Business Administration of the U.S.A. has reported that an increasing number of educational institutions there have lately incorporated study curriculum orientated towards meeting this requirement.

Apart from understanding the types of men who founded the firms in the samples, the study of the firms' structure has also improved our knowledge of their early years of development, their capitalisation and financial structure, and their accounting and manpower organisation. The discussion of the management structure has emphasised the characteristically limited use of modern managerial practices among the firms. We have seen that this latter situation was the result of the background, values and attitudes of the principals, as well as the nature of the firms in this sector.

The analysis of the strengths of the rural small-firms has revealed some of the characteristics which such firms could and must exploit to enhance their competitive advantage. On the other hand, the elucidation of their weaknesses seemed to remind us that, while these firms possessed positive competitive qualities, they still had to surmount various handicaps; the chief being financial. The need for adequate finance, particularly to tide over working-capital difficulties and to effect expansion programmes has been underlined by many respondents. Although the performance analysis has shown

that firms which started with shoe-string budgets could attain successful ranking, yet this did not imply that the firms could continue to grow effectively and efficiently, especially to exploit their maximum potential, without outside financial assistance. Several other studies, e.g. Bates, Mackintosh and Bolton, have underlined this financial handicap.

However, as there was no comparable study involving rural-sector small-firms only, it was not possible to effect comparison of findings pertaining to firms sampled from a similar population. The detailed comparison of each variable with findings from the earlier studies is tabulated in Appendix VIII.

From this comparative tabulation, it is apparent that, while some of the results of the present investigation confirm those of earlier studies, others did not, a few even showing contradictory results. However, any comparison between these results must take into consideration the possible influence that the different population, samples and methodology of the various studies, had on the findings. Similarly, any generalization of the findings of the present study for the wider population of the rural small-firms must also take cognizance of the limitation of the study, especially in terms of the size of the sample and also the difficulty experienced in exercising freedom of random selection of CoSRA firms and then obtaining the co-operation of a more representative sample firms. It must also be emphasized that,

IV Generalisation and Assessment of Research Findings:

A The Findings of this Study in Relation to Earlier Investigations:

In the analysis of the performance of the sampled firms discussed in the preceding chapter, references were made, wherever applicable and possible, to the few earlier studies on the same or similar aspects of the small-firms. However, as there was no comparable study involving rural-sector small-firms only, it was not possible to effect comparison of findings pertaining to firms sampled from a similar population. The detailed comparison of each variable with findings from the earlier studies is tabulated in Appendix VIII.

From this comparative tabulation, it is apparent that, while some of the results of the present investigation confirm those of earlier studies, others did not; a few even showing contradictory results. However, any comparison between these results must take into consideration the possible influence that the different population, samples and methodology of the various studies, had on the findings. Similarly, any generalisation of the findings of the present study for the wider population of the rural small-firms must also take cognizance of the limitation of the study, especially in terms of the size of the sample and also the difficulty experienced in exercising freedom of random selection of CoSIRA firms and then obtaining the co-operation of a more representative sample firms. It must also be emphasised that,

while the selection of the sampled firms was felt to be a fair reflection of CoSIRA firms, the study does not claim that CoSIRA firms are representative of all rural small-firms. Despite these limitations, perhaps the results of the investigation which agree with other findings reported in the literature, can be taken with less reservation than the others.

Generally, the study has been able to yield some object lessons and information on the structure and function of the rural small firms, and the role and contribution of CoSIRA services. It has also suggested some possible factors that seemed to influence the development and performance of firms such as those covered in the study. Therefore, the study can at least serve as a starting point for more extensive and intensive studies, with a view to yielding data which could facilitate the formulation of policies and strategies to help the rural small-firm sector. Furthermore, the experience gained in this study, and the data accumulated, will serve the basis for a projected study that the writer's employer has planned for the small-firm sector in Malaysia. (Meanwhile, the present research has yielded at least one major report on 'Business Extension Service' completed by the writer in 1972, submitted and subsequently accepted for adoption by MARA).

B Methodology:

The study was developed with the methodology discussed in Chapter II. While on the whole, the various techniques

have yielded adequate data for analysis, in hind-sight there are various possible improvements that could be made if the investigation were to be repeated, viz:

1. Sample Selection:

- a) In order to enable wider application and generalisation of findings, the sample of firms for such a study as this should not be obtained through CoSIRA, but rather through independent sources, e.g. Kelly's Directory, Moodies Index Cards etc. (However, it must be noted that the present study was designed to be limited to CoSIRA firms in the first place, by virtue of the attachment to the agency).
- b) In order to enable a more clear-cut analysis of the value of CoSIRA services, a comparative sample of non-CoSIRA firms should also be studied, as a control group to ascertain the differing consequences of receiving or not receiving the agency's assistance.
- c) For a study of the effectiveness of the services provided by the agency a cost-benefit ^{analysis} ~~analysis~~ should also be worthwhile.
- d) A more rigorous sample selection, through a more scientific technique, would be preferred, (although such a method would prove to be difficult to effect if freedom of selection were curtailed by limitation of access, as imposed by the Authority responsible for the firms).
- e) In order to facilitate analysis and standardise firms for greater validity, it is considered that the firms should be selected from those within similar age-range, as was done by Matthews.

f) In terms of size-ranges of firms, it would be preferable either to limit firms within a specific size-range or choose sufficient number of firms from different size-ranges to permit of comparative analyses.

2. The Interview and Questionnaires:

In order to obtain more firms for inclusion in such a study as the present, the depth interview could be replaced by shorter sessions using a brief check-list as shown in Appendix II. Undoubtedly there would be limitation in this, but it would be mid-way between postal surveys and the depth interview which, for practical reasons, limits the number of firms willing to participate.

2. The Analysis:

A bigger sample, especially if firms were of similar age-range and results were subjected to a more powerful analysis (e.g. regression analysis) would yield much more reliable results.

4. The Grading of Responses:

Analysis could be facilitated, and the results be more clear-cut, if the responses of the subjects could be graded. As it was, although the check-list used was of the 'multiple-answers' type, owing to the impossibility of grading for most items, the statistical computation was conducted more on the lines suitable for the 'dichotomous-answer' type of response.

V Recommendations for Further Research:

This study, while illuminating various facets of the rural small-firm sector, has also exposed the need for wider studies in this area, to fill the current void. The following are some of the possible areas shown to need further investigation:

1. The important role of the attitude and personality of the principals has been implied in this study, but there is a need for a psychological depth-study of these attributes of the owner-managers, as determinants of growth and success of rural small-firms.
2. The present study focussed on the principals of the firms. No investigation of the suppliers, creditors and customers of these firms was conducted within the scope of the study. It would be desirable, therefore, to conduct more comprehensive surveys including these sectors for the purpose of obtaining an integrated evaluation of the performance of these firms.
3. Since growth was taken only as the rate of change between 1965 and 1970 the project did not actually study the firms over a long period of time. A diachronic study patterned on Mayer and Goldstein for the rural small-firm may perhaps throw clearer light on the development of these firms.
4. The social set-up of the small firms in the rural environment was only discussed briefly. The location and the relationship between these firms, and the local community and its attendant features, provide yet other facets for further studies.

5. Finally, of course, providing a large enough sample were investigated, the various findings from these studies could be the basis for further research to ascertain in depth the specific import of some of the more important variables as evinced by this study.

Followed by a series of governmental and administrative developments in this field, including the establishment of a special division concerned with the development of this sector, within the Department of Trade and Industry, and headed by a Minister.

Although the small firms have seemingly been given the official recognition they hitherto lacked, the future of using the rural areas for such industrial undertakings is not at all certain. The increasing tempo of rural conservation measures may have important consequences for this sector, and for small-firm population in the future. Yet the need for a balance between slowing the rapid urban drift and rural depopulation, and the conservation policy, may well curtail the future development of the small firms in the rural areas. One certain thing, however, is that a greater control in the distribution of the small-firm population is needed, and therefore an increase in the development of rural industrial estates is warranted. Perhaps an agency such as CONIRA could be entrusted with the responsibilities of establishing and managing such estates.

As a whole, there will be definite changes in the demographic features of the small firms, although it will be unlikely that their importance will significantly change.

VI Concluding Remark:

The position of the small-business sector has lately become a subject of interest both among academics and the Government, the latter being reflected specially by the 'Bolton Committee' which has been followed by a series of governmental and administrative developments in this field, including the establishment of a special division concerned with the development of this sector, within the Department of Trade and Industry, and headed by a Minister.

Although the small firms have seemingly been given the official recognition they hitherto lacked, the future of using the rural areas for such industrial undertakings is not at all certain. The increasing tempo of rural conservation measures may have important consequences for this sector, and for small-firm population in the future. Yet the need for a balance between slowing the rapid urban drift and rural depopulation, and the conservation policy, may well curtail the future development of the small firms in the rural areas. One certain thing, however, is that a greater control in the distribution of the small-firm population is needed, and therefore an increase in the development of rural industrial estates is warranted. Perhaps an agency such as CoSIRA could be entrusted with the responsibilities of establishing and managing such estates.

As a whole, there will be definite changes in the demographic features of the small firms, although it will be unlikely that their importance will significantly change.

Whether this segment of the economy, in which small business is entrenched and will not be dislodged, will be a growing or dwindling segment, depends on such economic factors as the comparative growth of industries and on the economic, sociological, technological and political trends that will shape the world economy in the decades ahead.

However, so long as man finds the needs to express his independence and exercise pioneering spirit, especially if no political barriers are imposed, the small business will continue to become an attractive avenue for such fulfillment. It is possibly in this area that, at the personal level, small business will continue to play a significant role.

- Atherton, R.S. Supporting the Smaller Firm in The Economist December 1964.
- Ashmoson, J.W. A Theory of Achievement Motivation John Wiley and Sons Inc., New York, 1966.
- Feather, H.T.
- Hall, S.W. An Introduction to Company Balance Sheets S.F.C. (London) 1965.
- Banks, R. Managing the Smaller Company American Management Association Inc., New York, 1967.
- Barusa, W. What Government Efforts are Being made to assist Small Business in Law and Contemporary Problems Vol. 24 No. 1 1959.
- Barson, H.J. The Effects of the Size of the Firm on Profitability in Business Harvard Business Review Spring 1967.
- Beall, D.C. Organization and Control of the Smaller Enterprise The University of Minnesota Press, Minneapolis, 1955.
- Bees, J. The Financier of Small Business Sweet and Maxwell, London, 1971.
- Beasley, M. The Birth and Death of Industrial Establishments: Experience in the West Midland Conurbations in Journal of Industrial Economics Vol. 4 October 1955 45 - 51.

BIBLIOGRAPHY

- Aitken, H.G.J. Explorations in Enterprise: Harvard University Press: Cambridge, Massachusetts. 1965.
- Alexander, T.C. Success and Failure in Small Manufacturing: Woodruff, A.M. Pittsburg University Press, 1958.
- Allen, C. Growth, Profitability and the Small Firm, in Management Decision. Vol. 4 No. 4, 1970; 19 - 23.
- Allen, L.L. Four Premises for Small-Business Financing, in Journal of Small Business Management. Vol. 9 Spring April 1971.
- Andrews, V. Working Capital Financing of Small Business. Friedland, S. in Law and Contemporary Problems. Vol. 24 Shapiro, E. No. 1, 1959.
- Asia-Kyokai The Smaller Industry in Japan: Obun Printing Co., Tokyo, 1957.
- Atherton, H.S. Running the Smaller Firm in The Manager December 1964.
- Atkinson, J.W. A Theory of Achievement Motivation: John Feather, N.T. Wiley and Sons Inc., New York, 1966.
- Ball, S.W. An Introduction to Company Balance Sheet: B.P.C. (London) 1965.
- Banks, R. Managing the Smaller Company: American Management Association Inc., New York, 1969.
- Barnes, W. What Government Efforts are being made to assist Small Business in Law and Contemporary Problems: Vol. 24 No. 1 1959.
- Barron, M.J. The Effects of the Size of the Firm on Profitability in Business Ratios: Spring 1967.
- Basil, D.C. Organisation and Control of the Smaller Enterprise: The University of Minnesota Press, Minneapolis, 1955.
- Bates, J. The Financing of Small Business: Sweet and Maxwell, London 1971.
- Beesley, M. The Birth and Death of Industrial Establishment: Experience in the West Midland Conurbations in Journal of Industrial Economics Vol. 4 October 1955 45 - 61.

