Estimating the performance effect of Jai Maa Sharda SHG: A case study of Khairagarh district

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Abstract
This study was conducted in rural area of Khairagarh district of Chhattisgarh. Jai Maa Sharda SHG was selected for the study purpose, there were 10 members. The total costs were found to be 34700 Rs on paper plate, 46000 Rs on dinner plate and 24500 Rs on cups. The net incomes were 45300 Rs from paper plate, 14000 Rs from dinner plate and 35500 Rs from cup. The benefit cost ratios were 1.30 for paper plate, 0.30 for dinner plate and 1.44 for cup. Maximum quantity sailed out through marketing channels- paper plate (wholesale, 54.68%), dinner plate (wholesale, 41.87%), cup (wholesale, 41.66%). Maximum quantity sailed out in wholesale market. These included fluctuations in the price of raw materials in the market, shortage of manpower for selling the products, fluctuations in the demand for their products, and a lack of advertisement. To address these constraints and enhance the SHGs' business performance, it is recommended to advertise their products on social media platforms and FM radio. Additionally, increasing the SHGs' loan amount and establishing links with local supermarkets can boost their operations. Organizing training programs to develop entrepreneurial capabilities and improving the quality of packaging and grading are also advised.

Keywords: Business performance, supplementary, employment, net incomes, benefit cost ratio

Introduction
An informal supplementary credit delivery mechanism by lending at group level, there are many studies on women SHGs and its impact since, women SHGs are functioning well by influencing rural people in the income, employment, savings, investment etc. “Self Help Group is a small economically homogenous affinity group coming together to save small amount of money regularly, which is deposited to common fund to meet their members.” The origin of SHGs can be traced in Grameen Bank of Bangladesh which is founded by Mohammed Yunus, he tried out a new approach to rural credit in Bangladesh. The success stories of Bangladesh Grameen Bank and experience of Indonesia, Nepal and Korea in participatory approach to the micro credit programme for poverty alleviation also provided momentum in India. In India the Self -Help Groups was initiated by NABARD in the year 1986-87, but the real progress of Self-Help Groups was started in the year 1991-92 from the linkage of Self-Help Groups with bank. District Khairagarh-Chhuikhadan-Gundai was separated from the erstwhile Rajnandgaon district and came into existence as the 31st district on 03 September 2022. Known as Music City Khairagarh, the foundation of Asia’s first art and music university and the first university of Chhattisgarh state was laid here by the then ruler King Virendra Bahadur Singh and Queen Padmavati in 1956. He named this university in the memory of his daughter Indira and donated his Raj Bhavan for the establishment of Music and Fine Arts University. Which reflects the rich cultural heritage of Khairagarh dedicated to visual and performing arts. It is located in the western central part of Chhattisgarh state. Whose western border touches the border state of Madhya Pradesh. Its district headquarters is Khairagarh. Khairagarh is 91.4 km from the state capital Raipur. (Via National Highway 53) and the distance from mother district Rajnandgaon to headquarter Khairagarh is about 40 km. Is. The nearest airport of the district is Swami Vivekananda Airport Raipur 103.6 km. (Via National Highway 53) away. The number of SHGs in Khairagarh district 4354. (https://nrhm.gov.in)

Specific objectives
1. To analyze the cost and returns of different products produces by the SHGs.
2. To find out the marketing pattern of different products produces by the selected SHGs.
Materials and Methodology

Cost of production

The expenditure incurred in producing a unit quantity of output is referred to as cost of production. The cost of production is a summation of Total Variable Cost and Total Fixed Cost.

Cost of Production = Total Variable Cost + Total Fixed Cost

1. Variable Cost: The variable cost includes raw materials, labor charges, electricity charges, water charges, maintenance charges of machinery etc. And the summation of all the variable costs is called as Total Variable Cost.

2. Fixed Cost: The fixed cost includes costs like taxes, insurance, land rent, infrastructure etc. And the summation of all the fixed costs is called as Total Fixed Cost.

