APPENDICES
TABLE A.6.1

PRODUCTLINE OF SHELL CRAFT UNITS AND INVESTMENT

<table>
<thead>
<tr>
<th>Investment</th>
<th>Units</th>
<th>Big door Curtains</th>
<th>Small door Curtains</th>
<th>Lamp Shades</th>
<th>Shell Ornaments</th>
<th>Decorative</th>
<th>Shell mat</th>
<th>Pothangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the most</td>
<td>91</td>
<td>727 (7.89)</td>
<td>2450 (26.92)</td>
<td>627 (6.89)</td>
<td>240 (2.63)</td>
<td>181 (1.98)</td>
<td>1080 (11.86)</td>
<td>1543 (16.75)</td>
</tr>
<tr>
<td>500-1000</td>
<td>142</td>
<td>3376 (23.77)</td>
<td>6779 (47.73)</td>
<td>2561 (17.61)</td>
<td>460 (3.23)</td>
<td>290 (2.04)</td>
<td>1190 (8.38)</td>
<td>1568 (11.04)</td>
</tr>
<tr>
<td>1000-1500</td>
<td>40</td>
<td>1166 (29.15)</td>
<td>1940 (48.50)</td>
<td>1100 (27.50)</td>
<td>180 (4.50)</td>
<td>601 (15.02)</td>
<td>390 (9.75)</td>
<td>1208 (30.20)</td>
</tr>
<tr>
<td>1500-2000</td>
<td>11</td>
<td>225 (20.45)</td>
<td>801 (72.81)</td>
<td>475 (43.18)</td>
<td>30 (2.72)</td>
<td>70 (6.36)</td>
<td>150 (13.53)</td>
<td>285 (25.90)</td>
</tr>
<tr>
<td>Above 2000</td>
<td>16</td>
<td>1005 (62.81)</td>
<td>2555 (159.68)</td>
<td>610 (38.12)</td>
<td>225 (14.06)</td>
<td>510 (31.87)</td>
<td>450 (28.12)</td>
<td>835 (52.18)</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>6496 (21.66)</td>
<td>14525 (48.41)</td>
<td>5313 (17.71)</td>
<td>1135 (3.78)</td>
<td>1652 (5.50)</td>
<td>3260 (10.86)</td>
<td>5439 (18.13)</td>
</tr>
</tbody>
</table>

Note: Figure in Parentheses denote Average to their respective total.
Source: Survey Data.
## TABLE A.6.2

**PRODUCTLINE AND AGE OF THE ENTERPRISE**

<table>
<thead>
<tr>
<th>Investment</th>
<th>Units</th>
<th>Big door Curtains</th>
<th>Small door Curtains</th>
<th>Lamp Shades</th>
<th>Shell Ornaments</th>
<th>Decorative M isiyo</th>
<th>Shell mat</th>
<th>Pothangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the most 5</td>
<td>38</td>
<td>564 (14.84)</td>
<td>1606 (42.26)</td>
<td>775 (20.39)</td>
<td>80 (2.10)</td>
<td>165 (4.34)</td>
<td>410 (10.78)</td>
<td>662 (17.42)</td>
</tr>
<tr>
<td>5-10</td>
<td>216</td>
<td>4785 (22.15)</td>
<td>10749 (16.42)</td>
<td>3547 (4.05)</td>
<td>875 (4.42)</td>
<td>955 (9.16)</td>
<td>1980 (15.35)</td>
<td>3317</td>
</tr>
<tr>
<td>10-15</td>
<td>31</td>
<td>825 (26.61)</td>
<td>1770 (57.09)</td>
<td>716 (4.19)</td>
<td>130 (6.80)</td>
<td>211 (10.16)</td>
<td>315 (26.45)</td>
<td>820</td>
</tr>
<tr>
<td>15-20</td>
<td>11</td>
<td>275 (25.00)</td>
<td>300 (27.27)</td>
<td>275 (25.00)</td>
<td>20 (1.81)</td>
<td>241 (21.90)</td>
<td>300 (27.27)</td>
<td>620</td>
</tr>
<tr>
<td>Above 20</td>
<td>4</td>
<td>50 (12.50)</td>
<td>100 (25.00)</td>
<td>0 (0.00)</td>
<td>30 (7.5)</td>
<td>80 (20.00)</td>
<td>225 (63.75)</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>6496 (21.66)</td>
<td>14525 (48.41)</td>
<td>5313 (17.71)</td>
<td>1135 (3.78)</td>
<td>1652 (5.50)</td>
<td>3260 (10.96)</td>
<td>5439</td>
</tr>
</tbody>
</table>

Note: Figure in Parentheses denote Average to their respective total.