- Bingham, W.V.
Davis, W.T. Intelligence Test Scores and Business Success in Journal of Applied Psychology: Vol. 8, No. 1, February 1924 1 - 22.
- Bolton, J.E.
(Charman) Small Firms - Report of the Committee of Inquiry on Small Firms: H.M.S.O., London 1972.
- Boswell, J.C. Small Firm Survey: I.C.F.C., London, 1969.
- Boswell, J. The Rise and Decline of Small Firms: George Allen and Unwin Ltd., London, 1972.
- Bott, E. Family and Social Network: Tavistock Publication, London, 1957.
- Bureau of Business Research - Western Reserve University
Small Business Success: Operating and Executive Characteristics: A small business management research report: 1963.
- Bursk, E.C. Developing Executive Leaders: Harvard University Press, Cambridge, Massachusetts. 1971.
- Cahn, B.D. Capital for Small Business: Sources and Methods in Law and Contemporary Problems. Vol. 24, No. 1, 1959.
- Caretta, A.A. Some Competitive Practices with which Small Business must contend in Law and Contemporary Problems. Vol. 24, No. 1 1959.
- Chamberlain, N.W. Enterprise and Environment: The Firm in Time and Place: McGraw Hill Book Co., New York, 1968.
- Chambers, E.J.
Gold, R.L. Factors in Small Business Success or Failure: Management Research Summary 145, S.B.A., Washington D.C., 1963
- Child, J. The Business Enterprise in Modern Industrial Society: Collier-Macmillan Ltd., London 1969.
- Chinoy, E. Automobile Workers and The American Dream: Doubleday & Co., Garden City, 1955.
- Christensen, C.R. Management Succession in Small and Growing Enterprises: Harvard University, Boston, 1953.
- Clarke, P. Small Businesses: How they Survive and Succeed. Newton Abbot: David and Charles, London, 1972.
- Cleland, S. The Influence of Plant Size on Industrial Relations: Princeton University, N.J., 1955.

- Cole, A.H. Business Enterprise in its Social Setting: Harvard University Press, Cambridge, Massachusetts, 1959.
- Collins, O.F.
Moore, D.G.
Unwalla, D.B. The Enterprising Man: Bureau of Business and Economic Research, Graduate School of Business Administration; Michigan State University, East Lansing, 1966.
- Committee of Inquiry on Small Firms Research Unit.
A Postal Questionnaire Survey of Small Firms: Non-Financial Data, Tables Definitions and Notes: Committee of Inquiry on Small Firms Research Report No. 17, H.M.S.O., London 1971.
- Confederation of British Industry
Problems of Small Firms - C.B.I. Evidence to the Bolton Committee on Small Firms; C.B.I., London, 1970.
- Confederation of British Industry
Britain's Small Firms: Their Vital Role in the Economy. C.B.I., London, 1970.
- Cooper, A.C. Research and Development is more efficient in Smaller Companies in Harvard Business Review Vol. 42, No. 3, May-June, 1964 75 - 82.
- Cooper, A.C. Small Companies can Pioneer New Products in Harvard Business Review: Vol. 44, No. 5, 1966, 162 - 179.
- Cox, J.G. Scientific and Engineering Manpower and Research in Small Firms: Committee of Inquiry on Small Firms Research Report No. 2, H.M.S.O, London, 1971.
- Dalgleish, R. Business Policy in the Small Firm; with reference to company development as a policy objective in Management Education and Development. No. 2 1971 77 - 85.
- Davies, J.R.
Kelly, M. Small Firms in the Manufacturing Sector: Committee of Inquiry on Small Firms Research Report No. 3. H.M.S.O, London, 1972.
- Deeks, J. The Owner Manager: some training perspectives in Industrial and Commercial Training: June 1970.
- Deeks, J. The Owner-Managers and Managers of Small Firms - a Descriptive Survey: Furniture and Timber Industrial Training Board. September, 1970 London.

- Deeks, J. The Small Firm - Asset or Liability in Management Decision; Vol. 10 1972, 52-70
- Dickerson, O.D. The Failure Rates of Business in Pfeffer I
Kawaja, M. The Financing of Small Business. Collier-Macmillan, New York. 1967.
- Donham, P. Whither Small Business in Harvard Business Review; Vol. 35, No. 2, March, 1957. 73 ef
- Donham, P. New Enterprises and Small Business Management.
Day, J.S. Richard D. Irwin Inc., Homewood, Illinois, 1959.
- Donnelley, R.G. The Family Business in Harvard Business Review.
Vol. 24, No. 4 1964, 93 ef.
- Drucker, P.F. The Practice of Management: Pan Books Ltd.,
London, 1970.
- Dunning, J.H. British Industry: Change and Development in
Thomas, C.J. the Twentieth Century. Hutchinson & Co. Ltd.,
London, 1963.
- Economists Advisory Group
Financial Facilities for Small Firms; Committee
of Inquiry on Small Firms Research Report No. 4.
H.M.S.O., London, 1971.
- Economists Advisory Group
Problems of the Small Firm in Raising External
Finance. The Results of a Sample Survey.
Committee of Inquiry on Small Firms Research
Report No. 5. H.M.S.O., London, 1971.
- Edwards, A.L. Statistical Methods for the Behavioural
Sciences. Holt, Rinehart and Winston, New
York, 1954.
- Edward, R.S. Business Enterprise: Its Growth and Organ-
Townsend, H. ization. MacMillan & Co. Ltd., London, 1965.
- Epstein, R.C. Profits and Size of Firms in the Automobile
Industry, 1919-1927 in American Economic Review.
No. 21, 1931. 636-47
- Feldman, E.S. Small Business and Labour Relations Problems
in Law and Contemporary Problems. Vol. 24,
No. 1, 1959.
- Florence, P.S. Investment, Location and Size of Plant.
Cambridge University Press, London. 1948.
- Florence, P.S. Economics and Sociology of Industry. C.A. Watts
& Co. Ltd., London, 1969.

- Fox, K.A. An Analysis of Environmental and Managerial Factors in the Success or Failure of Small Manufacturing Enterprises. Bureau of Business and Economic Research, University of Iowa, Iowa City, 1961.
- Freedman, H.S. Scientific Management in Small Business in Harvard Business Review. Vol. 28 No. 3 (May, 1950) 33.
- Freedman, H.S. Effective Management in Small Business in Harvard Business Review. Vol. 30, No. 2 (March-April, 1952) 81.
- Freeman, C. The Role of Small Firms in Innovation in the U.K. since 1945. Committee of Inquiry on Small Firms Research Report No. 6. H.M.S.O., London, 1971.
- Ganong, W.L. What Makes a Successful Executive in Management Review. Vol. 40, No. 9, September, 1951. 518-520.
- Gardner, B.B. What makes Successful and Unsuccessful Executive? in Advanced Management. Vol. 13 No. 3, September, 1948. 116-125
- Gibb, C.A. Leadership. Richard Clay (Chaucer Press) Ltd., Bungay, Suffolk. 1969.
- Gibbons, M. Innovation and the Small Firm in R & D Management. Vol. 1, No. 1. October, 1970. 10 ef.
- Watkins, D.S.
- Golby, C.W. Attitude and Motivation (Committee of Inquiry on Small Firms Research Report No. 12). Her Majesty's Stationery Office, London, 1971.
- Johns, G.
- Goldman, A.I. A Theory of Human Action: Prentice Hall, Englewood Cliff, New Jersey. 1970.
- Gorton, M. The Pattern of Changes in Size Structure of Business or Firms in Small Business Management Research Report. University of Chicago. S.B.A., Washington D.C., 1964.
- Gough, J.W. The Rise of the Entrepreneur. B.T. Batsford Ltd., London. 1969.
- Greenwood, W.T. Management and Organizational Behaviour Theories: An Interdisciplinary Approach. South-West Publishing Co., New York. 1965.
- Greiner, L.E. Evolution and Revolution as Organizations Grow in Harvard Business Review. Vol. 50, No. 4. July/August, 1972.
- Grimshaw, A. Problems of the Independent Businessman. McGraw Hill Book Co. Inc., New York, 1955.

- Gross, A. Meeting the Competition of Giants in Harvard Business Review. Vol. 45 No. 3. May-June, 1967 172.
- Harris, R.
Solly, M. A Survey of Large Companies. The Institute of Economic Affairs. London, 1959.
- Hart, P.E.
Mellors, J. Profitability and the Size of Firm in University of Reading Discussion Papers in Economics. No. 15, June, 1969.
- Hempel, E.H. Small Plant Management. McGraw-Hill Book Co., New York. 1960.
- Hemphill, J.K. Dimensions of Executive Positions: A Study of the Basic Characteristics of the Positions of 93 Business Executives. Bureau of Business Research, College of Commerce and Administration. The Ohio State University, Columbus, Ohio. 1967.
- Henry, W.E. The Business Executive - The Psychodynamic of a Social Role in American Journal of Sociology. Vol. 54, No. 4. January, 1949. 256-291.
- Hoad, W.M.
Rosko, P. Management Factors Contributing to the Success of Failure of New Small Manufacturers. Bureau of Business Research, Graduate School of Business Administration. The University of Michigan, Ann Arbor. 1964.
- Hollander, E.D.
and Others The Future of Small Business. F.A. Fraeger Publishers, New York. 1967.
- Hosmer, W.A. Small Manufacturing Enterprises in Harvard Business Review. Vol. 35, No. 6 (November-December, 1957) 111.
- Hosmer, W.A.
Tucker, F.L.
Cooper, A.C. Small Business Management: A Casebook. Richard D. Irwin Inc., Illionis, 1966.
- Hourwich, S. For Smaller Companies, a Yardstick to Measure Survival in European Business. Vol. 29 Spring, 1971. 58-65.
- Ijiri, Y.
Simon, H.A. Business Firm Growth and Size in The American Economic Review. Vol. 54, No. 2, 1964. 77-89.
- Indik, B.P. Organization Size and Member Participation: Some Empirical Tests of Alternative Explanation in Human Relations. Vol. 18, 1965 339-49.

- Ingham, G.K. Size of Industrial Organization and Worker Behaviour. Cambridge University Press. 1970.
- International Labour Office
Services for the Small Scale Industries. I.L.O., Geneva, 1961.
- International Labour Office
The Enterprise and Factors Affecting its Operation. I.L.O. Geneva, 1965.
- International Labour Office
Management Development Series No. 7.
International Technical Meeting-cum-Study Tour on Management of Small Enterprises. Conclusions and Papers. I.L.O. Geneva, 1969.
- Kaplan, A.D.H. Small Business: Its Place and Problems. McGraw-Hill Book Co. Inc., New York, 1948.
- Kefover, G.B. Small Business in Government-Sponsored R & D Programmes in Law and Contemporary Problems. Vol. 24, No. 1 1959.
- Keith, E.G. The Impact of Taxation on Small Business in Law and Contemporary Problems. Vol. 24, No. 1 1959.
- Kelley, P.C.
Lawyer, K.
Baumbach, C.M. How to Organize and Operate a Small Business. Prentice Hall, Inc., Englewood Cliffs, N.J. 1968.
- Lawyer, K. Small Business Success: Operating and Executive Characteristics. Western Reserve University, Cleveland, Ohio. 1963.
- Lewis, F.G. A Comparison of Some Aspects of the Background and Careers of Small Businessmen and American Business Leaders in American Journal of Sociology. Vol. 65, No. 3. January, 1960.
- Lewis, R.
Stewart, R. The Boss: The Life and Times of the British Businessman. Phoenix House, London, 1961.
- Lipset, S.M.
Bendix, R. Social Mobility and Occupational Career Patterns: Stability of Job Holding in American Journal of Sociology. Vol. 57, No. 4. January, 1952. 366-74.
- Lipset, S.M.
Bendix, R. Social Mobility and Occupational Career Patterns: Social Mobility in American Journal of Sociology. Vol. 57, No. 5. March 1952. 494-505.

