1. INTRODUCTION

This report covers the analysis of a survey of small and tiny enterprises in some of the villages of Bagepalli taluk where ADATS works.

The data collection was done by the Field Staff of Bagepalli Coolie Sangha (BCS) with minimum support from ADATS and INTERVENTION executives and specialists. The research design was created by Mr. B.L.Parthasarathy of INTERVENTION, while the field team was co-ordinated by Shankar of ADATS. The data analysis was carried out by Usha Kumari and Rajendra Doctor of INTERVENTION (INDIA) PVT. LTD.

According to the original brief from the client, the purpose of the survey was to gain an understanding of the nature and profitability of existing enterprises for Strategic Planning for the CCF (Coolie Credit Fund). At the planning stage, it was assumed that this survey would identify the most successful enterprises and provide insights on relationships between successful enterprises, and various factors such as family size, location, costs of production etc.

We pointed out that this is a "Command Economy" approach, which tries to understand what enterprises "are successful" (produce goods which are in demand) and then financially and possibly managerially "assist" would-be entrepreneurs to go into production.

Unfortunately, experience with the Command model in India teaches us that decisions on what to produce, when to produce, how to produce - must be taken by the entrepreneur if the enterprise should be successful.

It is also unfortunate that everybody cannot be an entrepreneur. Risk-taking is at the hear of entrepreneurship, and the entrepreneur must also possess skills of planning and organisation. Risk-avoiders cannot be prodded from an administrative platform to engage in entrepreneurial activities and succeed. We need to come to terms with the fact that only some individuals will show entrepreneurial skills and attitudes, while the majority are content to be wage employees who do not have to take any risk. This is especially so in a traditional agricultural economy in transition as is the case in Bagepalli.

It was decided to revise the objective of the survey, in the larger context of the work of ADATS in Bagepalli. This mid-course correction was possible because this survey was part of a 4 month "Accompaniment" consultancy during which we had adequate time for a careful and sensitive understanding of the long-term goals of ADATS. It was agreed that the survey would be used as a device around which discussions on project sustainability could be generated.

2. CONCLUSIONS & RECOMMENDATIONS. CONCLUSIONS & RECOMMENDATIONS. CONCLUSIONS & RECOMMENDATIONS

Each conclusion documented in this section is the product of considerable reflection and discussion with the client, and is based on a long-standing professional association with ADATS and the Bagepalli Coolie Sangha (BCS), going back to 1985.

The recommendations are practical responses to insights emerging from the analysis, and are based on an interactive judgement of what is needed and what is possible.

2.1. THE SAMPLE.1. THE SAMPLE.1. THE SAMPLE

The sampling exercise has several technical failings, but it gave ADATS staff and BCS officials an opportunity to consider the monumental problem of using the organisation and discipline of the BCS for nudging a feudal agricultural economy into grappling with the realities of liberalisation and marketisation.

A very clear objective of the exercise was to demystify "science" and create conditions for the democratisation of information, through frequent interactions with the field staff. A future objective is to train the field staff to collect and analyse their own data, which will create a greater ownership of the results of the analysis.

2.2. ENTERPRISES IN BAGEPALLI.2. ENTERPRISES IN BAGEPALLI.2. ENTERPRISES IN BAGEPALLI

"Enterprise" appears to be an euphemism for "Off-Farm Activity". Most of the "enterprises" surveyed are traditional occupations, with some being caste-based occupations. Two occupations can be deemed "modern" on the basis of the technology used. These are, Video Equipment hire and Electrician's trade. Both the cases surveyed appear to be doing well. All these occupations provide goods and services for "internal demand" within a well-defined geographical area, and may be classified as "rural to rural" marketing.

There are four "New" occupations - Cocoon Rearing, Cocoon Plates, Chandranki (Sericulture) and Brickmaking, which are based on external demand.

Most of these occupations operate as single person establishments using family labour as required. These activities can be made a little more profitable with timely credit, purchasing and marketing support where required. Unfortunately, the absorption capacity of most of these one-person off-farm activities is very low, with the possible exception of brickmaking, a relatively low-skill activity which has good potential. Most of these activities have also little or no potential for creating new jobs.

Many of these occupations are, indeed, part of the Coolies' livelihood systems, which depend on wage income for three months of the year. It is highly doubtful if these part-time occupations can benefit from large infusions of credit. We can see the principle of "Limiting Factors" where increasing one factor while keeping other factors constant would lead to a situation where further growth is limited.

