APPENDIX A

GROWTH OF ENTREPRENEURSHIP IN SMALL SCALE INDUSTRIES

(A STUDY WITH REFERENCE TO PUDUKKOTTAI DISTRICT)

INTERVIEW SCHEDULE

IDENTIFICATION AND BACKGROUND OF ENTREPRENEUR

1. Name and Address (Seal may be affixed) :

2. Social Background : FC/BC/MBC/SC/ST

3. Sex : M/F

4. Age :

5. Place of birth/Town and District :

6. Educational qualification and Training (if any) :

7. Did you have any previous experience in line of business before you started the present venture : Yes/No

8. If 'Yes' (tick the applicable alternative) :
   i) In the same line.
   ii) In a related field
   iii) In a different field

9. Details of any business industrial/managerial training undergone if any
II. GENERAL INFORMATION ABOUT THE UNIT:

1. Name and Address of the Enterprise (If necessary seal may be affixed):  

2. Year of establishment:  

3. Location of the unit:  
   a) Industrial Estate  
   b) Other area  

4. Type of ownership  
   (Please tick the relevant box)  
   :  
   a. ( ) Sole  
   b. ( ) Partnership  
   c. ( ) Pvt. Ltd. Co.  
      (No.of members)  
   d. ( ) Public Ltd.  
      Co. (No.of members)  
   e. ( ) Co-operative Society  
      (No.of members)  

   i) Number of Partners  
     :  

   ii) Number of family members in partnership  

5. Please mention the factors which led to the present location of the unit: (Please rank your choice as 1,2,3,...upto 5)  

   ( ) Nearer to residence  
   ( ) Own land  
   ( ) Established Business  
   ( ) Absence of Competition  
   ( ) Infrastructural facilities  
   ( ) Political pressure - to open here  
   ( ) Availability of raw materials/labour/power/transportation  
   ( ) Facilities offered by promotional agencies  
   ( ) Good demand/market for the product  
   ( ) Others if any
6. Nature of the unit : ( ) Manufacturing ( ) Assembling ( ) Processing ( ) Service ( ) Any combination of the above

7. Name of the Product :

8. Does your unit have a parent/subsidiary unit? : Yes/No

9. If yes, : Parent / / Subsidiary / /

10. Does it possess a shed/Building of its own/or is it rented : Own/Rented

11. Is it rented from any Government Agency : Yes/No

12. If so, please name it :

13. Do you use power : Yes/No

III. ORIGIN OF ENTREPRENEURSHIP

1. Mention the factors which motivated you to establish this unit: (Please rank your choice as 1, 2, 3 .... upto 5).
   ( ) More profits and accumulation of wealth
   ( ) To do an independent job
   ( ) Social standing/prestige in the society
   ( ) To utilise my prior industrial/business experience
   ( ) To utilise my wealth/property
   ( ) Assistance and incentives given by the Government/Promotional agencies.
   ( ) Motivation by family members/relatives/friends
   ( ) To utilise training/experience in trade/business
( ) Absence of competition
( ) Heavy demand for the proposed products
( ) To serve the social/national interest like production of quality products/supply of goods at reasonable prices/to create employment opportunities.
( ) Any other (specify)

2. Please state the time lag between the idea of setting up the unit and actual setting up:
   a. Time taken for planning the Enterprise
   b. Time involved in building the premises and installation of Machinery and Equipment.
   c. Time involved in obtaining loans and other facilities from the banks and other Government agencies.
   d. Time involved in getting power connection.

3. Please mention the sources and the amount of help received from Government/promotional agencies in planning out the unit.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Source</th>
<th>Nature of help</th>
<th>Amount Rs.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>2</td>
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<td>5</td>
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</tbody>
</table>

4. Please mention the amount of help received from
   a) Own family
   b) Friends and relatives
   c) Any other, at inception level
IV. THE HISTORY AND GROWTH OF THE UNIT

1. Please indicate the growth of the unit in the following terms:

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Production capacity</td>
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<td>2.</td>
<td>utilised in percentage</td>
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<td>3.</td>
<td>Production (Rs.000)</td>
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<td>4.</td>
<td>No.of persons</td>
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<td></td>
<td>employed per day/per shift</td>
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<td>5.</td>
<td>No.of shifts per day</td>
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<td>6.</td>
<td>No.of Machines</td>
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<td>7.</td>
<td>Turnover (Rs.000)</td>
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<td>8.</td>
<td>Total Investments (Rs.000)</td>
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<td>9.</td>
<td>Net Profits (Rs.000)</td>
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</table>

2. Expansion of the unit:

a) Has the unit been expanded since inception: Yes/No
b) Was the expansion by means of more capital/more labour/more shifts Capital/Labour/Shifts
c) Was the expansion effective? Yes/No
d) In what respects?
e) What difficulties did you face in expanding the unit?
f) Did you make any plan for expansion/modernisation/diversification which could not give effect to?