- Litzberg, R.A. Management Aids for Small Manufacturers Annual No. 7. S.B.A. Washington, 1961.
- Lotfus, R. Management in Small Business in I.L.O. Management Development Series No. 7. Geneva, 1969.
- Lucey, I.F.D.
Kaldor, R.D. Rural Industrialization. Geoffrey Chapman, London, 1969.
- Lund, P.
Miner, D. Three Studies on Small Firms. Committee of Inquiry on Small Firms Research Report No. 11. H.M.S.O., London, 1971.
- Lydall, H.F. The Growth of Manufacturing Firms. Bulletin of Oxford University Institute of Statistics. May, 1959.
- McClelland, D.C.
Atkinson, J.W.
Clark, R.A.
Lowell, E.L. The Achievement Motivation. Appleton-Cent. Crofts, Inc., New York, 1958.
- McClelland D.C. Business Drive and National Achievement in Harvard Business Review. Vol. 40, No. 4. July-August, 1962. 99.
- McClelland D.C.
Winter, D.G. Motivating Economic Achievement. The Free Press, New York. 1969.
- McGregor, D. The Human Side of Enterprise. McGraw Hill, New York. 1960.
- McGuire, J.W. Factors Affecting the Growth of Manufacturing Firms. Bureau of Business Research University of Washington, Washington. 1963.
- McKeever, J.L. Problems of Small Retailers. S.B.A. Management Research Summary No. 9. January, 1961.
- McMahon Jr. T.W. The Banker Looks at Small Business in Marting, E (ed) Management for the Smaller Company. (A.M.A.) Riverside Press, New York. 1959.
- Mackintosh, A.S. The Development of Firms. Cambridge University Press, London. 1963.
- Marsden, K. Factors Affecting the Management of Small Enterprises in I.L.O. Management Development Series No. 7. Geneva, 1969.
- Marting, E. Management for the Smaller Company. (American Management Association), Riverside Press, New York, 1959.

- Matthews, K.N. A Feasibility Study to Test and Develop the Methodology for "A Study of the Role of the Entrepreneur in Manufacturing Firms Founded During the Period 1955-1969". (Unpublished Report). Small Business Centre, University of Aston in Birmingham. 1971
- Matthews, T.
Mayers, C. Developing a Small Firm. B.B.C., London, 1968.
- Mayer, K.B. Small Business as a Social Institution in Social Research. Vol. XIV 1947. 332 ef.
- Mayer, K.B.
Goldstein, S. The First Two Years: Problems of Small Firm Growth and Survival. Small Business Administration, Washington. 1961.
- Miller, H. The Way of Enterprise. The Inst. of Economic Affairs, London. 1963.
- Mills, A.E. Environment and Size of Firm in Journal of Management Studies. Vol. 1, 1964. 67 ef.
- Merret-Cyriax Associates
Dynamics of Small Firms. Committee of Inquiry on Small Firms Research Report No. 12. H.M.S.O., London, 1971.
- Meyer, F.V.
Corner, D.C.
Parker, J.E.S. Problems of a Mature Economy. MacMillan Co. Ltd., London. 1970.
- Miller, H. The Small Firm as Innovator. Aims of Industry, London. 1969.
- Mulvaney, J.E. Production Control. B.P.C. (London). 1968.
- National Economic Development Council.
Investment Appraisal. H.M.S.O., London, 1967.
- Numas (Management Services) Ltd.
Tackling the Problems of the Smaller Firm. B.P.C. (London) 1968.
- Organisation for Economic Co-operation and Development
The Conditions for Success in Technical Innovation. O.E.C.D., Paris, 1971.
- Organization for Economic Co-operation and Development
Problems and Policies Relating to Small and Medium-Sized Businesses. O.E.C.D., Paris, 1971.

- Osborn, R.C. The Plea for the Small Business in Grimshaw, A. The Problems of the Independent Businessman. McGraw Hill, New York, 1955.
- Oxenfeldt, A.R. Pricing Principles for Small Business in Marting, E, Management for the Smaller Business. A.M.A., New York, 1959.
- Oxenfeldt, G. Determinants of Business Success in a Small Western City in Social Forces. Vol. 30, No. 2, December, 1951. 223 ef.
- Oxenfeldt, A.R.
- Paustian, P.W. Small Business Instability and Failure in Alabama. Small Business Management Report by Bureau of Business Research. University of Alabama, 1963.
- Lewis Jr. J.L.
- Penrose, E.T. The Theory of the Growth of the Firms. Basil Blackwell, Oxford. 1968.
- Peterson, R.E. Operations Research and the Small Firm in Journal of Small Business Management. Vol. 9, April, 1971.
- Pfeffer I. (ed) The Financing of Small Business. Collier-Macmillan, New York, 1967.
- PEP Report Thrusters and Sleepers. A Study of Attitudes in Industrial Management. George Allen & Unwin Ltd., London. 1965.
- Perrigo, A.E.B. Modern Managerial Techniques. D. Van Nostrand & Co. Ltd., London. 1968.
- Perrigo, A.E.B. Problems of Management in the Smaller Business. Journal of the Oil and Colour Chemists' Association. Vol. 53, No. 4, April 1970.
- Perrigo, A.E.B. The Industrial Training Act and Management Training, with Particular Reference to the Needs of Small Firms. (Unpublished Ph.D. Thesis) University of Aston in Birmingham, Birmingham, 1972.
- Peters, L.H. Management and Society. Dickenson Publishing Co., Belmont, California, 1968.
- Revans, R.W. Industrial Morale and Size of Unit in W. Galenson and S.M. Lipset (eds) Labour and Trade Unionism. Wiley, New York, 1960.
- Rice, D.G. Small Business and Its Problems in the United Kingdom in Law and Contemporary Problems. Vol. 24, No. 1, 1959.

- Roe, C.G. Profitable Marketing for the Smaller Company. Directors Bookshelf, London. 1969.
- Rosa, R.V. Small Business and Depression in Harvard Business Review. Vol. 26, No. 1 (January, 1948) 58.
- Rosenbluth, G. The Trend in Concentration and Its Implications for Small Business. Law and Contemporary Problems. Vol. 24, No. 1 1959.
- Rosow, J.M. Executive Compensation in Small Companies in Harvard Business Review. Vol. 31, No. 3 (June 1953) 55.
- Sadler, P.J.
Barry, B.A. Organizational Development. Longmans Green & Co. Ltd., London, 1970.
- Schlaifer, R. Big Business and Small Business: A Case Study in Harvard Business Review. Vol. 28 No. 4 (July, 1950) 97.
- Singh, A.
Whittington, G. In collaboration with Burley H.T. Growth, Profitability and Valuation. Cambridge University Press, London, 1968.
- Small Business Administration
Success and Failure in Small Business. S.B.A., Washington, 1964.
- Smaller Enterprises Agency
Small Enterprise Financing in Japan. S.E.A., Tokyo, 1967.
- Smith, N.R. The Entrepreneur and His Firm: The Relationship between Type of Man and Type of Company. Michigan State University, Michigan, 1967.
- Stanley, E.
Morse, R. Modern Small Industry for Developing Countries. McGraw Hill Book Co., New York. 1965.
- Steindl, J. Small and Big Business. Blackwell, London, 1945.
- Steiner, A.G. Approaches to Long-Range Planning for Small Business in Pfeffer I. (ed) The Financing of Small Business. Collier-Macmillan, New York, 1967.
- Stekler, H.O. Profitability and Size of Firm. Institute of Business and Economic Research. University of California, Berkeley, 1963.

- Talacchi, S. Organization Size, Individual Attitudes and Behaviour: An Empirical Study in Administrative Science Quarterly, Vol. 5, 1960 398-420.
- Tamari, M. The Nature of Trade Credit in Oxford Economic Papers. November, 1970.
- Tamari, M. A Postal Questionnaire Survey of Small Firms: An Analysis of Financial Data. Committee of Inquiry on Small Firms Research Report No. 16. H.M.S.O., London, 1972.
- Theodore, E.D. An Analysis of Some Barriers to Growth in Small Scale Business in Cornell Journal of Social Relation. Vol. 1, No. 1, 1966 105-117.
- Todd, D. The Relative Efficiency of Small and Large Firms. Committee of Inquiry on Small Firms Research Report No. 18. H.M.S.O., London, 1971.
- Tuchi, B.J. The Small Business Dilemma: Profit Versus Cash in Journal of Small Business Management. Vol. 9, April, 1971.
- Van der Hags The Enterprise in Transition. Tavistock Publication Ltd. 1967.
- Venables P.F.R. The Smaller Firm and Technical Education.
Williams, W.J. Max Parrish, London, 1961.
- Weatheril, B. Acorns to Oaks - A Policy for Small Businesses.
Cope, J. Conservative Political Centre, London, 1969.
- Weston, J.F. The Position of Small Business in the American Economy in Pfeffer I. (ed): The Financing of Small Business. Collier-Macmillan, New York, 1967.
- Wheelwright, S.C. Strategic Planning in the Small Business in Business Horizons. August, 1971 51-58.
- Whittington, G. The Prediction of Profitability.
Cambridge University Press, London, 1971.
- Williams, W.M. The Country Craftsman. Routledge & Kegan Paul, London, 1958.
- Winter, L.G. Small Business in the Hawaiian Economy
Scott, B.A. Honolulu Hawaii Economic Research Centre, University of Hawaii, 1963.

- Wittnebert, F.R. Bigness versus Profitability in Harvard Business Review. Vol. 48, No. 1. 1970.
- Wolf, R.B. Collective Bargaining in Small-Scale Industry in Harvard Business Review. Vol. 27, No. 6. November, 1949. 706.
- Wood, R. The Community Goes into Business in Harvard Business Review. Vol. 26, No. 2 March, 1948. 144.
- Woods, K.S. Problems of Small Scale Industries in Rural Surroundings. University of Oxford Agricultural Economic Research Institute, Oxford. 1969.
- Wynne-Roberts, C.R. Problems and Challenges of Growth to Small Industries in I.L.O. Management Series No. 7. I.L.O., Geneva, 1969.
- Yamanaka, T. Small Business in Japan. Japan Times Ltd., Tokyo, 1960.

Evidences submitted to the Committee of Inquiry on Small Firms (1969-1970)

1. Aims of Industry.
2. British Productivity Council.
3. Confederation of British Industry.
4. Council for Small Industries in Rural Areas.
5. Engineering Industries Association.
6. Midland Bank Limited.
7. Small Business Centre, University of Aston in Birmingham.
8. Small Industries Council for Rural Areas in Scotland.

APPENDIX I

A Specimen of the Check-list used in the Study.

- b) Non-limited sole proprietorship
- 1. How long has the firm been established?
- d) Non-limited family business
- a) Less than 5 years
- b) 6 - 10 years
- c) 11 - 15 years
- d) 16 - 20 years
- e) Over 20 years
- 2. How was the present firm established?
- a) Present owner(s) established it
- b) Bought an already existing firm
- c) Established it with partner's who has since left
- d) Took over from father/another member of family
- e) Others (Please specify)
- 3. What are the main activities of the firm?
- a) Manufacturing product(s)
- b) Selling a service(s)
- c) Doing sub-contract work
- d) Making products to order
- e) Others:

4. Type of firm

- a) Limited sole proprietorship
- b) Non-limited sole proprietorship
- c) Limited family business
- d) Non-limited family business
- e) Limited partnership
- f) Non-limited partnership

5. The principal reason for going into business:

- a) As a source of steady income
- b) To enhance prestige/status
- c) To make money
- d) To be independent
- e) Result of/threat against redundance/
unemployment
- f) Desire to create a product/s or crafts
- g) Frustration as employee in another firm
- h) To continue family business
- i) Others:

6. How long have you been planning and making preparations to open the business before you actually started it?

- a) An unplanned occurrence
- b) One month
- c) 2 - 6 months
- d) 7 - 12 months
- e) 13 - 18 months
- f) 19 - 24 months
- g) Over two years (state:)

7. In considering the opening of the business did you seek advice from any of the following:

- a) Supplier
Present premises
- b) Potential customers
rented building (Describe
- c) Banker
temporary building (Describe
- d) Businessmen in competing line
- e) Businessmen in non-competing line
- f) Family members
vacancy of building

8. Size of capital when you started the business:

- a) Less than £200
- b) £220 - £500
- c) £501 - £1000
- d) £1001 - £2000
- e) £2001 - £3000
- f) £3001 - £5000
- g) £5001 - £10,000
- h) £10,000 - £15,000
- i) £15,000 - £20,000
- j) Over £20,000

9. What were your sources of capital at the start?

- a) Personal saving
- b) Gratuities from previous employment
- c) Family sources
- d) Loan from friends
another small company
- e) Loan from former employer
small/big company
- f) Loan from bank/financial institution
- g) Loan from RIB/Cosira

10. Which premises did you start your business in?
a) Present premises
b) In rented building (Describe)
c) In temporary building (Describe)
11. Why did you choose the present premises?
a) Availability/vacancy of building
b) Nearness to home
c) Familiarity with neighbourhood
d) Availability of business for sale
e) Others:
12. What have been the major obstacles in the initial years?
a) Inadequate finance
b) Production/technical difficulties
c) Inadequate skilled labour^r
d) Marketing difficulties
e) Unsatisfactory premises
f) Partnership incompatibility
f) Heavy taxation/duty
h) Others:
13. What did you give up when you started on your own?
a) An executive job in a big company
b) An executive job in another small company
c) A supervisory job in a small/big company
d) A skilled job in a small/big company
e) Others:

14. Do you consider that you have given up a career prospect when starting on your own?

Yes.