Source: Survey Data.
### TABLE A.6.3

PRODUCTLINE AND AGE OF ENTERPRENEUR

<table>
<thead>
<tr>
<th>Investment</th>
<th>Units</th>
<th>Big door Curtains</th>
<th>Small door Curtains</th>
<th>Lamp Shades</th>
<th>Shell Ornaments</th>
<th>Decorative Mirror</th>
<th>Shell mat</th>
<th>Pothangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the most 25</td>
<td>12</td>
<td>20 (1.66)</td>
<td>316 (26.33)</td>
<td>200 (16.66)</td>
<td>105 (8.75)</td>
<td>40 (3.33)</td>
<td>250 (20.83)</td>
<td>152 (12.67)</td>
</tr>
<tr>
<td>25-35</td>
<td>31</td>
<td>813 (26.22)</td>
<td>2053 (66.22)</td>
<td>122 (3.93)</td>
<td>10 (0.32)</td>
<td>200 (6.45)</td>
<td>175 (5.64)</td>
<td>661 (21.32)</td>
</tr>
<tr>
<td>35-45</td>
<td>113</td>
<td>2793 (24.71)</td>
<td>4766 (42.17)</td>
<td>2569 (22.73)</td>
<td>445 (3.93)</td>
<td>521 (4.61)</td>
<td>1060 (9.38)</td>
<td>2025 (17.92)</td>
</tr>
<tr>
<td>45-55</td>
<td>111</td>
<td>2438 (21.96)</td>
<td>4825 (43.46)</td>
<td>1951 (17.63)</td>
<td>320 (2.88)</td>
<td>745 (6.71)</td>
<td>1450 (13.06)</td>
<td>2142 (19.29)</td>
</tr>
<tr>
<td>Above 55</td>
<td>33</td>
<td>435 (13.18)</td>
<td>2565 (77.72)</td>
<td>465 (14.09)</td>
<td>225 (7.72)</td>
<td>146 (4.42)</td>
<td>325 (9.84)</td>
<td>459 (13.90)</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>6499 (21.66)</td>
<td>14525 (48.41)</td>
<td>5313 (17.71)</td>
<td>1135 (3.78)</td>
<td>1652 (5.50)</td>
<td>3260 (10.86)</td>
<td>5439 (18.13)</td>
</tr>
</tbody>
</table>

Note: Figure in Parentheses denote Average to their respective total.

Source: Survey Data.
APPENDIX

A.1 Profile of the Sample Respondents

A.1.1. Demographic Profile:

In the households of entrepreneurs of the 300 sample units taken together, total population has been 1395. The average size of the household has been 4.65 and is surprisingly less than the All India Average, All India urban average, Delhi Average, Delhi urban Average and Kanyakumari district average, namely 5 per household. The sex ratio has been 1:1.04 (male, female ratio)

A.1.2. Sex Composition of the Entrepreneurs:

An interesting point is that unlike the other traditional rural handicrafts such as temple jewellery, stone carvings, wood carvings, shell craft is not an all male profession. Women entrepreneurs are found in the trade. Women have taken up the profession on a full-fledged basis. A factor promoting women's participation in the trade has been the soft work involved in it. Among the 300 sample entrepreneurs 143(47.67) have been women and 157(52.33) have been males.
A.1.3 Community and Religion:

In Indian society the caste system has been rather a social organisation. Almost every caste has been closely associated with a particular occupation. However shell craft has been an exception. Almost all the three communities forward, backward and most backward have been seemed to be engaged in shell craft manufacturing though not in equal proportion.

Religion as an aspect of social structure has an important influence on life styles. The sample consists of 230 (76.67 percent) hindus 62 (20.67 percent) christians and 8 (2.66 percent) muslims.

