



AN ISO 9001 : 2015 CERTIFIED COMPANY

Detailed project report

Sample edition

Projections from FY 2027-28

Project report

# Biscuits

Installed capacity 2,800 kg per day

Sector Bakery and confectionery

Total project cost ₹209.39 lakh

**Illustrative sample**  
Figures are representative

## Project at a glance

Biscuits  
2,800 kg per day

| Product                | Biscuits            | Sector                  | Bakery and confectionery |
|------------------------|---------------------|-------------------------|--------------------------|
| Installed capacity     | 2,800 kg per day    | Annual capacity         | 8,40,000 kg per year     |
| Selling price (ex-GST) | ₹103 per kg         | Working days            | 300 a year               |
| Manpower               | 28 people           | Plant and machinery     | ₹102.50 lakh             |
| Total project cost     | <b>₹209.39 lakh</b> | Promoter's contribution | ₹52.35 lakh (25%)        |
| Term loan              | ₹157.04 lakh (75%)  | Cash credit limit       | ₹27.40 lakh              |
| Revenue, Year 3        | ₹605.64 lakh at 70% | Net profit, Year 3      | ₹65.80 lakh              |
| Return on investment   | <b>31.4% a year</b> | Break-even, Year 3      | <b>39.5% of capacity</b> |
| Average DSCR           | <b>2.32</b>         | Payback period          | 2.8 years                |

This is an illustrative sample. Its figures are generated from industry-typical ratios to show the format and depth of an NPCS project report. They are not taken from any NPCS report or any real project, and should not be used for investment or lending decisions.

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## 1 Introduction

The project modelled here is a unit producing biscuits in the bakery and confectionery sector, sized at 2,800 kg per day. Working 300 days a year, the plant can turn out 8,40,000 kg per year at full capacity. The product's applications range from retail sale through kirana stores to institutional and school meal supply.

Each section follows the layout of a bank-format project report: project cost, means of finance, working capital, profitability, cash flow, balance sheet, debt service and break-even. In Year 3, running at 70% of capacity, the model unit sells ₹605.64 lakh worth of biscuits and keeps ₹65.80 lakh as net profit.

## 2 Uses and applications

The main applications and markets for the product are:

- Retail sale through kirana stores
- Tea stalls and canteens
- Supermarket private labels
- Institutional and school meal supply

## 3 Market potential

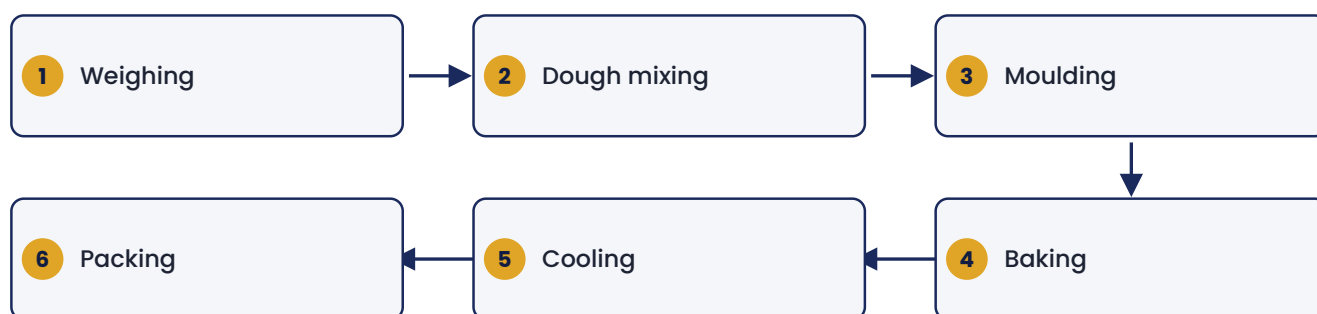
Plain glucose, Marie and salted biscuits are bought every day with tea across India, and most small towns are served by regional brands and private labels rather than only by national companies. A small unit competes on freshness, ex-factory price and distributor margin, and many also make biscuits under contract for larger brands or retail chains. Fat and sugar prices, packaging quality and how far the distributor network reaches decide how much a unit can sell.

Sales are typically made to distributors and stockists for kirana stores; supermarkets and retail chains buying private label; larger biscuit brands buying on contract; tea stalls, canteens and institutional buyers; and wholesalers in nearby towns.

For a real project, the market survey is redone for the chosen location, covering present demand, expected growth and the existing manufacturers nearby.