No.

15. How long were your difficult initial years?

- a) None year/month,
- b) First six months
- c) First one year (before owners/directors generation), in the first profit-making year?
- d) First two years
- e) First three years
- f) First four years
- g) First years

16. What was your business turnover in the first year, approximately?

- a) Less than £200
- b) £201 - £500
- c) £501 - £1000
- d) £1001 - £2000
- e) £2000 - £3000
- f) £3001 - £4000
- g) £4001 - £5000

If over £5000 tick below against appropriate value:

- a) £5000 - £10,000
- b) £10,001 - £15,000
- c) £15,001 - £20,000
- d) £20,001 - £25,000

20. e) £25,001 - £30,000 percent growth of your firm
f) £30,001 - £35,000
g) Over £35,000 (State:)

17. How long after you started did you make profit?

Within first/after second/third/fourth/fifth/.....
year/month.

18. What was your profit (before owners/directors remuneration), in the first profit-making year?

- a) Less than £100
b) £101 - £200
c) £201 - £300
d) £301 - £400
e) £401 - £500
f) Over £500 (State:)

19. What was your business turnover last financial year?

- a) Less than £10,000
b) £10,000 - £20,000
c) £20,001 - £30,000
d) £30,001 - £40,000
e) £40,001 - £50,000
f) Over £50,000 (State:)
g) Over £100,000 (State:)

20. How do you rate the current growth of your firm?
- a) Still experiencing difficult years S.A.V.
 - b) Over the 'hump' S.A.V.
 - c) A stable steady growth S.A.V.
 - d) Has levelled off S.A.V.
 - e) Had declined S.A.V.
 - f) Others S.A.V.
21. How do you rate your performance thus far?
- a) Not very successful S.A.V.
 - b) Only fair S.A.V.
 - c) Fairly successful S.A.V.
 - d) Very successful S.A.V.
22. What has been the greatest demands made upon you as the owner of the business?
- a) Reduced leisure S.A.V.
 - b) Restricted family life S.A.V.
 - c) Lower income than otherwise S.A.V.
 - d) Extreme demand on my ability S.A.V.
 - e) Others: S.A.V.
23. How do you assess the value of rural location in your business?
- a) Advantageous S.A.V.
 - b) Disadvantageous S.A.V.
 - c) No difference S.A.V.
 - d) Advantageous and disadvantageous even out S.A.V.

24. Is your share of the market: Can you consider the firm to be strong, average or weak in (Circle S.A. or W)
- a) Increasing? S/A/W
 - b) Decreasing? S/A/W
 - c) Constant? S/A/W
25. In which of the following features do you think the firm is in a strong, average or weak position (Mark S.A.W.)
- a) Price S.A.W.
 - b) Quality S.A.W.
 - c) Delivery S.A.W.
 - d) Service S.A.W.
 - e) After Sales Service S.A.W.
 - f) Sales force S.A.W.
 - g) Design S.A.W.
 - h) Interpretation of market requirement S.A.W.
26. How does the firm price its goods/service?
- a) Follow price leader For assessment of tax purposes
 - b) Rough estimate of cost plus % mark up To indicate whether firm made a loss/profit
 - c) Cost calculated by standard costing plus % profit Planning and control purposes
 - d) Arbitrary guessing Do you base your sales and collection figures?
 - e) Others: Monthly
27. Does the firm employ:
- a) A full-time Accountant? Yes/No
 - b) A full-time/part-time book-keeping Yes/No
 - c) A sales/marketing manager Yes/No
 - d) A factory manager/supervisor/foreman Yes/No

28. Which of the following practices do you consider the firm to be strong, average or weak in: (Circle S.A. or W)

- a) Budgetting this at short notice S/A/W
- b) Sales forecasting balance S/A/W
- c) Production control for against payments S/A/W
- d) Credit control records of cumulative S/A/W
 totals of receipts and payments
- e) Cost control S/A/W
- f) Labour control S/A/W
- g) Stock control S/A/W
- h) Marketing S/A/W
- i) Forward Planning S/A/W

29. How do you use the Annual Balance Sheet/Profit and Loss Account?

- a) As historical data only
- b) As indication of performance in the previous
year
- c) For assessment of tax purposes
- d) To indicate whether firm made a loss/profit
- e) As a basis for planning and control purposes
- f) Others:

30. How often do you assess your sales and collection figures?

- a) Weekly
- b) Monthly
- c) Quarterly
- d) Mid-yearly
- e) Annually

31. How do you make a quick assessment of your financial position of the firm? *2, 3 etc. in order of importance*
- a) Unable to do this at short notice *.....*
 - b) Checking the bank balance *.....*
 - c) Adding up sales order against payments *.....*
 - d) Availability of records of cumulative totals of receipts and payments *.....*
 - d) Others: *.....*
32. Does the firm advertise its product(s)/services?
- a) Regularly *.....*
 - b) Sometimes *.....*
 - c) Never *.....*
33. Do you conduct any development research?
- a) On product *Yes/No*
 - b) On market *Yes/No*
34. What sort of expansion or otherwise do you plan for your firm?
- a) Happy with present size and rate of performance *.....*
 - b) Want an increased rate of growth *.....*
 - c) Wants growth but as long term goal only *.....*
 - d) Leave it to the course of events *.....*
 - e) Maintain current level of sales *.....*
 - f) Others *.....*

35. At present how do you rank the following motives for the firm (Rank 1, 2, 3 etc. in order of importance)

- a) Survival
- b) Profit
- c) Increased sales
- d) Increased or maintain share of market
- e) Growth of firm size
- f) Other:

36. What are the factors which have inhibited the possibility of growth for your firm:

- a) Restricted market
- b) Limited premises/space
- c) Inadequate financing
- d) Lack of the right kind of labour
- e) Excessive competition
- f) Deliberate preference for slower expansion
- g) Heavy taxation
- h) Others:

37. What has greatly assisted your growth thus far?

- a) Increased demand/order
- b) Breakthrough in export
- c) New product line(s)
- d) Technical improvement in products
- e) New equipment
- f) Additional capital acquired
- g) Cosira advisory assistance
- h) Others:

Part II

1. What outside assistance have you solicited/obtained for your firm?
- a) Finance
b) Management advice
c) Technical advice
d) Marketing advice
e) Personnel instruction
f) Others:
Useful, moderately useful and not useful, respectively.
2. Which sources of assistance have you utilised? Mark against each E, F or N for Very useful, moderately useful and not useful, respectively.
- a) Industrial Liaison Office E.F.N.
 - b) British Productivity Council/Local Productivity Association. E.F.N.
 - c) Trade Association E.F.N.
 - d) Banks and other financial institution E.F.N.
 - e) Educational/Training Institution (.....) E.F.N.
 - f) Industrial Training Board E.F.N.
 - g) Council for Small Industries for Rural Areas (COSIRA (RIB) E.F.N.
 - h) Others: E.F.N.
3. Frequency you solicit outside assistance
- a) Regularly
b) Sometimes
c) When there is serious problem
d) Never

4. How long since have you established contact with R.I.B./CoSIRA?

- a) This year
- b) Two years
- c) Three years
- d) Four years
- e) Five years and over (State:)

5. What types of assistance has been received from Cosira? Mark against each its value E, F or N for Extremely useful, moderately useful and not useful, respectively.

- a) Book-keeping E.F.N.
- b) Marketing advice E.F.N.
- c) Trade Fairs and Exhibitions E.F.N.
- d) Work Study and Plan Layout E.F.N.
- e) Technical/Production Advice E.F.N.
- f) Costing Advice E.F.N.
- g) Welding Instruction E.F.N.
- h) Financial Loan E.F.N.
- i) Others:

6. What sorts of courses have you attended since starting the business:

- a) General Management Course
- b) Finance Management Course
- c) Cost Control Management Course
- d) Marketing Management Course
- e) Others:

Part III

5. *Apprenticeship in Armed Services:*

Personal Data:

1. Age when you started business on your own:
 - a) Below 20
 - b) 21 - 25 years
 - c) 26 - 30 years
 - d) 31 - 35 years
 - e) 36 - 40 years
 - f) Over 40

2. Age when you left school:
 - a) Before 13
 - b) 14 years old
 - c) 15 years old
 - d) 16 years old
 - e) Over 16

3. Educational background:
 - a) Elementary School
 - b) Secondary School
 - c) Technical College
 - d) University
 - e) Others:

4. Field of Apprenticeship qualified in:

5. Experienced in Armed Services: your present production/service.
- a) Navy
b) R.A.F.
c) Army
d) Others:
e) Totally different
6. Highest Rank attained when you left the services:
- a) N.C.O.s
b) Lieutenant
c) Captain
d) Major
e) Colonel and above
7. Work experience before starting own business:
- i) Levels:
 - a) Shop floor unskilled
b) Shop floor skilled
c) Clerical
d) Supervisory
e) Managerial
 - ii) Area:
 - a) Production
b) Administration
c) Finance/Accounting
d) Sales/Marketing
e) Others:

8. Were your experience related to your present production/service.
- a) Same
b) Similar
c) Some areas similar
d) Totally different
9. Which member of your family are with the firm?
- a) Wife
b) Son/daughter
c) Brother
d) Others:
10. Have you specific plan for ownership succession of the firm:
- a) Never thought of this question yet
b) Yes, a member of the family (.....) will take over
c) Will sell out before the time comes
d) Others:
11. Are you a member of any association?
- a) Cosira Area Committee
b) Local Productivity Association
c) Trade Association
d) Rotary/Junior Chamber
e) Others:

Part IV

1. Annual Turnover:

Year I	.....	Year VII	.....
Year II	.....	Year VIII	.....
Year III	.....	Year IX	.....
Year IV	.....	Year X	.....
Year V	.....	Year XI	.....
Year VI	.....	Year XII	.....
		Year XIII	.....

2. Number of Employees:

- a) Current year
- b) Last year
- c) Two years ago
- d) First year of operation

3. Interviewer's assessment of:

A. Managerial Strength and Weaknesses:
(S - A - W for Strong, Average or Weak)

- a) Financial Control S.A.W.
- b) Cost Control S.A.W.
- c) Technical Aspect S.A.W.
- d) Stock Control S.A.W.
- e) Marketing S.A.W.
- f) Forward Plans S.A.W.
- g) Succession Plans S.A.W.
- h) Production Control S.A.W.
- i) Budgetry Control S.A.W.

- j) Labour Control Information S.A.W.
- k) Job description S.A.W.
- l) Method Study and Layout S.A.W.
- m) Work measurement S.A.W.

B. Executive Function

- a) General attitude to modern managerial practices S.A.W.
- b) Disposition to Advisory Agencies S.A.W.
- c) Perception of his role/function S.A.W.
- d) Control of his labour S.A.W.
- e) Technical ability S.A.W.
- f) Management ability S.A.W.
- g) Relationship with fellow directors S.A.W.
- h) Motivation and ambition S.A.W.

C. The Workshop/Office

- a) System and order S.A.W.
- b) General appearance S.A.W.
- c) Equipment Maintenance S.A.W.
- d) Office System S.A.W.