A.1.4 Marital Status

The cultural imperative of marriage is universal. In traditional societies it acts as a status giving device and it enlarges the responsibilities in the wider social net work. The marital status has its social and economic implication in Industrial work 282 (94 percent) sample entrepreneurs are married 15 (5 percent) are unmarried and 3 (1 percent) are widowed.
A.1.5 Age Structure

As an ascriptive phenomenon age is intimately related with the nature of adjustment to work and adaptive capacity of the persons. The sample entrepreneurs' age classification has 5 groups. The first group, having entrepreneurs of age at the most 25 years, has 12 persons. The second group consisting of entrepreneurs of age above 25 but at the most 35 years, has 31 entrepreneurs. The third of the age group of 36 to 45 years has 113 (37.7 percent) entrepreneurs. The fourth group includes entrepreneurs in the age group between 46 to 55 years and there has been 111 (37 percent) in the group. The last one consisting of entrepreneurs in the age of at least 56 years has 33 (11 percent) entrepreneurs.

A.1.6 Literacy

It is the first step of education. It represents a cultural break through. It is a breach in the culture of silence, created and fostered for the socio economic liberation and for the attainment of social party. Emphasising the importance of education in economic development Cairncross writes, 'no country can itself developed in which education is the way of industrialisation has not taken place'. Education makes workers efficient. Education becomes all the more
important in creative activities like handicrafts where there is a constant interaction between artisans, master craftsmen, traders and exporters not only for producing and marketing items but also for innovations.

A.2 Location for Business

A.2.1 The choice of the place where an industrial establishment comes to be started has a very great influence on productivity, efficiency and profitability of the particular industrial unit.

The location of an industry is greatly influenced by adequate efficient and cheap means of transport. The network of transport links the areas of sources of raw materials to industries and proximity to markets.

Industries, like human beings have tendency to concentrate in particular regions and places. The causes for location are nearness to raw materials, availability of labour, nearness to market, transport facilities, banking credit and entrepreneur skill.

Entrepreneurial ability is one of the most important factors of localisation. In addition to this abundance of cheap labour force has also made the shell industry to be located in Kanyakumari.
During the study an attempt was made to find out the factors that influenced the entrepreneurs to locate their unit in particular area. It is a revelation that amidst a total of 300 responses from the sample unit a sizeable number of 205 responses (68.3 percent) indicated the availability of cheap labour as a major influential factor locating their units. Responses 57 in number (that is 19 percent) pointed out that nearness to market or proximity to consumer influenced them to locate their enterprises, 23 responses (7.7 percent) pointed out that availability of raw material influenced them to locate their enterprises, 15 responses (only 5 percent) pointed out that availability of good transport influenced them to locate their business.
A.3. Sources of Investment

Out of the 300 sample units, 41 (13.7 percent) of them are registered and among them 6 (2 per cent) have availed institutional credit facilities. The remaining 259 (86.3 percent) are unregistered. Most of the sample units are not registered. The survey indicated the reasons for such non registration. 1. There is no legal compulsion 2, lack of knowledge about the procedures, 3 cumbersome procedures of registration and 4, the tax.

The units are unwilling to come forward for registration on a voluntary basis as the registration was only for statistical purposes and the shell craft industries derived no benefit out of it. The source of investment for them is their own capital besides some amount borrowed from friends and relatives.

A.4. Membership in Trade Association

Each trade has its own trade association. The trade associations look after the welfare of the business units. By becoming a member of a particular trade association each small scale shell craft entrepreneur gets a chance to discuss his problems on marketing, finance and the like. The trade association also helps the member entrepreneurs in solving their problems and subsequently it leads to their growth.
A.5. Activity of the Association

1. It helps the members to get financial assistance like the DIR loan and Trysal loans.

2. It helps the members to get training facilities.

3. To conduct trade fairs.

For shell craft entrepreneurs there is an association called the 'Tamil Nadu sea-shell Artisan's welfare Association'.

Out of the 300 sample units 18 (6 percent) are members of the Association. The remaining 282 (94 percent) are non members.

A.6 Production process

A.6.1 Door Curtain

Raw materials: Sea-shells, nylon wire, tubes, beads.

First of all the women artisans sort out the polished cleaned shells according to size and colour. The selected shells are kept in different containers in order to avoid the mixing of coloured shells. Then they punch holes in each shell by means of a needle and it is the most time consuming work. After punching holes the artisans insert the nylon wires through the holes of shells and at regular interval, they also insert coloured
plastic tubes and beads to make it more attractive. In this way the door curtains of varying sizes are made. At the extreme corner of the door curtain a designed locket is hung to solicit attention.

A.6.2 Lamp Shades

For making lamp shades the required items are seashells of different colours and size (Button shells, milk chippi (paul chippi) nylon wires, iron rings and plastic tubes and plastic plates.