Expansion/Modernisation/Diversification

g) If yes, what according to you, were the reasons for the failure?

3. Establishment of new units:

a) Have you established any new unit since the inception of the first unit?

Yes/No

b) If 'Yes' what influenced you to do so?

c) Are you successful in operating the new unit?

Yes/No

4. New Products and By-Products:

a) Have you entered into any new line of production? Yes/No

5. Future plans, of the Entrepreneur has any plan to (put a tick)
(Rank your choice as 1, 2, 3 .... upto 5)

( ) establish new units

( ) expansion/diversification/modernisation of the original units

( ) improvement in machinery

( ) improvements in lay-out/design of plant

( ) introduce new products

( ) change the marketing arrangements

( ) other modification, if any (Specify)
V. FINANCIAL STRUCTURE OF THE UNIT

1. Please indicate the following:

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Borrowed capital</td>
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<td></td>
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<tr>
<td>2.</td>
<td>Own capital</td>
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<td></td>
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<td>3.</td>
<td>Amount of reserve and surplus</td>
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<td></td>
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<tr>
<td>4.</td>
<td>Borrowed from banks</td>
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</tr>
<tr>
<td>5.</td>
<td>Borrowed from other Financial Institutions</td>
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<tr>
<td>6.</td>
<td>Amounts of loan applied for from various financial institutions</td>
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<td></td>
<td>(Give the total figure)</td>
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<td>7.</td>
<td>Loans sanctioned</td>
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<td>8.</td>
<td>Loans repaid</td>
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</table>

2. How do you get your working capital?
   Own/Banks/Other institutions (Specify)

3. Was the loan made available to you in time?
   Yes/No

4. What is the attitude of financial institutions when you approach them for working capital assistance?

5. What is the rate of interest you pay on loans from different sources?
6. Does your profit earning capacity permit such a rate of interest? Yes/No

7. What problems did you face in raising the initial finance?

8. Give details regarding the following:

(Rs. in thousands)

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<tr>
<td>(a) Fixed Assets</td>
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<td>(b) Current Assets</td>
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<td>(c) Current Liabilities</td>
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9. Cost Structure:

(a) Do you have a qualified cost accountant in your unit or a costing department? : Yes/No

(b) Have you taken steps to control cost? If so, what are they? : Yes/No

(c) Could you succeed in your efforts? : Yes/No

(d) Please give details of costs in the Table:
(Rs. in thousands)

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<tbody>
<tr>
<td>1</td>
<td>Total units produced</td>
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<tr>
<td>2</td>
<td>Material cost</td>
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<td>3</td>
<td>Labour cost</td>
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<td></td>
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<tr>
<td>4</td>
<td>Factory overheads</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5</td>
<td>Office Administration overheads</td>
<td></td>
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<tr>
<td>6</td>
<td>Selling and Distribution overheads</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Interest Cost</td>
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</table>

VI. PRODUCTION

1. Have you introduced *mechanisation* unit? Yes/No

2. Have you ever changed the original techniques of production? Yes/No

3. If Yes, have you imitated it/innovated? Imitated/Innovated

4. Have you any future plans to change the technique now being adopted? Yes/No

5. Have you designed any new method of production? Yes/No

6. If yes, then has it increased the productivity of the unit? Yes/No
7. What are the main hurdles in the way of capacity utilisation? (Please rank the choice as 1, 2, 3, ..... upto 5)

( ) Shortage of raw materials
( ) Paucity of funds
( ) Difficulties in marketing of goods
( ) Power shortage
( ) Labour problems
( ) Severe competition
( ) Strained Industrial relations
( ) Want of skilled/unskilled workmen
( ) Any other (Specify)

8. In your view, how can the percentage of capacity utilisation be increased? (Please rank)

Increased availability of raw material/Continuous power/Adequate Marketing/Finance/Increased Labour availability/Any other (Specify).