## 4 Manufacturing process

The plant converts raw materials into finished biscuits in six steps, shown in the flow chart and described below.



Process flow for biscuits

- 1 Weighing.** Flour, sugar, fat and other ingredients are weighed as per the recipe.
- 2 Dough mixing.** Ingredients are mixed into a uniform dough in a horizontal mixer.
- 3 Moulding.** The rotary moulder shapes the dough into biscuits on a moving belt.
- 4 Baking.** Biscuits pass through a tunnel oven at controlled temperature.
- 5 Cooling.** Baked biscuits are cooled on a conveyor before packing.
- 6 Packing.** Biscuits are packed in printed pouches and cartons.

## 5 Raw materials

The main raw materials are wheat flour (maida); sugar; vegetable fat; milk solids and glucose; and leavening agents, salt and flavours. In Year 3, at 70% utilisation, raw materials cost ₹296.34 lakh, about 48.9% of sales. The table shows how this cost splits between materials.

| Raw material                        | Share of cost | Year 3 cost (₹ lakh) |
|-------------------------------------|---------------|----------------------|
| Wheat flour (maida)                 | 42.0%         | 124.46               |
| Sugar                               | 20.0%         | 59.27                |
| Vegetable fat                       | 20.0%         | 59.27                |
| Milk solids and glucose             | 8.0%          | 23.71                |
| Leavening agents, salt and flavours | 10.0%         | 29.63                |
| <b>Total raw materials</b>          | <b>100.0%</b> | <b>296.34</b>        |

## 6 Plant and machinery

Plant and machinery accounts for ₹102.50 lakh of the project cost. The semi-automatic biscuit production line with rotary moulder takes the largest share, and the other items and their indicative costs are listed below.

| Machinery and equipment                                    | Indicative cost (₹ lakh) |
|------------------------------------------------------------|--------------------------|
| Semi-automatic biscuit production line with rotary moulder | 46.13                    |
| Gas-fired tunnel oven                                      | 25.63                    |
| Dough mixer                                                | 8.20                     |
| Cooling conveyor                                           | 7.17                     |
| Sugar grinder                                              | 5.12                     |
| Pillow pouch packing machine                               | 10.25                    |
| <b>Total plant and machinery</b>                           | <b>102.50</b>            |

## 7 Land, building and utilities

Land and site development is taken at ₹14.46 lakh and building and civil works at ₹57.47 lakh. Other fixed assets, including electrification, furniture, testing equipment and power backup, add ₹12.95 lakh. Land rates vary widely by location, so these are the figures most likely to change in a real project.

Power and fuel cost ₹35.30 lakh in Year 3, about 5.8% of sales. Water is needed for cleaning, domestic use and, where the process calls for it, production.

## 8 Manpower

A team of 28 runs the plant, from management and supervision to skilled operators and helpers. The Year 1 wage bill is ₹56.28 lakh, rising 5% a year.

| Category                                   | Number    | Monthly wage (₹) | Annual cost (₹ lakh) |
|--------------------------------------------|-----------|------------------|----------------------|
| Management, supervision and administration | 4         | 29,000           | 13.92                |
| Skilled workers and operators              | 10        | 18,500           | 22.20                |
| Semi-skilled and unskilled workers         | 14        | 12,000           | 20.16                |
| <b>Total (Year 1)</b>                      | <b>28</b> |                  | <b>56.28</b>         |

## 9 Licences and approvals

The main registrations and approvals for a unit like this are listed below. They differ from state to state, so check the current requirements with the relevant departments.

- Udyam (MSME) registration
- GST registration
- Consent to establish and consent to operate from the State Pollution Control Board
- Factory licence or registration under the applicable labour law, where the workforce threshold applies
- Fire safety NOC, where required
- Trade licence from the local body
- FSSAI state manufacturing licence, biscuits are covered under regulation 2.4.15 of the food product standards
- Legal Metrology registration as a packer of pre-packaged commodities under Rule 27
- IS 1011 biscuit specification from BIS, voluntary

## 10 Project cost and means of finance

Setting up the unit costs ₹209.39 lakh in all, of which plant and machinery is ₹102.50 lakh. The estimate includes a 5% contingency on building and machinery, pre-operative expenses and the margin money needed to start working capital.

| Cost of project                                                        | ₹ lakh        |
|------------------------------------------------------------------------|---------------|
| Land and site development                                              | 14.46         |
| Building and civil works                                               | 57.47         |
| Plant and machinery                                                    | 102.50        |
| Other fixed assets (electrification, furniture, lab equipment, DG set) | 12.95         |
| Contingencies                                                          | 8.00          |
| Preliminary and pre-operative expenses                                 | 4.88          |
| Margin money for working capital                                       | 9.13          |
| <b>Total cost of project</b>                                           | <b>209.39</b> |