Profitability Concepts

1. Gross Income: It is referred to as the total amount of money you get for your product.

\[
\text{Gross Income} = \text{Physical Quantity} \times \text{Price/unit}
\]

2. Net Income: Gross income minus total cost is referred to as net income.

\[
\text{Net Income} = \text{Gross Income} - \text{Total Cost}
\]

3. Input-Output Ratio: It indicates the relation between the quantity of material used in the production and the quantity of final output.

\[
\text{Input} - \text{Output Ratio} = \frac{\text{Gross Income}}{\text{Total Input}}
\]

\[
\text{Total input} = \text{Value of purchasing raw material and use of resources.}
\]

\[
\text{Total output} = \text{The quantity of various product sold by SHGs was treated as the output values.}
\]

4. Benefit Cost Ratio: Here we will compare the present worth of costs with present worth of benefits. It is a profitability indicator.

\[
\text{B/C Ratio} = \frac{\text{Net Income}}{\text{Total cost}}
\]

5. Variable cost ratio (VC Ratio)

The variable cost ratio is an expression of a SHG’s variable production costs as a percentage of sales, calculated as variable costs divided by total gross income.

\[
\text{VC Ratio} = \left( \frac{\text{Variable cost}}{\text{Gross income}} \right) \times 100
\]

With the help of this ratio, the management will be able to plan how much gross income required covering the cost and how the profit is going to change with the production level. This can be used as a tool for future production, budget, pricing, and profitability.

Results and Discussions

Jai Maa Sharda SHG

Jai maa sharda SHG is a popular group of members of this block, under this SHG 10 members work together with mutual help. Table 1 shows the cost and returns of paper plate industry Rs/month, the paper plate, dinner plate, and cup were made by the Jai Maa Sharda SHG. The total costs were found to be 34700 Rs on paper plate, 46000 Rs on dinner plate and 24500 Rs on cups. The gross incomes were 80000 Rs from paper plate, 60000 Rs from dinner plate and 60000 Rs from cup. The net incomes were 45300 Rs from paper plate, 14000 Rs from dinner plate, and 35500 Rs from cup. The benefit-cost ratios were 1.30 for paper plate, 0.30 for dinner plate, and 1.44 for cup. The variable cost ratios in percentage were 43.37% for paper plate, 76.66% for dinner plate, and 40.83% for cup.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particular</th>
<th>Paper plate</th>
<th>Dinner plate</th>
<th>Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raw material (Thermal Col and paper roll)</td>
<td>22000 (63.40)</td>
<td>32000 (69.56)</td>
<td>14000 (57.14)</td>
</tr>
<tr>
<td>2</td>
<td>Manpower</td>
<td>4000 (11.52)</td>
<td>5000 (10.86)</td>
<td>3500 (14.28)</td>
</tr>
<tr>
<td>3</td>
<td>Electricity charge</td>
<td>3000 (8.64)</td>
<td>4000 (8.69)</td>
<td>2500 (10.20)</td>
</tr>
<tr>
<td>4</td>
<td>Packaging</td>
<td>2700 (7.78)</td>
<td>2500 (5.43)</td>
<td>2000 (8.16)</td>
</tr>
<tr>
<td>5</td>
<td>Others</td>
<td>3000 (8.64)</td>
<td>2500 (5.43)</td>
<td>2500 (10.20)</td>
</tr>
<tr>
<td>6</td>
<td>Total cost</td>
<td>34700 (100.00)</td>
<td>46000 (100.00)</td>
<td>24500 (100.00)</td>
</tr>
<tr>
<td>7</td>
<td>Total production (quantity)</td>
<td>160000</td>
<td>100000</td>
<td>120000</td>
</tr>
<tr>
<td>8</td>
<td>Sale price</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>9</td>
<td>Total income</td>
<td>80000</td>
<td>60000</td>
<td>60000</td>
</tr>
<tr>
<td>10</td>
<td>Net income</td>
<td>45300</td>
<td>14000</td>
<td>35500</td>
</tr>
<tr>
<td>11</td>
<td>Input-output ratio</td>
<td>2.30</td>
<td>1.30</td>
<td>2.44</td>
</tr>
<tr>
<td>12</td>
<td>B-C ratio</td>
<td>1.30</td>
<td>0.30</td>
<td>1.44</td>
</tr>
<tr>
<td>13</td>
<td>Variable cost ratio</td>
<td>0.43</td>
<td>0.76</td>
<td>0.40</td>
</tr>
<tr>
<td>14</td>
<td>Variable Cost ratio in %age</td>
<td>43.37</td>
<td>76.66</td>
<td>40.83</td>
</tr>
</tbody>
</table>