First of all the artisans insulate iron rings by means of coloured plastic tubes depending upon the size of the lamp shades. The iron rings are kept at regular intervals and they are connected by nylon wires. Then they insert the nylon wires into the shells and it will be tied over the iron rings. In some cases instead of iron rings plastic plates will be used for making lamp shades.

A.6.3 Decorative Mirrors:

The required items are mirrors of varying sizes, cardboards, fevicol, sea-shells, clips and glass papers.

First of all looking mirrors is cut according to size. To suit the size of the mirror the cardboards are also cut. Then the clip is fixed in the cardboard. After that fevicol is spread on the back side of the mirror and the
cardboard is fixed over it. After drying it for some time the artisans decorate the looking side of the mirror by fixing coloured shells with the help of fevicol. To make it attractive the sea shells are painted when it is dried, the looking mirrors are ready for use.

A.7. Household Income

A.7.1 Income is one of the principal determinants of the level of the living of the owners of shell crafts units. In the analysis shell craft entrepreneur's household income comes mainly from five sources, namely i) income from shell business (ii) Agricultural income (iii) live stock income (iv) income from shell work and (v) income from other sources. The average household income from all sources works out to Rs.76778.
### A.7.2 Proportion of Shell Craft Income to Total Household Income

<table>
<thead>
<tr>
<th>Percentage Distribution of Shell Craft Income to Total Income</th>
<th>Number of units</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the most 50</td>
<td>17 (5.67)</td>
</tr>
<tr>
<td>50-59</td>
<td>25 (8.33)</td>
</tr>
<tr>
<td>60-69</td>
<td>40 (13.33)</td>
</tr>
<tr>
<td>70-79</td>
<td>48 (16.00)</td>
</tr>
<tr>
<td>80-89</td>
<td>57 (19.00)</td>
</tr>
<tr>
<td>90-99</td>
<td>53 (17.67)</td>
</tr>
<tr>
<td>100</td>
<td>60 (20.00)</td>
</tr>
</tbody>
</table>

Source: Computed from Survey Data.
Note: Figures in parentheses denote percentages to Total.

The percentage distribution of shell crafts income to total household income reveals that only least number of households (17 households, 5.67 per cent receive less than 50 per cent of household income from shell crafts. The lowest share of shell income to total household income works out to 34.43 per cent. It is interesting to note that 20 per cent of the households receive their entire income from shell crafts alone.
### Reasons for getting into the Business

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Reasons for starting the Business</th>
<th>Preference of shell crafts owners (in percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High profit</td>
<td>10.00</td>
</tr>
<tr>
<td>2</td>
<td>Familiarity with the line of Manufacture</td>
<td>2.00</td>
</tr>
<tr>
<td>3</td>
<td>Self employment</td>
<td>83.30</td>
</tr>
<tr>
<td>4</td>
<td>Help from Friends and Relatives</td>
<td>1.70</td>
</tr>
<tr>
<td>5</td>
<td>Financial Assistance</td>
<td>2.00</td>
</tr>
<tr>
<td>6</td>
<td>To use Domestic Resources</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

This study reveals that more than 83 per cent of the sample respondents have started their business for self employment.
QUESTIONNAIRE

ENTREPRENEUR SCHEDULE

TOPIC: Economics of Shell Craft Industry in Kanyakumari District

Scholar: 

Supervisor: 

I. General Information:

1. Name of the respondent : 
2. Village : 
3. Taluk : 
4. Age : 
5. Religion : Hindu/Muslim/Christian/Any other 
7. Marital Status : Married/single 
8. Type of Family : Joint/Nuclear 
9. Education : General/Technical 
10. Sex : Male/Female 

11. Particulars of the Household:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Relationship with the respondent</th>
<th>Education</th>
<th>Eco. Status</th>
<th>Occu- Remar k</th>
<th>P/S/HS/C</th>
<th>E/D</th>
<th>P/S</th>
</tr>
</thead>
</table>
II. Firm Particulars:

1. Name & Address of the establishment:
2. Is your unit registered or unregistered:
3. If registered year and Date of Registration:
4. If registered the reason for registration:
5. If unregistered the reason for it:
6. Type of the establishment: Own / Partnership / Cooperative / Share holders
7. Years of experience:

III. Reasons for getting into the business:

1. Expectation of high profit.
2. Familiarity with the line of manufacture.
3. Self employment
4. Availability of help from friends and relatives.
5. Possibility of getting financial and technical assistance.
6. Scope for using domestic resources.
7. Any other.