## Means of finance

The promoter contributes ₹52.35 lakh (25% of project cost) and a term loan funds the remaining ₹157.04 lakh. Working capital is supported by a cash credit limit of ₹27.40 lakh.

| Source of funds                                         | ₹ lakh        |
|---------------------------------------------------------|---------------|
| Promoter's contribution (25%)                           | 52.35         |
| Term loan from bank (75%)                               | 157.04        |
| <b>Total means of finance</b>                           | <b>209.39</b> |
| <i>Cash credit limit for working capital (separate)</i> | <i>27.40</i>  |

## 11 Working capital

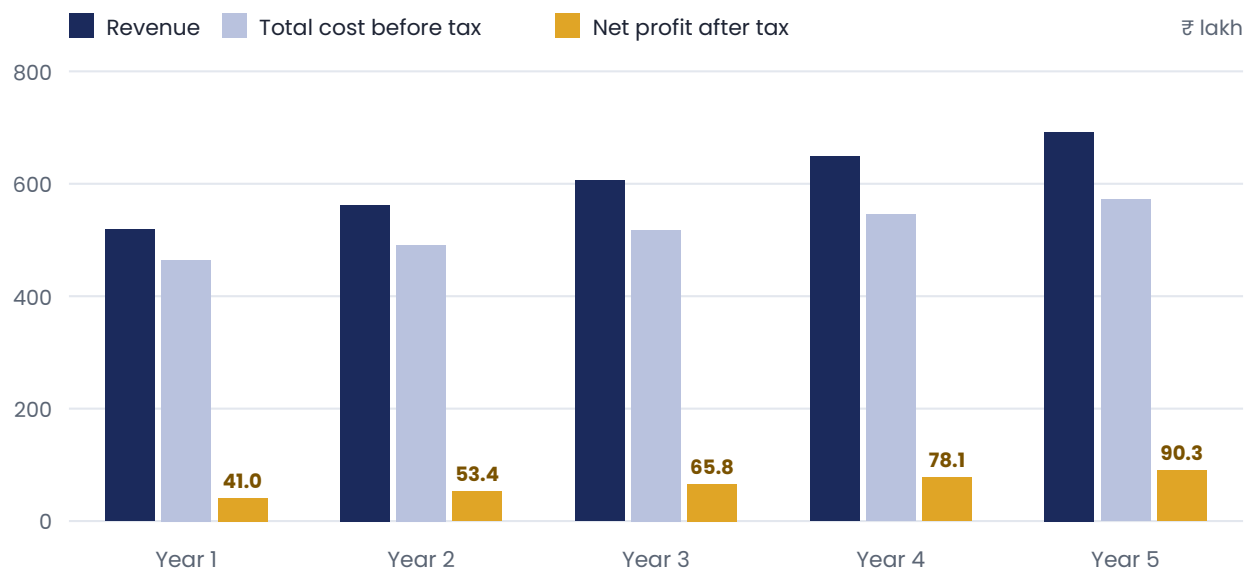
Working capital is worked out from holding periods: 15 days of raw material, 7 days of finished goods and 21 days of credit to customers, less 15 days of credit from suppliers. In Year 1 the requirement is ₹36.53 lakh. The bank funds ₹27.40 lakh through cash credit and the promoter's margin covers ₹9.13 lakh.

| Particulars (₹ lakh)               | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Raw material stock (15 days)       | 10.44                | 11.31                | 12.18                | 13.05                | 13.92                |
| Work in progress (1 days)          | 0.93                 | 1.01                 | 1.08                 | 1.15                 | 1.23                 |
| Finished goods (7 days)            | 7.33                 | 7.90                 | 8.48                 | 9.06                 | 9.64                 |
| Trade receivables (21 days)        | 29.87                | 32.36                | 34.85                | 37.33                | 39.82                |
| <b>Total current assets</b>        | <b>48.57</b>         | <b>52.58</b>         | <b>56.59</b>         | <b>60.59</b>         | <b>64.61</b>         |
| Less: trade creditors (15 days)    | 12.04                | 13.04                | 14.04                | 15.05                | 16.05                |
| <b>Working capital requirement</b> | <b>36.53</b>         | <b>39.54</b>         | <b>42.55</b>         | <b>45.54</b>         | <b>48.56</b>         |