Note: Figures in parenthesis shows the percentage to total cost.
Business performance of Jai Maa Sharda SHG
The business performance of Jai Maa Sharda SHG is presented in Table 2. The total sales in a year were 1280000 paper plates, 800000 dinner plates, 960000 cups. Net returns/ year of Jai Maa Sharda SHG was 748800 Rs and per member net return was 62400 Rs. Maximum profit earned from the paper plates (47.86%) followed by others.

Table 2: Business performance of Jai Maa Sharda SHG

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particular</th>
<th>Total sale in a year</th>
<th>Net returns per units in Rs.</th>
<th>Net returns/year in Rs.</th>
<th>Per member net return</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paper Plate</td>
<td>1280000</td>
<td>0.28</td>
<td>358400 (47.86)</td>
<td>29866.67</td>
</tr>
<tr>
<td>2</td>
<td>Dinner plate</td>
<td>800000</td>
<td>0.14</td>
<td>112000 (14.95)</td>
<td>9333.33</td>
</tr>
<tr>
<td>3</td>
<td>Cup</td>
<td>960000</td>
<td>0.29</td>
<td>278400 (37.17)</td>
<td>23200</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>748800 (100.00)</td>
<td>62400</td>
</tr>
</tbody>
</table>

Note: figures in parenthesis shows the percentage to net returns per year in Rs.

Disposable pattern of paper plate, dinner plate and cup made by Jai Maa Sharda SHG
Disposable pattern of paper plate, dinner plate and cup presented in table 3. Maximum quantity sailed out through marketing channels- paper plate (Wholesale, 54.68%), dinner plate (Wholesale, 41.87%), cup (Wholesale, 41.66%). Maximum quantity sailed out in wholesale market.

Table 3: Disposable pattern of paper plate, dinner plate and cup made by Jai Maa Sharda

<table>
<thead>
<tr>
<th>Particular</th>
<th>Quantity sale per year through different channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>SHG-Retailer</td>
</tr>
<tr>
<td>Paper plate</td>
<td>200000 (15.62)</td>
</tr>
<tr>
<td>Pattal</td>
<td>255000 (31.87)</td>
</tr>
<tr>
<td>Cup</td>
<td>320000 (33.33)</td>
</tr>
</tbody>
</table>

Note: Figures in parenthesis shows the percentage to quantity sale per year through different marketing channels.
Constraints
1. Price of raw materials in the market,
2. Shortage of manpower for selling the products,
3. Fluctuations in the demand for their products and
4. A lack of advertisement.

Conclusion
The paper plate industry is very popular now days in Chhattisgarh plains. The paper plate market is experiencing significant growth, driven by factors such as convenience, cost effectiveness and the increasing demand for eco-friendly option. They also save space and are many times lighter than porcelain plates. Paper plates also don’t break if they accidentally fall on the floor. The total sales in a year were 1280000 paper plates, 800000 dinner plates, 9600000 cups. Net returns/year of Jai Maa Sharda SHG was 7488000 Rs and per member net return was 62400 Rs. Maximum profit earned from the paper plates (47.86%) followed by profit earned from the compost product of Kamdhenu self help group of Surguja district of Chhattisgarh. Pharma Innovation. 2023;12(7):1715

Suggestions
1. Enhance the SHGs’ business performance, it is recommended to advertise their products on social media platforms and FM radio.
2. Additionally, increasing the SHGs’ loan amount and establishing links with local supermarkets can boost their operations.
3. Organizing training programs to develop entrepreneurial capabilities and improving the quality of packaging and grading are also advised.
4. It is suggested that motivational campaign may be conducted for inculcating saving habit in the minds of the members.

References