APPENDIX II

A Specimen of the brief Questionnaire completed by the Respondent

Please mark (x), on the dotted lines, for items most relevant to you/your firm. In cases where there are more than one items applicable please mark (xx) for the item ascertained to be the most important.

1. What was the principal reason for your starting the business?
 - a) To make money.
 - b) To obtain security against unemployment.
 - c) To enhance prestige/status.
 - d) To be independent.
 - e) Desire to create product/craft.
 - f) To continue family business.
 - g) Result of redundancy.
 - h) Frustration as employee in another firm.
 - i) Others. (Please specify):

2. What are the most important factors contribution to the firm's growth?
 - a) Competitiveness. (Price).
 - b) Services to customers.
 - c) Quality and reputation.
 - d) Technical/production expertise.
 - e) Others. (Please specify):

3. By what mean/s is new business obtained?
 - a) Satisfaction provided to existing customers.
 - b) Reputation gained in the trade.
 - c) Trade contacts.
 - d) Advertising.
 - e) Use of salesman.
 - f) Mail shots.
 - g) Use of agents.
 - h) Others. (Please specify):

4. What is your objective for the business?
 - a) Provide oneself with a job.
 - b) Provide for retirement.
 - c) Provide for children's future.
 - d) Financial gain and security.
 - e) Personal satisfaction of controlling a successful business.
 - f) Freedom of being one's own boss.
 - g) Others. (Please specify):

5. What are your personal most important contributions to the business?
 - a) Practical and technical skill.
 - b) Trade and business contacts.
 - c) Managerial ability.
 - d) Providing finance.
 - e) Hardwork and determination.
 - f) Others. (Please specify):

6. What is/are the major obstacle/s to the growth of your firm?
 - a) Shortage of finance.
 - b) Taxation.
 - c) Management deficiency.
 - d) Limited space/equipment.
 - e) Excessive competition.
 - f) Lack of suitable labour.
 - g) General economic condition.
 - h) Deliberate preference for slow growth.
 - i) No obstacle encountered.
 - j) Other obstacle. (Please specify):

7. What do you consider are the necessary requirements for success in business?
 - a) Knowledge of the trade.
 - b) Practical and technical knowledge.
 - c) Confidence in own ability.
 - d) Adequate financial resources.

- e) Flair or ability to recognise opportunity.
- f) Prepared to accept risk/challenge.
- g) Ability/willingness to work hard.
- h) Good saleable product.
- i) Luck/Right place at the right time/Good timing.
- j) Perseverance and integrity.
- k) Others. (Please specify):

8. What is the firm's objective for the next five years?

- a) Maintain status quo.
- b) To merge with another business.
- c) Improve productivity/reduction of overhead.
- d) Increase assets of business.
- e) Increase liquidity reserves.
- f) New premises/equipment.
- g) Improve profitability.
- h) Increase turnover/expand into new business/new product lines.
- i) Others. (Please specify):

9. Which of the following activities do you perform yourself personally?

- a) Selling - customer relation.
- b) Commercial - finance.
- c) Managing - supervising.
- d) Production planning.
- e) Actual shop floor work/producing.
- f) Design and development.
- g) Others. (Please specify):

10. Which of the following management staff does the firm employ?

- a) Full time Accountant.
- b) General Manager.
- c) Sales/Marketing/Commercial Manager.
- d) Production/Technical/Works Manager.
- e) Other specialists. (Please specify):

11. How do you use the Annual Balance Sheet/Profit and Loss Account?
- a) As historical data only.
 - b) As indication of performance - profit/loss - in the previous year.
 - c) For tax assessment purposes only.
 - d) As a basis for planning and control.
 - e) Others. (Please specify):
12. Which of the following 'policies' are adhered to by your firm?
- a) Would solicit advice from advisory agencies/consultants.
 - b) Would not solicit advice from outside agencies.
 - c) Would not raise funds outside, (but rely entirely on internal funds).
 - d) Would borrow/raise funds from outside sources.
 - e) State which of the following sources of finance you have used thus far:
 - i) Family/friends' finance.
 - ii) Bank loans.
 - iii) Government credit agencies.
 - iv) Financial institutions. (e.g. ICFC).
 - v) Others. (Please specify):
13. How do you price your product/s?
- a) Material + M/c hour rate.
 - b) Material + Labour hour rate.
 - c) Material + % added.
 - d) Fixed externally or based on competitive pricing/follow price leader.
 - e) Guestimate/Inspired guessing.
14. What is the wage payment system used by your firm?
- a) Straight piecework.
 - b) Flat rate.
 - c) Flat rate + time bonus.
 - d) Flat rate + shop output/profit bonus.
 - e) Contract pricing.

15. What is the prime control factor in your firm?
- a) Output versus target. State whether daily/weekly/
monthly.
 - b) Monthly cash flow.
 - c) Size and turn round of order book.
 - d) Monthly financial statement.
 - e) Others. (Please specify):
16. Mark any of the following items relevant to you/your firm:
- a) Started the present business as a side line
activity/venture.
 - b) Had savings or other income to fall back on at
start of venture.
 - c) Had no financial cushion at the start.
 - d) Had co-owner or wife employed elsewhere at the
start.
 - e) Started the business without much planning.
 - f) This was first attempt into business.
17. Previous working experience.
- a) Technical/production.
 - b) Administration/general management.
 - c) Financial/Accounting.
 - d) Sales/Marketing.
 - e) Others. (Please specify):
18. Educational background:
- a) Elementary school or equivalent.
 - b) Secondary school or equivalent.
 - c) Technical College or equivalent.
 - d) University or equivalent.
19. Parental background.
- a) Business/Commercial.
 - b) Professional.
 - c) Farming/Agricultural.
 - d) Educational.

APPENDIX III

A SPECIMEN OF THE POSTAL QUESTIONNAIRE
COMPLETED BY CoSIRA ORGANISERS

A Survey of Some Small Firms.
(Their Structure Function and Growth)

Questionnaire for CoSIRA Organisers.

Please complete the following items:

Section A: General Information:

1. What is the total number of firms in your register
2. How many of these are at present receiving a service
from CoSIRA
3. Please give the approximate breakdown of total
firms in terms of their principal activities.
 - a) Manufacturing/Products
 - b) Metal fabricators
 - c) Building trades and Construction
 - d) Electronic, Electrical
 - e) Mechanical Engineering (machining, press work etc.)
 - f) Jig and Tool Makers
 - g) Wood, Plastics and Rubber
 - h) Others
4. Indicate the percentages of the total firms involved in:
 - a) Direct Export Market
 - b) Indirect Export
 - c) National market
 - d) Only local market
 - e) Sub-contractors

Section B.

This section concerns your description of 3 successful and 3 unsuccessful firms of your area (success in terms of profitability and growth). You are not required to identify the actual name of these firms. (Symbols S1 - S3 are assigned for the successful and F1 - F3 for the unsuccessful.)

1. Please provide the following details for the 3 firms you consider to be very successful and the 3 you consider to be unsuccessful:

<u>Firm</u>	<u>Status*</u>	<u>Year Estab.</u>	<u>Trade</u>	<u>No. of Employees</u>
<u>Successful</u>				
S1
S2
S3
<u>Unsuccessful</u>				
F1
F2
F3

*Note: For status. Mark A or B etc. for the following categories.

- A. Family not Limited Company.
- B. Family but Limited Company.
- C. Partnership not Limited Company.
- D. Partnership but Limited Company.
- E. Sole Proprietorship but not Limited.
- F. Sole Proprietorship but Limited.

For trade use classification in Question 3 (Part I).

2. Please supply the background information about the owner-manager(s).

<u>Firms</u>	<u>Approx. Age when started business</u>	<u>Educational* background</u>	<u>Field of wkg.** experience</u>	<u>Level of working exper- ience.***</u>
S1
S2
S3
F1
F2
F3

Note: Use the following codes:

*Educational background:

- A: Elementary School
- B: Secondary School
- C: Technical College
- D: University
- E: Apprenticeship
- F: Others (Please specify)

**Field of working experience

- A: Production
- B: Sales/Marketing
- C: Finance
- D: Accounting
- E: General Office
- F: Others (Please specify)

*** Level of working experience

- A: Shop Floor (Unskilled)
- B: Shop Floor (skilled)
- C: Supervisory
- D: Managerial
- E: Others (Please specify).

3. If possible, please give the approximate a) sales turnover b) Net profit/loss last financial year, of the six firms (In cases of firms that have closed down, then last year of operation).

<u>Firm</u>	<u>Sales Turnover</u>	<u>Profit / Loss</u>	
		<u>+</u>	<u>-</u>
S1
S2
S3
F1
F2
F3

4. What in your opinion is the respective owner-managers' attitude towards a) outside agencies such as CoSIRA b) modern managerial techniques (e.g. paper costing, production control etc.).

	a) <u>Towards Agencies</u>	b) <u>Towards Management Technique</u>
S1
S2
S3
F1
F2
F3

Use the following codes:

- A Very favourable and actually using them
- B Very favourable but limited useage
- C Lip service only
- D Neutral
- E Negative

5. Could you please assess the respective owner-managers' reason(s) for going into business:

- A. To make money
- B. To obtain security against unemployment
- C. To enhance prestige/status
- D. To be independent
- E. Desire to create product
- F. To continue family business
- G. Frustration as employee in another firm.
- H. Others (please specify).

- S.1
- S.2
- S.3
- F.1
- F.2
- F.3

6. Could you please verify the major obstacles the firms faced in their initial years.

- A. Inadequate finance
- B. Marketing difficulties
- C. Unsatisfactory premises
- D. Inadequate skilled manpower
- E. Technical production problems
- F. Partnership incompatibility
- G. Family pressures
- H. Others (Please specify).

- S.1.
- S.2
- S.3
- F.1
- F.2
- F.3

7. Indicate the types of assistance other than the guidance and support given by you, provided by CoSIRA to the firms.

- A. Book-keeping B. Marketing C. Work Study and Plant layout
- D. Technical/Production E. Costing/Pricing F. Welding Instruction
- G. Financial H. Training/Courses I. Others (Please specify)
- J. None.

- S.1
- S.2
- S.3
- F.1
- F.2
- F.3

8. How useful was CoSIRA assistance in terms of the performance of the respective firms?

- A. Very important B. Important C. Moderate
- D. Not important E. Adverse

- S.1
- S.2
- S.3
- F.1
- F.2
- F.3

9. Could you please state (if you know it) the type of assistance/consultation the founder/s of the firm solicited before starting business.

- A. Lawyer B. Banker C. Accountant D. Potential Customers
E. Suppliers F. CoSIRA

S.1 F.1
S.2 F.2
S.3 F.3

10. What types of assistance do the firms still solicit and obtain now. (Using symbols in 7.)

S.1 F.1
S.2 F.2
S.3 F.3

11. How long since a) RIB/CoSIRA b) you personally, have been associated with the firms:

S.1 a) b) F.1 a) b)
S.2 a) b) F.2 a) b)
S.3 a) b) F.3 a) b)

12. Which of the following features do you think the firms are in a STRONG, WEAK OR AVERAGE position?

- A) PRICE D) SERVICE G) SKILL
B) QUALITY E) SALES & MARKETING H) OWNER/S MOTIVATION
C) DELIVER F) TECHNICAL & DESIGN

<u>FIRM</u>	<u>STRONG</u>	<u>AVERAGE</u>	<u>WEAK</u>
S.1
S.2
S.3
F.1
F.2
F.3

13. How do the respective firms price their goods/service(s)?

- | | |
|---|------------------------------------|
| A. Follow price leader | E. Arbitrary/Inspired guessing. |
| B. Rough estimate of cost-plus profit/mark-up | F. Competitive or market price. |
| C. Seek pre-determined rate of return. | G. Negotiated with each purchaser. |
| D. Actual calculation of cost-plus profit. | |

S.1	.....	F.1	.....
S.2	.....	F.2	.....
S.3	.....	F.3	.....

14. Does the respective firm employ the following:

- | | |
|----------------------------------|---------------------------------------|
| A. Full-time Accountant | C. Full-time or Part-time Book-keeper |
| B. Specialist e.g. Engineer | D. Sales/Marketing Manager |
| E. Factory manager/works Manager | |

S.1	.....	F.1	.....
S.2	.....	F.2	.....
S.3	.....	F.3	.....