Quality Control:

9. Do you adopt any measures to control the quality? Yes/No

10. Can you get better prices/a wider market, if quality of your product is still improved? Yes/No

11. Do you face any problems in marketing of your goods due to quality reasons? Yes/No

VII. RAW MATERIALS

1. Do you get all the needed raw materials locally? Yes/No

2. If not, where from do you purchase the same?

3. If the raw material is available through Government controlled channels, do you get all the quantity you need? Yes/No
4. Is the required raw material available in the open market?
   Yes/No

5. If 'No', then what percentage of your requirements do you get from Government. Please give details.

6. Do you use any raw materials imported from abroad?
   Yes/No

7. If yes, give details

8. Do you get materials of requisite quality? Yes/No

9. Are there transportation difficulties? Please give details
   Yes/No

VIII. MARKETING

|-----------------|--------------|---------|---------|---------|---------|---------|

Percentage of Sales
(a) Inside the State
(b) Outside the State
(c) Foreign Countries

<table>
<thead>
<tr>
<th>Total Rs.</th>
</tr>
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</table>

2. Do you face any problems in marketing your products?
   Yes/No
3. a) Have you ever conducted any Marketing Surveys? Yes/No
   b) If Yes give details

4. Do you feel that Marketing research is effective in determining the quantity and quality of the products required in the market? Yes/No

5. Do you get immediate information about the demand for your products in various markets? Yes/No

6. If 'Yes', how?

7. Channels of distribution:

   Direct channels | Percentage of Sales

   a) To wholesalers
   b) To Retailers
   c) Straight to consumers

8. Nature of competition you face in the market: (Please Specify)
   Severe/Keen/Not so keen

9. How do you fix the prices of your products? (Please specify)
   Cost based/Demand based/Cost and Demand

10. Do you get satisfactory prices for your products? Yes/No
11. Do you adopt any sales-promoting techniques?
   Yes/No

12. If yes, what are they?

13. If 'No' mention the reasons for not adopting sales promotion techniques.

14. Are you satisfied with the profitability of the Unit?
   Yes/No

15. Can you further increase your profits?
   Yes/No

16. If yes, then how?

17. Do you consider ploughing back of profits as essential for strengthening the financial position of the concern?
   Yes/No

CREDIT POLICIES

1. Please furnish the following information:

   (in percentage)

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<tbody>
<tr>
<td></td>
<td></td>
<td>1984-85</td>
<td>86</td>
<td>87</td>
<td>88</td>
<td>89</td>
</tr>
</tbody>
</table>

1. Cash Sales
2. Credit Sales
3. Cash Purchases
4. Credit Purchases
2. Please explain your credit terms regarding Purchase and Sales.
   a) Terms regarding Purchase:
   b) Terms regarding Sales:

3. In how many days do you normally get the payments from Sundry Debtors?

4. Do you feel that sales promotion efforts have increased/can increase your sales?
   Yes/No

5. What mode of transport do you employ for conveying the goods to the markets?
   Road/Rail/Air

6. Do you own any transport vehicles?
   Yes/No

7. Do you think that a more liberal credit policy can increase your sales?
   Yes/No

Personnel Management in the Unit:

1. Have you any trained persons to manage the factory?
   Yes/No

2. Has your organisation faced any labour problems?
   Yes/No

3. If Yes, what are the main issues leading to labour problems?

4. What is the strength of employees in your unit?
5. Do you get the required labour force from within the District?
   Yes/No

6. Have the workers of your unit formed any Union?
   Yes/No

7. What are the normal working hours in your factory?

8. Do you have an apprentice system?
   Yes/No

9. Do you pay the workers on time basis or on the basis of work done?
   Time Basis/Basis of work done

10. Do you have any incentive system in wage-payment for workers?
    Yes/No

GOVERNMENT POLICY

1. Please explain the attitude and functioning of the Government agencies with reference to entrepreneurs.
   Encouraging/Not so encouraging/discouraging
2. Do you think that Government officials are anxious and alert to promote the growth of units.
   Yes/No

3. If yes, please give details.

4. What are your suggestions for the development of Entrepreneurship and growth of industries?

GENERAL

1. Does the present factory premises meet your entire needs?
   Yes/No

2. Do you get all the electric power you need?
   Yes/No

3. If no, how do you meet this shortage?

4. Do you think that the electric charges levied are reasonable?
   Yes/No

5. Do you need water for your production?
   Yes/No

6. Does your production suffer on account of shortage of power or water?
   Yes/No

7. If yes, give details.

8. Are the industrial infrastructure facilities available to you adequate?
   Yes/No
9. If 'No' specify the inadequacies?