In these circumstances, our considered recommendation is that we begin to identify areas of external demand which can be satisfied through production systems based on some of the advantages that the constituents of ADATS/BCS have - i.e. organisation, discipline infrastructure, proximity to Bangalore city, and all the managerial and technical inputs that they may require.

It is most important to understand that the search for external demand-based

industries is not a negation of the off-farm activities we have come across in this survey. We need to look at ways of improving the availability of credit, which appears to be the only factor of production which is scarce.

However, some important policy decisions need to be taken about the structuring for new production activities. It has been observed earlier in this report that everybody cannot be an entrepreneur. If only a few entrepreneurs who have attained some degree of success and mastered the skills of credit management and repayment are to be encouraged to scale up their activities or get into new enterprises, there will be a serious problem of equal opportunity.

Under the circumstances, it would appear that the only way out is for ADATS to be the entrepreneur, and the BCS be the owner of the enterprise or portfolio of investments. Professional managers can be hired to run the enterprises and undertake the critical marketing activities.

Once such enterprises are identified and commissioned, a number of peripheral activities and jobs will be created which will help to introduce the industrial and business culture to the region.

2.3. CREDIT FOR OFF-FARM ACTIVITIES.3. CREDIT FOR OFF-FARM ACTIVITIES.3. CREDIT FOR OFF-FARM ACTIVITIES

From the responses on credit, it would appear that there is a certain amount of fuzziness about credit and the cost of credit. On second thoughts it is possible that the fuzziness is the result of our perception and the "Government type" research questionnaire we administered.

We think it would be useful to initiate a discussion on the concept of cost of money with members of the Coolie Sangha. This discussion should also include the whole gamut of "Transaction Costs". Do coolies have to incur additional transaction costs in terms of "speed money", gifts, sexual favours and other personal favours? All these might be termed "Extra Legal Costs".

Apart from Banks and Influential Individuals, BCS coolies frequently approach Officials of Public Agencies set up for the distribution of Public Goods. From a recent experience of the BCS, it is clear that large amounts intended for developmental expenditure can be siphoned off by corrupt officials in collusion with elected "Representatives of the People".

We think it is most important that we understand and document in detail the "rent-seeking" behaviour of these officials, as this will give us an understanding of the level of inefficiency of distribution of "free" public goods and the market clearing responses of public officials who function as discriminating monopolists.

2.4. MARKETING.4. MARKETING.4. MARKETING

From our experience, NGO attempts at enterprise organisation flounder at the post-production stage. This is because Marketing is viewed as the cutting edge of the capitalist

system, and for ideological reasons, it tends to be the most under-rated function. And yet it is the most critical function. It is most important that ADATS/BCS have access to a good marketing facility in Bangalore city. A facility in which they have ownership, and a facility in which their own staff can have training and exposure.

Without this facility, ADATS/BCS will face high costs of marketing which will make production activities unviable. The exposure to the market will provide ADATS/BCS with the feedback from the market which will determine what needs to be produced and how the customers would like to have them. Branding and development of Brands is at the heart of the Marketing process. ADATS/BCS could build it's own marketing department, although this could raise difficulties in non-compatibility of salaries and ideology. In such situations, organisations buy skills through mergers, acquisitions, or strategic alliances, (which are low-commitment in terms of investment and risk).

3. SURVEY OF ENTERPRISES IN BAGEPALLI. SURVEY OF ENTERPRISES IN BAGEPALLI13. SURVEY OF ENTERPRISES IN BAGEPALLI

The survey which was begun in December 1995 was completed in a month, and is a judgmental sample consisting of 89 records.

Of these, 61 sample units were from Chelur, 18 from the G-57 area, 9 from the Gulur area and 1 from the Julpalya area. Four Clusters (5,11,12 and 17) account for more than half (57.3%) of all the samples.

There was some difficulty in collection of data, as non-CCF members were not co-operative.

For the purposes of analysis, we defined "TINY" enterprises (Investment Less Than Rs.4,000) and "SMALL" enterprises (Investment Greater Than or Equal to Rs.4,000).

The majority of the respondents (70%) reported family sizes of 4-8 members. The family membership in the two categories were as follows:

FAMILY	TINY	SMALL	TOTAL
Male	81	112	193
Female	72	98	170
Children (Both Sexes)	99	123	222
T O T A L	**252**	**333**	**585**

The Female to Male Ratio is 89 females to 100 males in the TINY category, while it is slightly more adverse in the SMALL category with 88 females to 100 males. In the TINY category, there are 1.4 children per female and in the SMALL category there are 1.3 children per female. In the absence of additional supporting data, it is not possible to draw any inference from this statistic.