15. Which of the following practices do you think does the respective firm is STRONG, AVERAGE OR WEAK in?

- A. Budgetting
- B. Credit Control
- C. Stock Control
- D. Book-keeping
- E. Sales forecasting
- F. Cost Control
- G. Marketing
- H. Production control
- I. Labour control
- J. Forward planning

	<u>STRONG</u>	<u>AVERAGE</u>	<u>WEAK</u>
S.1
S.2
S.3
F.1
F.2
F.3

16. What do you consider are the major reasons for the success of the successful firms?

- A. Sound technical knowledge/know-how
- B. Quality and precision of product(s)/service(s)
- C. The demand of the product(s)/service(s)
- D. Ability of the firm to sell/market its good(s)/service(s)
- E. Good management (i.e. practice of sound managerial techniques)
- F. Favourable location
- G. Ample capital
- H. Luck/chance
- I. Others (please specify)

S.1	.....	F.1	.....
S.2	.....	F.2	.....
S.3	.....	F.3	.....

17. What special factors have assisted the growth of the successful firms?

- A. Increased demand/order
- B. New product line/s
- C. Acquisition of additional equipment
- D. Breakthrough in export
- E. Technical improvement in product/s.
- F. Introduction of automation
- G. Additional capital acquired
- H. CoSIRA Advisory Assistance
- I. Acquisition of new plant
- J. Others (please specify)

- S.1
- S.2
- S.3

18. What do you consider are the main factors of the poor performance of the non-successful firms?

- A. Limited experience in the industry
- B. Poor knowledge of market
- C. Incompatibility among partners
- D. Too rapid an expansion
- E. Poor management ability
- F. Poor knowledge of marketing technique
- G. Initial undercapitalisation
- H. Little drive or ambition
- I. Top heavy/extravagance
- J. Others (please specify)

- F.1
- F.2
- F.3

19. To what extent do the personal attributes (personality, skill, motivation and customer relations etc.) of the owner manager/s contribute to the poor performance of the non-successful firms.

- A. Very significant B. Significant C. Moderately significant
D. Not significant

F.1
F.2
F.3

20. Generally, please describe some of the outstanding personal characteristics of the owner-managers of the six firms (e.g. ambitious, resourceful, lazy, playful etc.)

Firm

S.1
S.2
S.3
F.1
F.2
F.3

A Guide for completing the Questionnaire

1. Most questions require only answers expressed in codes/symbols and thus will demand relatively less time. (e.g. using A, B, or C etc.)
2. Some of the questions, unavoidably, necessitate your making verification of the firm or their owner-managers. e.g. reasons for going into business.
3. Some questions call for your personal assessment of the qualities/performance of the firms or their owners/managers. I do hope you will provide this assessment objectively and impersonally.
4. You are requested to select each very successful firms and non-successful firms - without actually naming them. For this classification please use the criteria of profitability and growth. In selecting the 3 non-successful firms you may choose firms that have closed down, are closing down or just declining/stagnating.
5. As the essence of this survey will generally gravitate round the theme of performance (i.e. success vs failure) a fair number of "assessment" questions are included, with a view to identifying factors for each firm's success or failure.
6. While no name is required for the firms considered, Codes, S1, S2 or S3 are to be assigned to each of the successful firms, preferably in order of success; and F1, F2 or F3 for the firms considered to be not successful.
7. I reiterate that all data will be treated in the strictest of confidence - they will only appear in the report in terms of statistical analysis.
8. In some questions, where relevant, more than one items/categories can be assigned to each firm e.g. Question 5 Reasons for going into business may be more than one. In such a case, please give the most important reasons first.



Aston University

Content has been removed for copyright reasons



Aston University

Content has been removed for copyright reasons



Aston University

Content has been removed for copyright reasons



Aston University

Content has been removed for copyright reasons



Aston University

Content has been removed for copyright reasons

Source: Reproduced from the official Brief on CoSIRA
(September 1970)

APPENDIX V

TABLE OF RESPONSES/VARIABLES

Overall Performance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
<u>Packing Firms</u>	AB	AK	Z	C	R	AL	X	B	V	O	A	AF	J	W	AC	T	Z	AI	AH	M	S	L	N	D	AD	G	K	AG	AE	H	I	F	Y	P	AJ	AF	AA	U	AK		
<u>Variables</u>																																									
<u>Age of Principals</u>	35	47	28	36	52	29	36	21	43	40	28	33	47	25	32	28	35	30	24	32	31	39	35	36	31	31	42	37	25	36	43	35	31	30	32	42	30	45	43	42	
<u>Current age</u>	39	52	34	39	56	34	44	46	50	45	34	43	50	48	35	35	50	43	31	40	43	47	58	43	41	38	48	50	47	48	43	55	44	41	46	32	50	50	45		
<u>Number of Principal's Children</u>	4	2	2	2	3	3	3	1	2	2	2	3	2	2	2	2	Sing	4 Sing	3 Sing	3	2	3	Sing	0	2	0	2	3	4	1	3	2	0	1	1	0	3	0	1		
<u>Educational Background</u>																																									
<u>A: Primary; B: Secondary; C: Tech. Coll.; D: University</u>	C	A	B	D	C	D	B	C	B	B	C	C	B	B	C	B	B	A	D	C	B	B	A	D	D	B	A	B	A	B	C	B	C	B	B	B	B	D	C	B	
<u>Apprenticeship Training in same or related trades (A = Yes)</u>	A	A	A	A	A	A	A	-	A	-	A	-	-	A	A	A	A	A	-	-	A	A	-	A	A	A	A	A	-	A	A	-	A	-	-	-	-	-	-	-	
<u>Parental Background</u>																																									
<u>A: Business; B: Professional; C: Agricultural; D: Government; E: Craftsman</u>	E	A	E	B	B	A	E	A	E	A	B	A	E	E	E	E	B	A	A	A	E	E	A	B	C	C	D	E	E	C	A	C	B	E	E	C	B	E	D		
<u>Occupational Experience</u>																																									
<u>A: Production; B: Administration; C: Finance/Account; D: Sales/Marketing</u>	A	A	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A	-	-	B	A	A	A	A	A	A	A	A	A	B	B	A	-	-	-	B	B	A	B		
<u>Previous Experience</u>																																									
<u>In line or trade</u>	A	A	A	-	A	A	A	-	A	A	A	-	-	A	A	A	-	-	-	-	A	A	A	-	A	A	A	A	A	A	A	-	-	A	A	-	-	-	-	-	
<u>Business ownership</u>	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	A	A	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	
<u>Reasons for going into Business:</u>																																									
<u>A: Make money; B: Unemployment-caused; C: Prestige; D: Create Craft; E: Family Business; F: Frustration as employee; G: Independence needs; H: Livelihood</u>	A	A	A	A	A	G	F	A	C	A	A	D	D	D	B	B	A	A	A	A	A	G	F	A	F	F	D	D	B	B	A	F	A	E	A	G	G	G	E	G	
<u>Prior Planning before establishment of Firm</u>	A	-	A	A	-	A	A	-	-	-	A	A	-	-	A	-	-	-	-	-	-	A	A	A	-	A	-	A	-	A	A	-	-	-	-	-	-	A	A	-	-

Overall Performance Ranking	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40													
Variables	AB	AM	E	C	R	AL	X	B	V	O	A	AF	J	W	AC	T	Z	AI	AH	M	S	L	K	D	AD	G	K	AG	AE	H	I	F	Y	F	AJ	AP	AA	U	S	AK													
Management Staff	F	-	-	B	C	-	-	B	C	E	-	-	-	-	-	-	B	-	C	-	-	B	C	A	B	A	B	-	B	C	A	B	C	E	F	-	C	-	A	B													
A: General Manager																																																					
B: Sales Manager																																																					
C: Works Manager																																																					
D: Export Manager																																																					
E: Accountant																																																					
F: Engineer																																																					
Patents/Registered Design Held	1	1	1	1	3	4	-	1	-	-	-	-	-	-	-	-	1	-	3	-	-	2	-	2	-	2	-	2	-	7	2	-	-	2	-	1	-	2	-	-	-	-	-	-	-								
Number of Times Prizes Won (Bracketed figures indicate change of locality)	-	1	-	(1)	(1)	1	(1)	(2)	1	(1)	1	(1)	-	-	-	-	1	(1)	-	(2)	(1)	-	2	(2)	(1)	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)					
Pricing Method																																																					
A: Material + M/c																																																					
B: Material + Labour																																																					
C: Material + % added																																																					
D: External standard																																																					
E: Guessimate																																																					
Ware Payment System																																																					
A: Straight piecework																																																					
B: Flat rate																																																					
C: Flat + time bonus																																																					
D: Flat + Profit bonus																																																					
E: Contract pricing																																																					
Principals' Field of Duties	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
A: Selling																																																					
B: Finance/Commercial																																																					
C: Supervision																																																					
D: Production planning																																																					
E: Shop Floor																																																					
F: Design & Development																																																					
Family Participation	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
A: Wife/Children involved in the business																																																					

Overall Performance Ranking	Firm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
Variables	AB AM	5	6	5	4	4	4	8	25	7	5	6	10	18	40	3	18	15	15	23	8	12	8	23	18	10	7	6	11	25	11	15	8	24	14	28	6	50	20	43	11						
Age of Firm		4	5	6	5	4	4	8	25	7	5	6	10	18	40	3	18	15	15	23	8	12	8	23	18	10	7	6	11	25	11	15	8	24	14	28	6	50	20	43	11						
Number of Employees (1970)		9	5	4	12	7	3	5	42	3	5	27	12	10	4	4	21	27	11	15	14	8	65	16	23	100	25	16	13	12	60	26	16	130	10	30	4	35	13	45	15						
Size of Initial Capital (\$'00's)		200	3.0	3.0	10.0	1.0	36.0	2.0	1.0	4.0	25.0	3.0	30.0	3.0	5.0	2.0	8.0	2.0	3.0	100.0	3.0	3.0	300.0	6.0	150.0	20.0	5.0	5.0	5.0	1.0	10.0	1.0	5.0	12.0	25.0	50.0	10.0	20.0	20.0	50.0	100.0						
Location of Firm																																															
Ownership Status																																															
Changes in Ownership																																															
Principal Products																																															
Number of Active Owners		2	1	2	1	3	2	2	2	2	2	1	1	1	3	2	2	2	1	3	2	1	2	1	2	1	1	1	2	1	1	2	3	1	2	2	3	2	3	2	2	2	2	2	2		

Overall Performance Ranking	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
Variables	AB	AM	E	C	R	AL	X	B	V	O	A	AF	J	W	AC	T	Z	AI	AH	M	S	L	N	D	AD	G	K	AG	AE	H	I	F	Y	F	AJ	AA	U	CA						
Market Orientation:																																												
A: Local																																												
B: National																																												
C: Indirect Export																																												
D: Direct Export																																												
Sources of Finance																																												
Initial	A	B	C	B	A	A	A	C	B	E	D	A	B	A	B	B	E	C	A	B	B	E	A	A	B	A	C	A	B	A	A	A	A	A	A	A	A	A	A	A	A			
Current	A	A	A	D	D	A	A	F	A	D	D	A	A	A	A	A	A	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
Perceived Determinants of Business Success	A	A	A	E	A	B	B	E	A	A	A	B	H	A	B	A	D	C	E	H	J	A	B	B	D	C	E	E	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
Types of Cosira Services Used	B	H	I	B	A	B	I	A	A	B	H	I	B	A	B	A	B	B	H	I	B	B	D	I	B	D	I	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	

Key

Sources of Finance

- A: Family and Friends
- B: Personal/Partners Savings
- C: Gratuity Payments
- D: Bank
- E: Sale of Property
- F: Govt. Credit Agencies
- G: Financial Institutions
- H: Shares and Debentures
- I: Ploughed in Profit

Determinants of Success

- A: Knowledge of Trade
- B: Technical Skill
- C: Confidence in Ability
- D: Adequate finance
- E: Flair to recognise opportunity
- F: Preparedness for challenge
- G: Hard work/Perseverance
- H: Saleable Product
- I: Luck
- J: Integrity