10. Are you a member of any Trade Association? Give details.
    Yes/No

11. Do you feel that the Association plays its role in developing units?
    Yes/No

12. Have you been paying Sales Tax/Additional Sales Tax?
    Yes/No

13. Does it affect your production/profit?
    Yes/No

14. Were there any problems in getting Sales Tax Clearance Certificates?
    Yes/No

15. If yes, please give details.

16. Has your unit ever been 'sick'?
    Yes/No

17. If yes, what factors have caused the sickness? (Please rank the causes if more than one).

    ( ) Shortage of Power
    ( ) Marketing Problems
    ( ) Raw-material shortage
    ( ) Disputes
    ( ) Fund inadequacy
    ( ) Licencing/ST/IT problems
    ( ) Mismanagement
    ( ) Any others (Specify)
APPENDIX B

Computation of Growth Rate under Least Squares Method

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<th>X</th>
<th>X^2</th>
<th>XY</th>
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<tbody>
<tr>
<td>1978</td>
<td>278</td>
<td>-6</td>
<td>36</td>
<td>-1668</td>
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<tr>
<td>1979</td>
<td>120</td>
<td>-5</td>
<td>25</td>
<td>-600</td>
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<tr>
<td>1980</td>
<td>210</td>
<td>-4</td>
<td>16</td>
<td>-840</td>
</tr>
<tr>
<td>1981</td>
<td>155</td>
<td>-3</td>
<td>9</td>
<td>-465</td>
</tr>
<tr>
<td>1982</td>
<td>210</td>
<td>-2</td>
<td>4</td>
<td>-420</td>
</tr>
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<td>1983</td>
<td>193</td>
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<td>1984</td>
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<td>896</td>
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<td>1990</td>
<td>252</td>
<td>6</td>
<td>36</td>
<td>1512</td>
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\[ \begin{align*}
Y &= a + b \cdot X \\
a &= \frac{\sum Y}{N} \\
b &= \frac{\sum XY - \frac{1}{N} \sum X \sum Y}{\sum X^2 - \frac{1}{N} (\sum X)^2}
\end{align*} \]
a = \frac{2896}{13} = 222.7692

b = \frac{1153}{182} = 6.335165

y = 222.7692 + 6.335165 x

y_{1995} = 222.7692 + 6.335165 (11)

= 292.4660

= 292
## APPENDIX C

Computation of Correlation between Number of Units and Employment Generation
by Karl Pearson's Product Moment Method

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<tbody>
<tr>
<td>$x$</td>
<td>$x^2$ (x-255)</td>
<td>$x^2$</td>
<td>$y$</td>
<td>$y^2$ (y-1469)</td>
<td>$y^2$</td>
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<td>2545792</td>
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\[
\begin{align*}
 r &= \frac{\sum xy - \left( \frac{\sum x \times \sum y}{n} \right)}{\sqrt{\sum x^2 - \left( \frac{\sum x^2}{n} \right)^2} \sqrt{\sum y^2 - \left( \frac{\sum y^2}{n} \right)^2}} \\
 &= \frac{266533 - (-419 \times -1140)}{13} \\
 &= \frac{70777 - (419)^2}{13} \times \frac{254572 - (1140)^2}{13}
\end{align*}
\]

\[
\begin{align*}
 r &= \frac{266533 - 36743.1}{70777 - 1038.8} \times \frac{254572 - 7689.8}{2538102} \\
&= \frac{6973.2}{229789.9} \times \frac{2538102}{1593.142} \\
&= 0.5461867
\end{align*}
\]

**Testing the Significance of Correlation Coefficient**

\[
\begin{align*}
 t &= r \times \sqrt{\frac{n-2}{1-(r)^2}} \\
 &= 0.5461867 \times \sqrt{\frac{13-2}{1-(0.5461867)^2}} \\
&= 0.5461867 \times \sqrt{\frac{11}{1-0.2983199}} \\
&= 0.5461867 \times \frac{11}{0.7016801}
\end{align*}
\]
\[ = 0.5461867 \times \frac{1}{15.57666} \]
\[ = 0.5461867 \times 3.959376 \]
\[ = 2.162599 \]

\[ t = 2.2 \]

Degree of freedom = 11
Theoretical value at 5\% level = 2.2
Calculated value = 2.2