3.1. TYPES OF ENTERPRISES.1. TYPES OF ENTERPRISES.1. TYPES OF ENTERPRISES

A total of 30 different enterprises were sampled. They can be categorised as follows:

Types of enterprises in the ***Manufacturing/Repair*** category are, Blacksmithy, Brickmaking, Footwear, Palm Mat Weaving, Pottery, Leaf Plate Making, and Cocoon Rearing.

In the ***Process*** category, Groundnut oil and Flour Mill are the only two enterprises.

Trade category of enterprises included Grocery/Petty Shop, Stone Cutting, Bullocks/Sheep/Pig trading, Tamarind/Shikakai/Groundnut trading and Vegetable business.

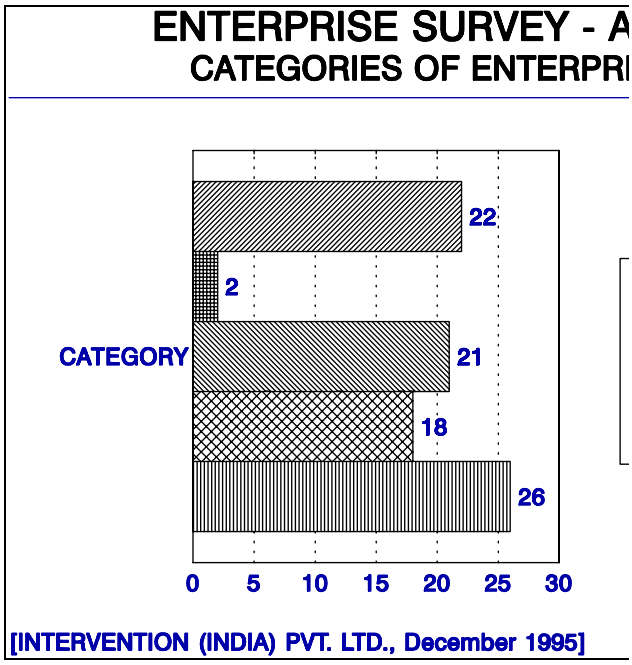

Figure 1

We have enterprises like Electrician, Hair Cutting, Hotel, Laundry, Tailor, Video Equipment hire, Cycle Repair, Masonry, Carpentry and Bullock Cart Hire under the ***Service*** Category.

The types of enterprises included in the Allied Activities (Off Farm) category are, Dairy, Goat/Sheep rearing, Piglets, and Poultry.

3.2. ENTERPRISES IN TINY & SMALL CATEGORIES.2. ENTERPRISES IN TINY & SMALL CATEGORIES.2. ENTERPRISES IN TINY & SMALL CATEGORIES

An analysis of the 30 different enterprises according to TINY and SMALL Categories is presented in the table below:

TINY (< Rs. 4,000)		BOTH		SMALL (>=Rs.4,000)	
Enterprise Sampled	No.	Enterprise Sampled	No.	Enterprise Sampled	No.

Blacksmithy	2	Cocoon Rearing	9	Brick Making	4
Footwear	1	Grocery	11	Leaf Plates	1
Palm Mat Weaving	1	Bullocks/Sheep	3	Cocoon Plates	1
Pottery	2	Tamarind/Shikakai/G.Nut	5	Chandranki	1
Edible (G.Nut) Oil	1	Tailor	5	Tamarind	1
Stone Cutting	1	Dairy	8	Electrician	1
Vegetable Business	1	Goat/Sheep Rearing	11	Haircutting Saloon	1
Laundry	3	Piglets	6	Hotel	1
Masonry	2			Video Equipment	1
Poultry	1			Cycle Repair	1
				Carpentry	1
				Bullock Cart Hire	2
TOTAL	**15**		**58**		**16**

It can be seen that almost all of the 30 "enterprises" are traditional occupations. Many of the enterprises like Footwear, Pottery, Stone Cutting, Laundry (read Dhobi), Masonry, Tailor, Goat/Sheep Rearing, Hair Cutting and Carpentry (9/30=33%) are caste-based occupations. The only enterpises which can be called "modern" are, Video Equipment and Electrician (2/30=7%), although Cocoon Rearing, Cocoon Plates, Chandranki and Brick Making are relatively "new" off-farm enterprises, based on external demand.

Only 1 of the "enterprise" owners had had any formal training (Tailor), and only 2 of them (Brick Making & Cycle Repair) had had Job Apprenticeships. Twenty nine (of the 89 = 32.58%) had a "traditional" background, while fifty five of them (61.8%) said they were "self-taught".