Cosira Services

- A: Book-keeping
- B: Costing and Pricing
- C: Work-study and plant lay-out
- D: Technical/Production
- E: Marketing
- F: Welding Instruction
- G: Exhibitions
- H: Planning Permission
- I: Financial Loans

APPENDIX VI

CORRELATION AND TESTS OF SIGNIFICANCE OF DIFFERENT RANKING METHODS

Ranking Methods	Correlation Value (r)	Student t-test	Level of Significance
<u>A: Overall Performance Ranking and:</u>			
1. Composite growth ranking	0.84	9.62	1%
2. Composite profitability ranking	0.86	10.4	1%
3. Turnover ranking	0.57	5.52	1%
4. Net Profit Ranking	0.69	5.98	1%
5. Net Asset Ranking	0.84	6.14	1%
6. Profit Margin Ranking	0.71	5.77	1%
7. Return on Net Assets Ranking	0.80	6.0	1%
8. Return on Total Assets	0.86	10.25	1%
<u>B. Composite Growth Ranking and</u>			
1. Composite Profitability Ranking	0.51	3.61	1%
2. Turnover Ranking	0.82	5.49	1%
3. Net Profit Ranking	0.88	10.26	1%
4. Net Assets Ranking	0.89	11.97	1%
<u>C. Composite Profitability Ranking and:</u>			
1. Profit Margin Ranking	0.91	12.68	1%
2. Return on Net Assets Ranking	0.93	14.91	1%
3. Return on Total Assets Ranking	0.97	23.09	1%

D. Other Ranking Correlations:

	Correl- ation (r)	Student t-test	Level of Signif- icance
1. Turnover Ranking + Net Profit Ranking	0.65	4.67	1%
2. Turnover Ranking + Net Assets Ranking	0.69	5.24	1%
3. Net Profit Ranking and Net Assets Ranking	0.56	4.04	1%
4. Profit Margin and Return on Net Assets Ranking	0.76	6.73	1%
5. Profit Margin and Return on Total Assets Ranking	0.91	12.68	1%
6. Return on Net Assets Ranking and Return on Total Assets Ranking	0.87	10.66	1%

B. Current Age of Principals

1. 30-39 vs 30 and 39 overall	0.47	3.28	1%
top vs bottom	0.54	2.72	1-2%
2. 35-44 vs 35 and 44 overall	0.22	1.45	10-20%
3. Ranked youngest to oldest	0.25	1.56	10-20%
4. Ranked oldest to youngest	(0.2)	0.91	30-40%

C. Educational and Training Background of Principals

1. High school and above vs below overall	0.29	1.86	5-10%
2. High school and above vs below: top vs bottom	0.23	1.4	30-40%
3. Having apprenticeship training vs none: overall	0.57	4.26	1%
4. Having apprenticeship training vs none: top vs bottom	0.75	4.80	1%

TESTS OF CORRELATION AND TESTS OF SIGNIFICANCE: BETWEEN
RANKED FIRMS AND VARIABLES

Variables	Correlation Value (r)	Student t-test	Level of Significance
<u>A. Age of Principals at Start of Business:</u>			
1. Over 35 vs below	0.21	1.32	10.20%
2. Over 30 vs below	0.09	0.56	50.60%
3. Over 40 vs below	0.20	1.32	10.20%
4. Ranked ages: Oldest to youngest (0.17)		1.06	20.30%
5. Ranked age: Youngest to Oldest Overall*	0.13	0.81	40.50%
6. Ranked age: Youngest to oldest: top vs bottom**	0.10	0.43	60-70%
7. 40-40 vs 30 and 40	0.04	0.21	80.90%
<u>B. Current Age of Principals</u>			
1. 30-39 vs 30 and 39 overall	0.47	3.28	1%
top vs bottom	0.54	2.72	1-2%
2. 35-44 vs 35 and 44 overall	0.22	1.45	10-20%
3. Ranked youngest to oldest	0.25	1.56	10-20%
4. Ranked oldest to youngest (0.2)		0.91	30-40%
<u>C. Educational and Training Background of Principals</u>			
1. High school and above vs below: overall	0.29	1.86	5-10%
2. High school and above vs below: top vs bottom	0.23	1.0	30-40%
3. Having apprenticeship training vs none: overall	0.57	4.26	1%
4. Having apprenticeship training vs none: top vs bottom	0.75	4.80	1%

D. Occupational Background of Principals

1.	Having production background vs others: overall	0.51	3.65	1%
2.	Having production background vs others: top vs bottom	0.67	3.83	1%
3.	Having sales background vs others: overall	0.23	1.45	10-20%
4.	Having sales background vs others: top vs bottom	0.29	1.28	20-30%
5.	Managerial/Supervisory background: overall (0.42)		2.59	1%
6.	Managerial/Supervisory background: top vs bottom (0.32)		2.01	5%
7.	Experience in the line/trade of business: overall	0.37	2.46	1-2%
8.	Experience in the line/trade of business: top vs bottom	0.54	2.72	1-2%

E. Parental Background

1.	Business/Commercial vs others: overall	0.32	2.01	5%
2.	Business/Commercial vs others: top vs bottom	0.45	2.14	2-5%
3.	Craftsman/technical vs others: overall	0.47	3.28	1%
4.	Craftsman/technical vs others: top vs bottom	0.36	1.64	10-20%
5.	Craftsman & business vs. others: overall	0.52	3.75	1%
6.	Craftsman & business vs. others: top vs bottom	0.54	2.72	1-2%

F. Age of Firm (Ranked with youngest first)

1.	Ranked firms by age: overall	0.53	3.92	1%
2.	Ranked firms by age: top vs bottom	0.73	4.52	1%

G. Size of Firm (Ranked with smallest numbers first)

1.	Firms ranked by size (No. of Employees) : Overall	0.55	4.05	1%
2.	Firms ranked by size (No. of Employees) : top vs bottom	0.50	2.45	2-5%

H. Size of Principal's Family

1.	Ranked firms by number of children at start : Overall	0.05	0.30	70%
2.	Ranked firms by number of children at start : top vs bottom	0.64	3.54	1%

I. Type of Firm

1.	Family owned vs not : Overall	0.12	0.74	40-50%
2.	Family owned vs not : top vs bottom	(0.15)	0.64	50-60%
3.	Components producing firms vs others : overall	0.45	3.10	1%
4.	Components producing firms vs others : top vs bottom	0.65	3.62	1%
5.	Manufacturing durable goods vs others : overall	0.14	0.87	30-40%
6.	Manufacturing durable goods vs others : top vs bottom	0.26	1.14	20-30:

J. Degree of Involvement of Principals in Initial Years

1.	Having no financial cushion but with domestic support : overall	0.43	2.93	1%
2.	Having no financial cushion but with domestic support : top vs bottom	0.69	4.06	1%

3.	Absolutely no financial cushion: overall	0.29	1.86	5-10%
4.	Absolutely no financial cushion: top vs bottom	0.51	2.51	2-5%
<u>K. Planning before Starting Business</u>				
1.	Planning, some forms of vs none: overall	0.31	2.01	1-5%
2.	Planning, some forms of vs none: top vs bottom	0.39	1.79	5-10%
<u>L. Location of Firm</u>				
1.	Isolated in village vs other locations : overall	0.23	1.45	10-20%
2.	Within township vs other locations: overall	0.13	0.81	40-50%
3.	Within township vs other locations: top vs bottom	0.15	0.65	50-60%
<u>M. Changes in Ownership</u>				
1.	First generation vs 2nd generation: overall	0.32	2.08	1-5%
2.	First generation vs 2nd generation: top vs bottom	0.56	4.27	1%
3.	Original owner vs changed owner- ship : overall	0.32	2.08	1-5%
4.	Original owner vs changed owner- ship: top vs bottom	0.65	3.62	1%
<u>N. Changes in Locality/Premises</u>				
1.	Non-nomadic vs nomadic : overall	0.25	1.56	<u>10-20%</u>
2.	Non-nomadic vs nomadic : top vs bottom	0.26	1.14	20-30%

O. Nature of Market

1.	Direct Export vs local & national only: overall	0.02	0.12	90%
2.	Direct Export vs local & national only: top vs bottom	0.12	0.51	60-70%
3.	Export direct & indirect vs local/national only: overall	0.21	1.32	10-20%
4.	Export direct & indirect vs local/national only: top/bottom	0.45	2.14	2-5%

P. Sources of Finance

1.	Initial sources - Personal vs borrowings : overall	0.42	2.86	1%
2.	Initial sources - Personal vs borrowings : top vs bottom	0.51	2.51	1%
3.	Current : Borrowed CoSIRA vs Not: overall	0.56	4.15	1%
4.	Current : Borrowed CoSIRA vs Not: top vs bottom	0.57	2.93	1%

Q. Wage Payment System

1.	With bonus vs without : overall	0.39	2.61	1-5%
2.	With bonus vs without : top vs bottom	0.45	2.14	2-5%

R. Management Staff

1.	With management staff vs without: overall	0.02	0.12	90%
2.	With management staff vs without: top vs bottom	0.15	0.65	50-60%

S. Use of Balance Sheets/P & L Account

1.	Used as basis for planning & control : overall	0.51	3.66	1%
2.	Used as basis for planning & control : top vs bottom	0.60	3.18	1%

T. Method of obtaining New Business

1.	Passive vs Active: Overall	0.21	1.32	10-20%
2.	Passive vs Active: top vs bottom	0.17	0.73	40-50%

U. Family Participation

1.	Wife working in firm: overall	0.50	8.56	1%
2.	Wife working in firm: top vs bottom	0.57	3.04	1%
3.	Wife/Son working in firm: overall	0.53	4.05	1%
4.	Wife/Son working in firm: top vs bottom	0.58	3.03	1%

V. Patents Held by Firm

1.	Having patents vs none: overall	0.31	2.01	5-10%
2.	Having patents vs none: top vs bottom	0.60	3.18	1%

W. Pricing Method

1.	Price based on some calculation vs gestimate: overall	0.15	0.93	30-40%
2.	Price based on some calculation vs gestimate: top vs bottom	0.63	3.45	1%
3.	Material & Labour/Machine hour rate: overall	0.34	2.23	1-5%
4.	Material & Labour/Machine hour rate: top vs bottom	0.29	1.28	20-30%

5.	Material & Labour hour rate only: overall	0.11	0.68	40-50%
6.	Material & Labour hour rate only: top vs bottom	0.09	0.38	70-80%
7.	Material & Percentage added: overall	0.30	1.94	5-10%
8.	Material & Percentage added: top vs bottom	0.44	3.01	1%
X.	<u>Reasons for Going into Business</u>			
1.	Include 'money making': overall	0.42	2.86	1%
2.	Include 'money making': top vs bottom	0.61	3.26	1%
3.	Include 'Independence Need': overall	0.33	2.15	1-5%
4.	Include 'Independence Need': top vs bottom	0.47	2.26	2-5%
5.	Active Reasons vs passive: overall	0.36	2.38	1-5%
6.	Active Reasons vs passive: top vs bottom	0.50	2.45	2-5%
Y.	<u>Prime Control Factor</u>			
1.	Output vs target method: overall	0.61	4.74	1%
2.	Output vs target method: top vs bottom	0.75	4.80	1%
3.	Monthly cash-flow method: overall	0.34	2.23	1-5%
4.	Monthly cash-flow method: top vs bottom	0.37	1.69	10-20%
5.	Size & turn round of order book: overall	0.35	2.30	1-5%
6.	Size & Turn round of order book: top vs bottom	0.16	0.69	40-50%
7.	Practising & method vs financial statement: overall	0.57	4.26	1%
8.	Practising & method vs financial statement: top vs bottom	0.69	4.06	1%

Z. Principal's Perceived Personal Contribution

1.	Practical skill : Overall	0.52	3.75	1%
2.	Practical skill : top vs bottom	0.74	4.68	1%
3.	Managerial Ability : Overall	0.17	1.06	20-30%
4.	Managerial Ability : top vs bottom	0.01	0.04	90%
5.	Hardwork & Industry: Overall	0.48	3.37	1%
6.	Hardwork & Industry: top vs bottom	0.42	1.97	5-10%

