Estimated Cost of Production Equipment

<table>
<thead>
<tr>
<th>Process</th>
<th>Capacity</th>
<th>Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puffing Machine</td>
<td>60-90 kg per hr</td>
<td>2,500</td>
</tr>
<tr>
<td>Sugar Boiler</td>
<td>100 L</td>
<td>2,950</td>
</tr>
<tr>
<td>Mixing Machine</td>
<td>50 R/min</td>
<td>2,060</td>
</tr>
<tr>
<td>Forming Machine</td>
<td>150-300 pc/min</td>
<td>14,080</td>
</tr>
<tr>
<td>Packaging Machine</td>
<td>30-280 bag/min</td>
<td>7,380</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>28,970</strong></td>
</tr>
</tbody>
</table>

Production Ability– Projection

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
<th>Unit Cost (GYD)</th>
<th>Expense (GYD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Rice</td>
<td>50 kg</td>
<td>$6500</td>
<td>$6500</td>
</tr>
<tr>
<td>White Sugar</td>
<td>25 kg</td>
<td>$691/kg</td>
<td>$17,275</td>
</tr>
<tr>
<td>Salt</td>
<td>5 kg</td>
<td>$500</td>
<td>$2500</td>
</tr>
<tr>
<td>Oil</td>
<td>5 L</td>
<td>$500</td>
<td>$2500</td>
</tr>
<tr>
<td>Water</td>
<td>15L Approx</td>
<td>$500</td>
<td>$500</td>
</tr>
<tr>
<td>Packaging Film</td>
<td>1 roll</td>
<td>$4000</td>
<td>$4000</td>
</tr>
<tr>
<td>Power</td>
<td>16.35</td>
<td>$58</td>
<td>$948.3</td>
</tr>
<tr>
<td>Labour</td>
<td>4</td>
<td>$625/hr</td>
<td>$2500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$36,723</strong></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion

The price of $83 per bar appears more realistic when considering the local market, and it may be that even this is too high. However considering the estimated cost of production for one bar is approximately $20, and with additional ingredients and packaging even if the cost move to $40-50, selling at $83 would still yield relatively reasonable profit. Key to the success of this venture would be the marketing, where the brand, design and quality of packaging would be important.

Material and Quantity

The ingredients in the table above would produce approximately 90kg of the bar type rice cake. With an average weight of one bar approximately 50grams; 90kg would yield 1800 bars. The bars are usually sold in boxes of 6 bars per box. This would yield approximately 300box of puffed rice cakes. The price per box is quoted on [http://www.amazon.com](http://www.amazon.com) on the 28th February, 2013 at US $20 per box of 6. The price may vary depending on additional ingredients used. US $20 dollars converted with a rate of 1 to 200 GYD is equivalent to $4,000 GYD.

300boxes x 4000 per box = 1,200,000 .... works out to $666/bar  
300boxes x 1000 per box = 300,000 .... works out to $166/bar  
300 box x 500 per box = 150,000 .... works out to $83/bar
Introduction
Rice snacks are based on rice, offer great variation in taste and form, have a low fat percentage and are easy to digest. The puff rice cake production line’s primary output is puffed rice cakes. These can be in various forms such as bar, cake, ball and round. Rice cakes are made with either brown or white rice and are popular because they provide fiber (brown rice cake), energy and are low in calories.

Production Line
The production line consists of:

- Puffing machine
- Sugar Boiler
- Mixing Machine
- Automatic Forming Machine
- Packaging Machine

The operation of the line is simple and straightforward where the rice is puffed in the puffing machine, the syrup is boiled in the sugar boiler, both puffed rice and syrup is mixed in the mixing machine from where it goes to the forming machine to be shaped into bar, cake, ball or round depending on the mould used after which it is packaged.

Equipment

Puffing machine
- Power: 0.75kw
- Output: 60-90kg/h
- Voltage: 380v/50Hz
- Dimension: 1650*800*1350mm
- Weight: 380kg

Sugar boiler
- Power: 7.5kw
- Volume: 100L
- Voltage: 380v/50Hz
- Dimension: 1000*1000*800mm
- Weight: 150kg

Mixing machine
- Power: 3kw
- Mixing speed: 50r/min
- Voltage: 380v/50Hz
- Dimension: 750*550*950mm
- Weight: 200kg

Automatic forming machine
- Output: 150-300pcs/min
- Power: 2.5Kw
- Voltage: 380v/50Hz
- Dimension: 5600*850*1400mm
- Weight: 1100kg

Packing machine
- Packing speed: 30-280bag/min
- Power: 2.6Kw
- Voltage: 220v/50Hz
- Dimension: 4000*900*1500mm
- Weight: 500kg

Products
Rice cake is the primary product of this line. Product variation can come in the form of ingredients used. They type of rice used; brown or white can differentiate the product into high or low fiber cakes. The syrup is the second point where variation can be introduced in the product line. This point offers more opportunity for variation since it determines the flavor of the cake, cakes can be sweet using sugar, chocolate or caramel syrup among others, or salty using salt based syrup.

Other products that can be made from this line are the puffed rice snacks. These can be puffed rice candy or spicy puffed rice snack. For puffed rice candy, the process is similar to that of rice cake, except the mixture does not go into the forming machine. The rice is puffed and mixed with the syrup in the mixing machine until the syrup is dried and hardened on the surface of the puffed rice. The continuous mixing makes the puffed rice loose. Different colouring and flavorings can be used to add variety.