The reason why some enterprises have fallen in the "BOTH" category is clearly because more units were sampled (58/89=65%) and therefore presented a greater range of investment. Particularly in the SMALL category, only 16 units covering 12 enterprises have been sampled. In general, the investment amounts range from Rs.4,000 to Rs.17,000. It would be very unwise to make any inferences from this result.

The range of investment levels in the BOTH category are given in the table below:

ENTERPRISE	**Units Sampled**	**Range of Investment in Rupees**

Cocoon Rearing	9	2,000-15,000
Grocery/Petty Shop	11	1,000-20,000
Bullocks/Sheep	3	2,000-10,000
Tamarind/Shikakai/G.Nut	5	600-10,000
Tailor	5	1,500-7,000
Dairy	8	1,500-12,000
Goat/Sheep Rearing	11	250-10,000
Piglets	6	500-5000
TOTAL	**58**	

What level of investment do we have in the SMALL category? The table below gives the Average investment in each of the enterprises in that category.

ENTERPRISE	**Units Sampled**	**Average Investment in Rupees**
Brickmaking	4	12,525
Leaf Plates	1	10,000
Cocoon Plates	1	9,000
Chandranki	1	8,000
Tamarind	1	17,000
Electrician	1	50,000
Haircutting Saloon	1	4,000
Hotel	1	5,000
Video Equipment	1	17,000
Cycle Repair	1	11,000
Carpentry	1	4,000
Bullock Cart Hire	2	10,250

TOTAL	16	

3.3. ENTERPRISE OPERATION.3. ENTERPRISE OPERATION.3. ENTERPRISE OPERATION

More than half (51.69%) of the enterprises operated on a daily cycle, while 18 of them (20.22%) reported that they operate on an annual cycle, defined by revenue inflows.

While almost two thirds (64.04%) of the respondents said their unit had been operating for the last 1-5 years, and 9 of the respondents said they had been in operation for 10 years, all the others said their "enterprises" had been in existence for 15 to 50 years, suggesting caste-based occupations.

The overwhelming majority, 74 out of 89, (83.15%) operated from owned accommodation, while 9 respondents said they used rented accommodation.

Forty one respondents (46.07%) ran their businesses on their own capital, while 16 of them (17.98%) reported that their capital came from CCF. Six respondents got their capital from a bank, while 2 got it from relatives and 10 of them got their capital from Money Lenders.

Most of the respondents (65/89 or 73.03%) reported that their enterprise relied on their labour alone, while 11 of them (12.36%) had an extra person to help.

Forty one of the 89 respondents used their own money for investment and naturally did not pay any interest costs. However, six others, including one respondent who had borrowed money from the Bank, and two from Money lenders claimed they paid no interest. Five individuals said they paid 3% interest to CCF while 7 of them said they paid 5%, and 3 said they paid 10% to CCF. Reported bank interest payments showed 5%, 6%, 12% and 20%. We have to conclude that claims of interest paid appear to be inaccurate.

It is encouraging to see that 76 of the 89 respondents (86%) feel that they can expand their business. Five of them think that their business prospects are declining - there were one respondent each operating the following enterprises - Pottery, Laundry (Dhobi), Grocery/Shop, Goat/Sheep Rearing and Palm Mat Weaving. We cannot make any definitive conclusion from this negative report except that it is the experience of some individual respondents, which is as it should be in world of competitive business. However, we do need to be prepared for the extinction of some caste-based occupations, and others like pottery and palm-mat weaving where cheaper modern materials like plastic will prevail.

It is significant that while two thirds (59) of the respondents said that their additional requirement was Investment and/or Working Capital, only 1 asked for Training Inputs in addition, and nobody asked for Technical Guidance.

4. STATISTICAL ANALYSIS OF SURVEY DATA. STATISTICAL ANALYSIS OF SURVEY DATA14. STATISTICAL ANALYSIS OF SURVEY DATA

4.1. BUSINESS INVESTMENT.1. BUSINESS INVESTMENT.1. BUSINESS INVESTMENT

The Frequency Distribution of Business Investment in various enterprises is multimodal and positively skewed. *(This means that it is not a "normal" distribution with most values clustered in the centre with fewer high and low values at both extremes)*.

The Average (Mean) investment *(central value around which other values are clustered)* is Rs.6,412.36 (n=89), although the Median *(yet another measure of central tendency, which, unlike the Average or Mean, is not influenced by extreme values)* value, of Rs.5,000, is also the Modal *(Most frequently occurring value)* value. The Standard Deviation of Rs.7,963.55 shows the scatter of responses concerning Business Investment.