AA. Principal's Field of Duties

1.	Only two fields vs more: overall	0.26	1.66	5-10%
2.	Only two fields vs more: top vs bottom	0.36	1.64	10-20%
3.	Three fields maximum vs more: overall	0.15	0.94	30-40%
4.	Three fields maximum vs more: top vs bottom	0.19	0.82	40-50%

AB. Personal Objectives in respect of Business

1.	Controlling a business: overall	0.33	2.15	1-5%
2.	Controlling a business: top vs bottom	0.47	2.26	2-5%
3.	Financial Gain: overall	0.35	2.30	1-5%
4.	Financial Gain: top vs bottom	0.35	1.39	10-20%

AC. Attitude Towards Growth

1.	Wants growth: overall	0.50	3.56	1%
2.	Wants growth: top vs bottom	0.74	4.68	1%
3.	More positive for growth: overall	0.48	3.37	1%
4.	More positive for growth: top vs bottom	0.64	3.54	1%

AD. Obstacles to Growth Experienced

1.	Finance <u>no</u> obstacle vs obstacle: overall	0.21	1.32	10-20%
2.	Finance <u>no</u> obstacle vs obstacle: top vs bottom	0.21	0.91	30-40%
3.	Labour/Space as obstacle: overall	(0.04)	0.25	80-90%
4.	Labour/Space as obstacle: top vs bottom	(0.07)	0.30	70-80%

AE. Factors Perceived as helping Growth

1.	Competitiveness : overall	0.37	2.46	1-5%
2.	Competitiveness : top vs bottom	0.56	2.86	1-2%
3.	Service to Clients : overall	0.31	2.01	2-5%
4.	Service to Clients: top vs bottom	0.50	2.45	2-5%
5.	Quality of products/work: overall	0.21	1.32	10-20%
6.	Quality of products/work: top vs bottom	0.21	0.91	30-40%

AF. Factors perceived as Vital for Success of a Business

1.	Technical skill : overall	0.39	2.61	1-5%
2.	Technical skill : top vs bottom	0.50	2.45	2-5%
3.	Knowledge of trade : overall	0.50	3.56	1%
4.	Knowledge of trade : top vs bottom	0.61	3.26	1%
5.	Technical skill & knowledge: overall	0.46	3.19	1%
6.	Technical skill & knowledge: top vs bottom	0.65	3.62	1%
7.	Hardwork : overall	0.07	0.43	60-70%
8.	Hardwork : top vs bottom	0.14	0.60	50-60%
9.	Flair to recognise opportunity: overall	0.30	1.94	5-10%
10.	Flair to recognise opportunity: top vs bottom	0.27	1.19	20-30%

AG. Firms Ranked by Age: and Ranked by:

1. Number of employees : overall	0.47	3.28	1%
2. Number of employees : top vs bottom	0.66	3.24	1%
3. Profitability ranking : overall	0.43	2.93	1%
4. Growth ranking: overall	0.47	3.28	1%

AH. Firm Ranked by Employment: size & ranked by:

1. Composite profitability: overall	0.51	3.66	1%
2. Composite growth: overall	0.38	2.53	1-5%

AI. Overall Composite Ranking and:

1. Firms ranked by Directors' remuneration as percentage of sales turnover : overall	0.44	2.68	1-2%
--	------	------	------

AJ. Use of CoSIRA Assistance

1. Accounting and Pricing vs non-use of : Overall	0.45	3.19	1%
top vs bottom	0.28	1.14	20-30%
2. Planning assistance vs non-use of: Overall	0.42	2.86	1%
top vs bottom	0.53	2.51	2-5%
3. Technical/Production advice vs non-use of: Overall	(0.14)	0.87	30-40%
top vs bottom	(0.20)	0.91	30-40%

AK. Attitude towards use of outside Finance

1. Favour use of vs against use of Overall	0.45	3.0	1%
top vs bottom	0.62	3.26	1%

* Overall: variable tested for total 40 firms

** Top vs bottom: only the ten firms in top quartile vs: ten in bottom quartile.

- 498 -
APPENDIX VII

SUMMARY OF RESULTS OF PREVIOUS EMPIRICAL STUDIES OF
THE RELATIONSHIP BETWEEN PROFITABILITY AND SIZE OF FIRM

RESEARCHER/S*	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
YEAR OF STUDY	29	31	32	34	35	35	37	39	41	46	49	50	63	65	67	68	68	68	69	
COUNTRY STUDIED	19...																			
	U.S.A.										U.K.									
LEVEL OF STUDY	MACRO LEVEL										INDUSTRY LEVEL									
PROFIT RATIO	NUMERATOR										DENOMINATOR									
	PROFIT BEFORE TAX										PROFIT AFTER TAX									
USAGE OF RATIOS	ASSETS										NET WORTH OR EQUITY									
	WEIGHTED RATIOS										UNWEIGHTED RATIOS									
SIZE MEASURE	TOTAL ASSETS										NET WORTH OR EQUITY									
	NET WORTH OR EQUITY										NET INCOME									
COMPANIES INCLUDED	ALL COMPANIES										COMPANIES WITH NET INCOME ONLY									
	INDEPENDENT										POSITIVELY RELATED									
CONCLUSIONS: PROFITABILITY AND SIZE OF FIRM.	POSITIVELY RELATED										NEGATIVELY RELATED									
	COMBINATION										COMBINATION									

- *List of Researchers:
- A) Crum W.L.
 - B) Epstein R.C.
 - C) Summers H.B.
 - D) Epstein R.C.
 - E) Livermore S.
 - F) Paton W.A.
 - G) Bernheim A.L.
 - H) Crum W.L.
 - I) U.S. Temporary National Economic Committee
 - J) McConnell J.L.
 - K) Alexander S.S.
 - L) Osborn R.C.
 - M) Stekler H.O.
 - N) U.S. Senate
 - O) Hall M. and Weiss L.
 - P) Singh A. and Whittington G.
 - Q) Samuels J.M. and Smythe D.J.
 - R) Sherman H.J.
 - S) Marcus N.

Source: Hart, P.E. and Mellors, J. (1969)

APPENDIX VIII

SUMMARY OF FINDINGS IN RELATION TO OTHER STUDIES

<u>VARIABLES</u>	<u>RESULTS OF PRESENT ANALYSIS</u>	<u>OTHER STUDIES</u>
	(Direct sample unless otherwise stated)	
1. Size of Firm	The firms in the lower end of the size-scale performed better	Boswell : similar result Also Crum, Livermore. Collins et al, Hart, Stekler, Lydall all found lack of association. Summers, Bernheim, and Paton found negative correlation (See Appendix VII)
2. Age of Principals	Age at start of business: No correlation obtained Current Age: Principals in the middle-age group (30-39) performed better than either the younger or older.	Matthews: found principals in middle-age bracket, at start of business (30-39) performed better than either younger or older. Mayer et el found inverse relationship between current age and performance.
3. Educational background of principals.	Principals with apprenticeship training were associated with success ranking. No other relationship obtained for other types of education. Indirect sample: University educated principals tended to preponderate in the successful group.	Matthews, : Fox = Both found no significant associationship. Mayer et al: Inverse relationship between education and business survival. Hoad et al: found positive association between levels of education and success.

4. Occupational background	Production/technical background associated with success. Some indication of inverse relationship between administrative background and success	Matthews : No association obtained.
	Indirect sample: Sales/marketing experience associated with success.	Hoad et al : Management Experience has positive link with success.
5. Previous experience in the line/trade of present business.	Positive link obtained with performance.	Hoad et al : No link.
		Dickerson et al: Negative correlation between previous experience in the trade and business survival.
6. Family Factors:		
a) Family size	Slight significance between size and performance.	Matthews: found conclusive link between the two.
b) Family participation	Firms where wives and/or children participated actively in the business performed better.	No other studies have been found to analyse this factor.
7. Parental background	Principals with 'business or technical parents performed better than those having other types of parents.	Matthews: did not find any relationship.
8. Motives for going into business.	Principals with acquisitory motives performed better. To a lesser extent 'independence-motivated' principals also performed better.	Mayer et al: found that firms started because of results of unemployment of founders, or for earning livelihood performed poorly.
		Matthews: no link
9. Objective in respects of business.	'Power-goal' i.e. satisfaction of controlling a business and aggrandizement-goal showed correlated with performance. Objective of ensuring the future for children -	Matthews: no link. Mayer et al: Conclusive relationship between survival rate and objective, esp for future.

10. Principals' extent of duties.

Only low correlation was obtained between performance and specialisation of duties.

11. Principals' perception and attitudes.

a) Personal roles: Principals perceiving 'technical skills' and 'hard-work' as their chief contribution performed better while those who perceived 'financial' as contribution performed poorly.

b) Perceived determinants of business success

Strong association with performance for those who perceived 'knowledge of trade' and 'technical skills' as principal determinants.

c) Attitudes towards growth.

High positive correlation between desire for growth and performance ranking.

Lydall: found correlation between past growth and attitude to future growth.

Boswell: link between attitude to future growth and current performance.

11. Degree of principals' involvement at the start.

Extent of employment and financial stake in the business correlated with performance ranking i.e. principals without financial cushion to fall back upon performed better.

Also correlation between having domestic support e.g. working part-time, partners' or wife working elsewhere, and performance.

Mayer et al: better performance among those firms whose principals worked either part or full-time elsewhere, and therefore did not depend on business for personal income.

Hoad et al: Positive correlation between full-time involvement and success, but no difference between having and not having financial cushion.

12. Age of Firm. Strong positive correlation between youthfulness and performance. McGuire: Younger firms grew more rapidly. Deeks: "The older the firm the greater the likelihood of it being static." Boswell: conclusive evident of link between youthfulness and performance.
13. Types of business. Significant association between component-producing activities and performance. Indirect sample: link between product-manufacturing and performance, while suggested link between wood, plastic and rubber-goods firms and low-success. Hoad et al: Higher failure rate among manufacturing firms. Also found that processor and producers of parts and components almost never failed.
14. Ownership patterns. No association between family ownership and performance. Indirect sample: Family owned firms tended to be associated with success, while partnership with low-success. Boswell: Link between entrepreneurial-owned firms and performance.
15. Patent Development. Firms owning patent rights made a better showing in the performance analysis.
16. Initial Capital
- a) Size Firms with shoe-string capital performed better than well-endowed firms. Mayer et al: Failure rates were higher among the firms with a 'shoe-string operation". Hoad et al: Successful firms tended to start operation on stronger financial base. (Also found failure rates were high in the medium-capital firms)
- b) Source Firms utilising personal finance to start business performed better than those which depended on other sources.

17. Current Finance. Firms that used governmental credit services performed better.
18. Changes effected by Firms:
- a) Ownership Stable ownership (founder-owned or first generation ownership) performed better than firms which had undergone some ownership changes. Deeks; Boswell: Both found strong links between founder-owned firms and performance.
- b) Locality and premises. No clear-cut association.
19. Planning before the start of business. Principals which undertook some forms of planning before establishing the firms performed better. Hoad et al: found that greater amount of planning activity preceded the establishment of successful firms.
20. Specialist staff. No association ascertained between the presence or absence of specialists in firms. Indirect sample: association obtained.
21. Wage-payment Direct positive correlation between presence of bonus-payment and performance. Matthews: similar results.
22. Pricing method. Firms which practised some formal pricing system performed better than those relying on external standards or 'guesstimating'. McGuire; Matthews: did not find any such relationship. Indirect sample: similar results.
23. Planning and Control: Firms practising some formal control method performed better. Fox: showed that companies which lacked planning and control procedures tended to be associated with failure. Firms that used financial statements as basis for planning and control also performed better.

24. Methods of getting business. No link between the various strategies and performance. Matthews; Hoad et al also did not obtain any relationship.
25. Growth factors: Link with firms having competitive strengths in price and services. Lawyer: production competitiveness especially quality of products were most important in determining performance. Price competitiveness comes low, but service comes third.
26. Market factors. Exporting (direct and indirect) firms were placed higher on the performance ranking.
27. Location of firm. No link between the types of location and performance.
28. Role of external agencies (CoSIRA) The use of CoSIRA services especially management advice (accounting) and credit services, was found to be facilitative to the performance of the firms. Woodruff et al: found that the unsuccessful firms in this sample relied less on outside assistance than did their counterparts in the successful category. McGuire: firms which received governmental aids were growing more rapidly than those which did not.