IV. Why did you choose this location for your business:

1. Availability of raw material.
2. Nearness to markets.
3. Good transport facilities.
4. Proximity to consumers
5. Availability of cheap labour.
V. Finance:

1. Sources of finance
   - Internal: Own savings/income from property/earnings
   - External: Friends and relatives/commemrical banks/cooperative/money lenders/private finances.

2. Rate of interest: Banks/money lenders/private finance/cooperatives.

3. Mode of security: Jewels/Property/others.


5. Date of receiving loan.

6. Difficulties in securing finance: Insufficient amount/Too much formalities/High rate of interest.

VI. Raw Materials:

1. What are the different sources of purchase of raw materials: Local/Outside/agent/society/union.

2. Name the principal raw material: shell/wire/beads/Tube/Fevicol.


4. Cost of raw materials: Rs. per annum.

5. What are the difficulties in securing raw materials: High price/low quality/problems of transport/scarcity.
VII. Production:

1. Name of the Products produced per day:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the product</th>
<th>Quantity per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Door Curtain (Big size)</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Door Curtain (Small size)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Lamp shade</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Shell ornaments</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Decorative Mirror</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Reed mat with shell work</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Pot hangers</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Key chain</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Others specify</td>
<td></td>
</tr>
</tbody>
</table>

VIII. Cost of production

1. What is the labour cost per day.

2. What is the material cost per day.

3. Others : if any.
IX. Employment:

1. Total number of workers employed and wage rate in your unit.

<table>
<thead>
<tr>
<th>Persons</th>
<th>Skilled</th>
<th>S-Skilled</th>
<th>Unskilled</th>
<th>Total</th>
<th>Skilled</th>
<th>S-Skilled</th>
<th>Unskilled</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
<td>(wage rate)</td>
</tr>
</tbody>
</table>

Male
Female
Child
Total

2. Nature of employment Temporary/Permanent
3. Average days of employment per annum
4. When do workers come for work.

X. Wages:

1. Type of wage payment : Piece rate/Rs. per piece
   Time rate / Rs. per hour
2. How are wage paid : Daily/weekly/fortnightly/monthly.
3. Are there any incentive payment to workers: Bonus/gifts
4. If yes on what basis: Total wages/salary bill.
5. Is there any labour unrest: Yes/No.
6. If yes specify the reason
7. How it is settled?
8. Are you a member of South Tamil Nadu sea-shell Artisans Welfare Association: Yes/No.

9. If no give reasons:

10. If there any workers union in your industry: Yes/No.

XI. Innovation:

1. Have you introduced any new products and new models: Yes/No

2. How do you get the new model

3. Who introduced the model or product in the district.

4. How did you adopt the model? Did you test its marketability.

5. Do you have any plan of promoting it to the level of exportability.

XII. Marketing:

1. Do you directly market the product: Yes/No.

2. If no what is the marketing channel: Producer/whole saler/Commission agent / Retailer / Govt. emporia / Private emporia / Private emporia / Supplier of raw material.

3. Do you receive money as soon as you market the product through the above agencies: Yes/No

4. If no what is the problem in receiving money.
5. What are the marketing problems you undergo: Transport / Storage / packing / Scope for breakage / competition / Slackness in demand / inadequate market.

6. Do you have steady sales throughout the year.

7. Are you getting any institutional support for marketing. If so mention the available facilities.

8. What is the marketing cost: Sales tax / Loading / Unloading Transport.

XIII. Income

1. What is the profit margin from shell unit.

2. Is the income from shell unit regular: Yes/No.

3. If no what is the peak and slacking period and the income in these periods?

4. What are the sources of income

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount per month/ Annual in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shell craft</td>
<td></td>
</tr>
<tr>
<td>2. Agriculture</td>
<td></td>
</tr>
<tr>
<td>3. Land</td>
<td></td>
</tr>
<tr>
<td>4. Investment</td>
<td></td>
</tr>
<tr>
<td>5. Livestock</td>
<td></td>
</tr>
<tr>
<td>6. Building</td>
<td></td>
</tr>
<tr>
<td>7. Others</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
XIV. Accommodation:

1. Nature: Own/Rental.
2. If Rental what is the monthly rent.
3. What is the type of building: Pucca/Kutcha/thatched.
4. Do you have any problem in Accommodation.

Date: Investigator.