After some experimentation, if we decide to take Rs.4,000 as a cut-off point, we can define all investments below Rs.4,000 as "Tiny" and all investments equal to or over Rs.4,000 as "Small". There are 38 "Tiny" Investments and 51 "Small" Investments.

The table presented overleaf shows the summary statistics of INVESTMENT, or the overall responses on the amount invested, "SMALL", which shows the summary statistics of investments greater than or equal to Rs.4,000, and "TINY", for investments less than Rs.4,000.

We see that the Average = 10,125.50 and Standard Deviation = 8,833.12 in the SMALL set (51 items), and in the TINY set (38 items) with Average = 1428.95, the Standard Deviation is considerably lower at 940.57.

INVESTMENT IN SMALL & TINY ENTERPRISES

SUMMARY STATISTICS

Variable:	INVESTMENT	SMALL	TINY
Sample size	89	51	38
Average	6412.36	10125.5	1428.95
Median	5000	7100	1000
Mode	5000	5000	2000
Geometric mean	8204.21		
Variance	6.34181E7	7.80239E7	884680
Standard deviation	7963.55	8833.12	940.574
Standard error	844.134	1236.88	152.581
Minimum	0	4000	0

Maximum	50000	50000	3500
Range	50000	46000	3500
Lower quartile	2000	5000	600
Upper quartile	8000	11000	2000
Interquartile range	6000	6000	1400
Skewness	3.38171	3.2025	0.362311
Standardized skewness	13.0244	9.33681	0.911795
Kurtosis	15.0146	11.8318	-0.785697
Standardized kurtosis	28.9137	17.2477	-0.988647

The data distribution of the overall INVESTMENT data set is shown in the figure below:

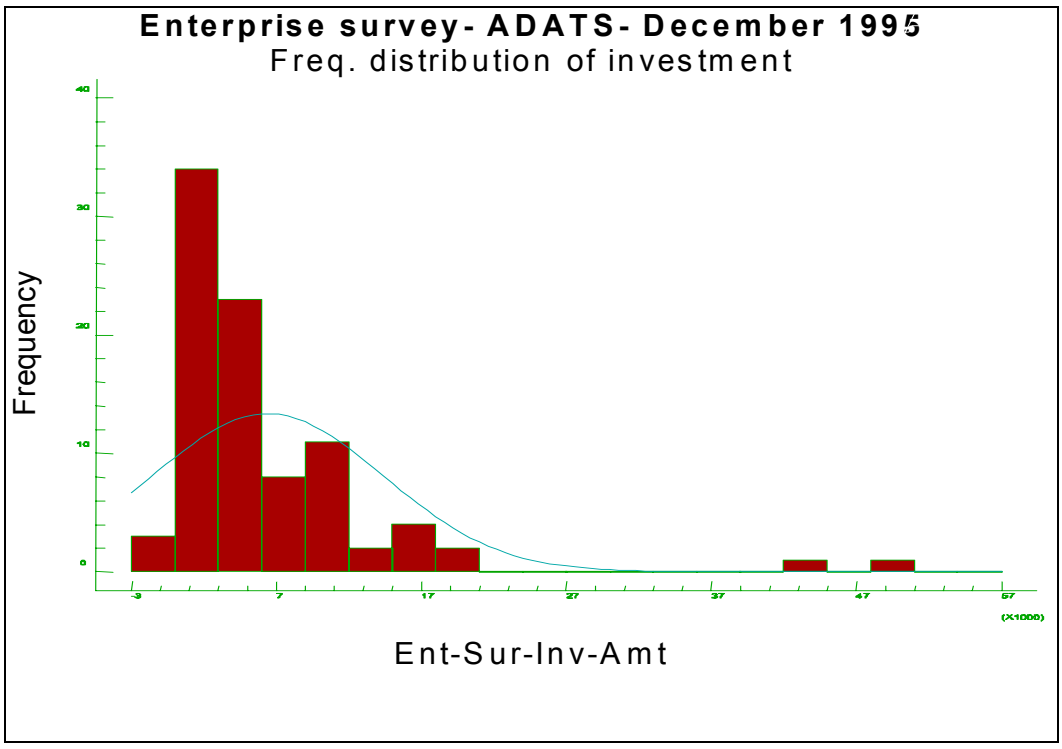

Figure 2 (89 Items)

The distributions of the TINY and SMALL data sets is given in the figures

below:

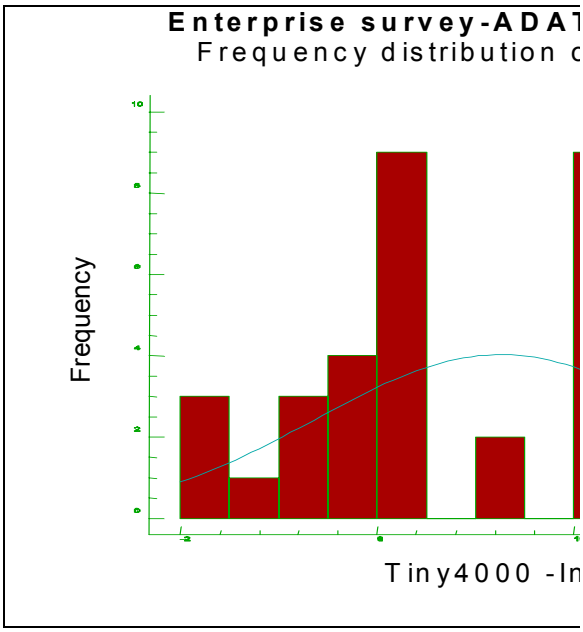

Figure 3 (38 Items)

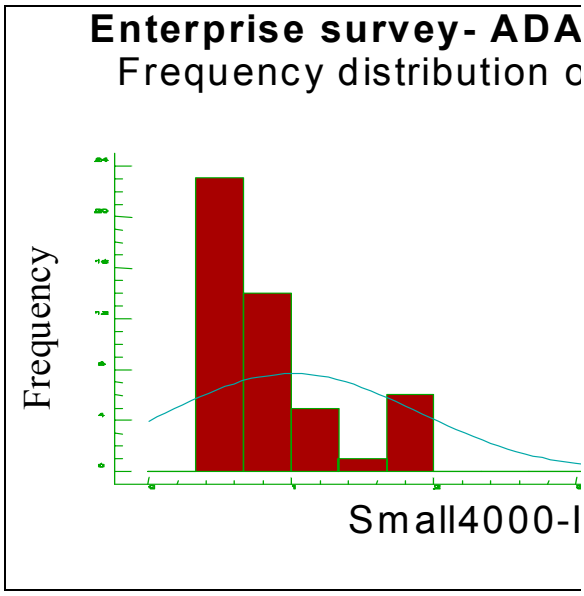

Figure 4 (51 Items)

Despite the lower Standard Deviation, the distribution of the TINY dataset is *platykurtic* (flat-topped) compared with the distribution of the SMALL dataset which is *leptokurtic* (peaked).

In a Normal Distribution, Kurtosis (The measure of the peakedness of a distribution) is zero. Kurtosis is positive for a Leptokurtic distribution and negative for a Platykurtic distribution.

We see from the table of summary statistics on page 11 that for the TINY dataset, Kurtosis = -0.785697 (negative) and for the SMALL dataset, Kurtosis = 11.8318 (postive).

Probably the best way to explain the significance of the shape of a distribution is by taking the analogy of the economic status of a country. It is possible to define development in terms of a wide band of middle class people. In such a case, the distribution would be flat topped, as in the case of the TINY data, where the size of investment is about the same for most individuals.

In countries where income is controlled by a few individuals, the disparity between rich and poor would be very great, and the data would show a highly peaked curve showing a smaller wedge of middle class. In the SMALL data, there are some very large investments and some very small (close to the cut-off point of Rs.4,000).

The Median is a measure of central tendency, which is unaffected by very small or very large values. The Mode is the most frequently occurring value.

The Standard Deviation is a measure of the spread of data. A data set with a small Standard Deviation is tightly clustered together while a data set with a large Standard Deviation indicates a wide scatter of values.

4.2. PERFORMANCE & PROFITABILITY.2. PERFORMANCE & PROFITABILITY.2. PERFORMANCE & PROFITABILITY

If Asset Turnover is used to measure performance, it would appear that SMALL enterprises are doing better than TINY enterprises. Please see chart below:

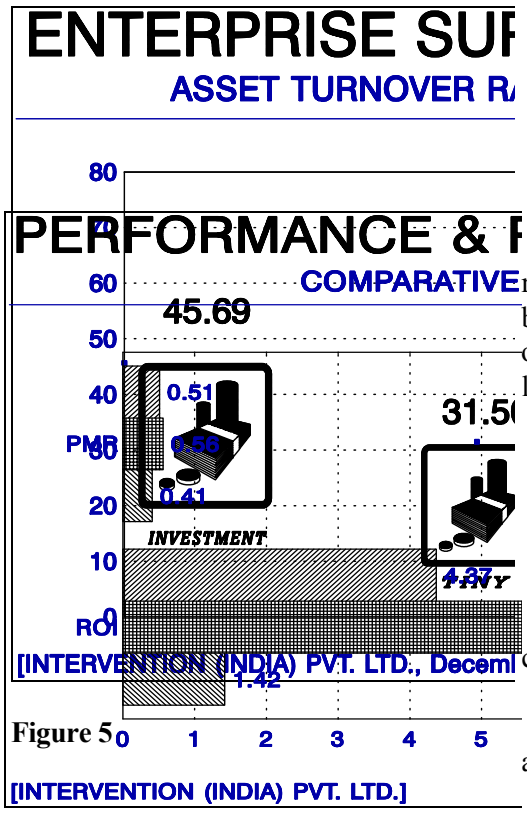

Figure 5

However, both Profit Margin Ratio and Return Investment show the TINY enterprises in a better light than the SMALL enterprises.

We have to conclude that the self-employed "TINY" enterprise shows better return on assets and Profit Margin because by definition, it employs little or no assets and relies on individual labour.

4.3. SOURCES OF INVESTMENT.3. SOURCES OF INVESTMENT.3. SOURCES OF INVESTMENT

Where do entrepreneurs get the capital to make their investments? This question was asked separately for the SMALL segment and the TINY segment.

Figure 6

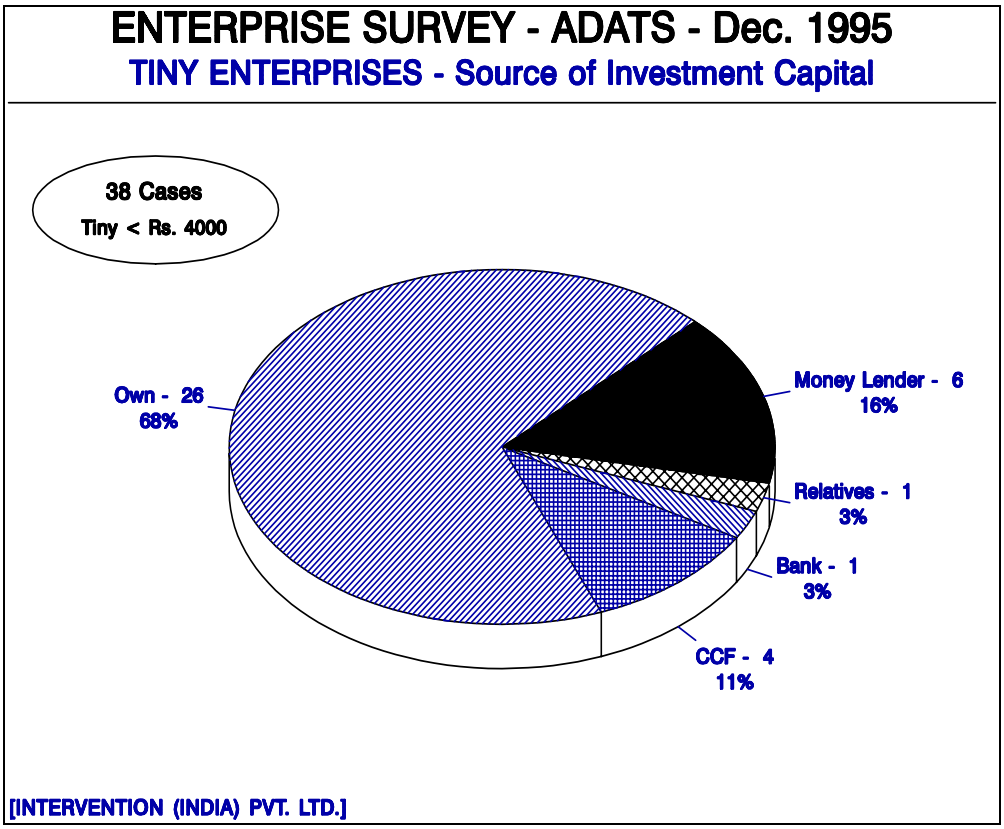

Figure 7

More than a third of the enterprises in the TINY category (Fig 7) relied on "own" capital, although 16% said they rely on Money Lenders while 11% went to the CCF. Only one enterprise said it went to the bank.

The pie-chart below shows the sources of Investment Capital for SMALL enterprises. Compared with the TINY category, there is less reliance on "own" capital, at 29%.

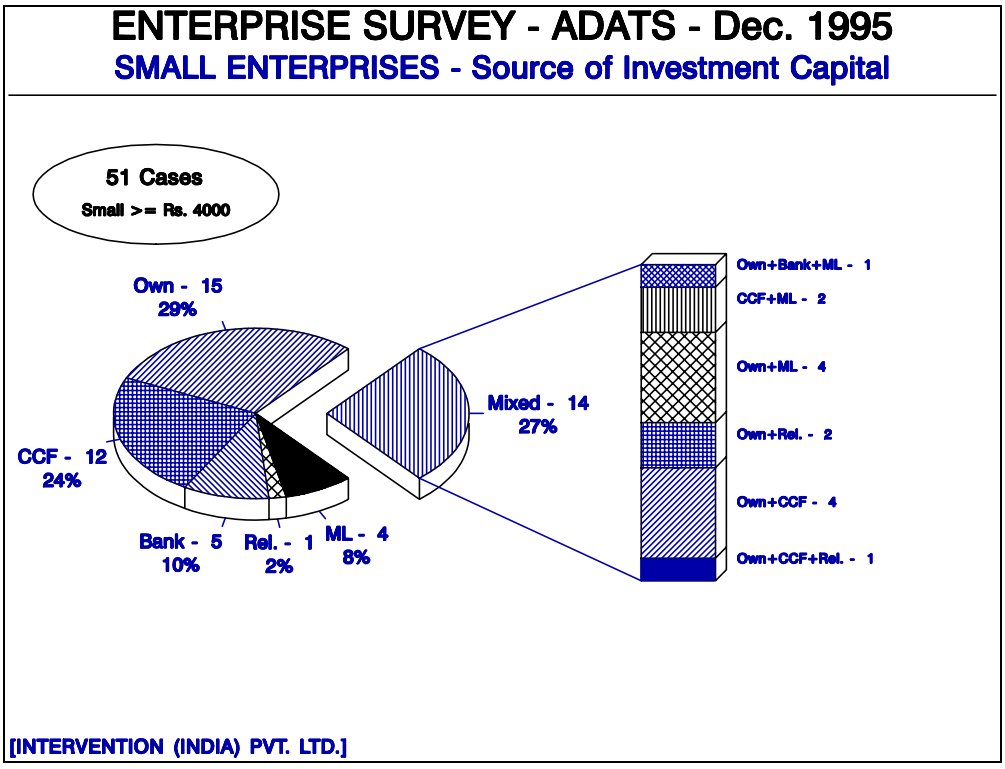

Figure 8

We see that in addition to CCF, Bank, Relatives, and Money Lenders, 14 enterprises reported "mixed" sources of capital, which highlights the importance of credit in this category.

4.4. CORRELATIONS BETWEEN VARIABLES.4. CORRELATIONS BETWEEN VARIABLES.4. CORRELATIONS BETWEEN VARIABLES

Correlation measures the *Degree of Association* between two variables. If we were to correlate the age of employees with the number of years of service, we are likely to get a very strong correlation. The strength of a relationship is normally measured by the coefficient of correlation, whose values range from +1 for perfect positive correlation to -1 for perfect negative correlation.

The average age of SMALL Enterprises is 5 years, while the TINY Enterprises show an average of 10 years. While 73% of SMALL Enterprises were started in the last 5 years. only 53% of TINY enterprises were started in the last 5 years. However, the correlation between these variables - Years of Operation and TINY/SMALL is rather weak at r=0.25892.

None of the SMALL enterprises reported using child labour, although one TINY enterprise (one of the four Tailoring enterprises) reported the use of child labour.

There is a very strong correlation (r=0.88866) between the Income from Enterprises and Total Income of the units surveyed. The correlation between the Income from Agriculture and Total Income is not nearly so impressive at r=0.40466.

There is a mild correlation between Cost of Production and Females in the family (r=0.30791), as there is between Revenue and Females in the family (r=0.32047).

The correlation between Female Manpower and Income from Other Sources is strong at r=0.73600. The corresponding correlation coefficient for Male Manpower is 0.65772.

Both the Cost of Production and the Revenue are moderately correlated with Interest.

In the SMALL dataset, there is a very strong correlation between ROI (Return on Investment) and Income from Enterprise (r=0.91554), whereas the corresponding correlation in the TINY dataset is considerably weaker (r=0.30141). The correlation between Total Income and Income from Enterprise is very strong (r=0.90481) for the SMALL set whereas the corresponding correlation is less strong in the TINY set (r=0.83487). This reinforces what we already know, that TINY enterprises are complementary to agriculture which is an important source of income. The correlation between Total Income and Income from Agriculture is moderate at r=0.47256 for the TINY set, while the corresponding correlation for the SMALL set is r=0.38697.