## 12 Projected profitability

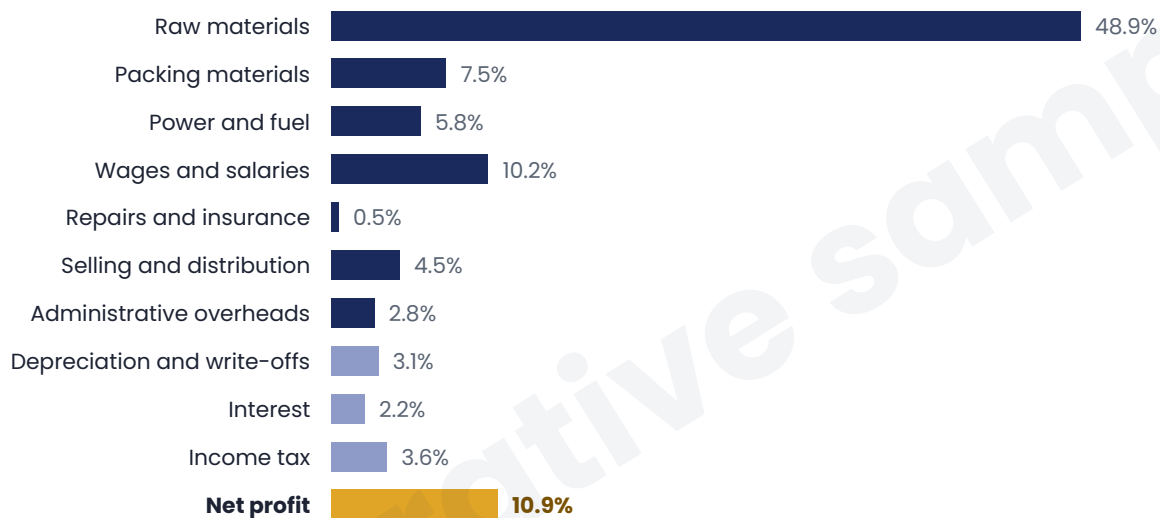
Revenue grows from ₹519.12 lakh in Year 1, at 60% utilisation, to ₹692.16 lakh in Year 5 at 80%.  
Net profit rises from ₹41.02 lakh to ₹90.34 lakh over the same period, an average net margin of 10.7%.

| Particulars (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Capacity utilisation (%)          | 60%                  | 65%                  | 70%                  | 75%                  | 80%                  |
| Revenue from operations           | 519.12               | 562.38               | 605.64               | 648.90               | 692.16               |
| Raw materials consumed            | 254.01               | 275.17               | 296.34               | 317.51               | 338.67               |
| Packing materials                 | 38.91                | 42.16                | 45.40                | 48.64                | 51.88                |
| Power and fuel                    | 30.26                | 32.78                | 35.30                | 37.82                | 40.35                |
| Wages and salaries                | 56.28                | 59.09                | 62.05                | 65.15                | 68.41                |
| Repairs and maintenance           | 2.05                 | 2.15                 | 2.26                 | 2.37                 | 2.49                 |
| Insurance                         | 0.72                 | 0.72                 | 0.72                 | 0.72                 | 0.72                 |
| Cost of production                | 382.23               | 412.07               | 442.07               | 472.21               | 502.52               |
| <b>Gross profit</b>               | <b>136.89</b>        | <b>150.31</b>        | <b>163.57</b>        | <b>176.69</b>        | <b>189.64</b>        |
| Selling and distribution expenses | 23.11                | 25.03                | 26.96                | 28.88                | 30.81                |
| Administrative overheads          | 15.44                | 16.22                | 17.03                | 17.88                | 18.77                |
| <b>Operating profit (EBITDA)</b>  | <b>98.34</b>         | <b>109.06</b>        | <b>119.58</b>        | <b>129.93</b>        | <b>140.06</b>        |
| Depreciation                      | 23.47                | 20.31                | 17.61                | 15.26                | 13.24                |
| Preliminary expenses written off  | 0.98                 | 0.98                 | 0.98                 | 0.98                 | 0.96                 |
| Interest on term loan             | 16.19                | 13.58                | 10.24                | 6.52                 | 2.40                 |
| Interest on cash credit           | 3.01                 | 3.01                 | 3.01                 | 3.01                 | 3.01                 |
| <b>Profit before tax</b>          | <b>54.69</b>         | <b>71.18</b>         | <b>87.74</b>         | <b>104.16</b>        | <b>120.45</b>        |
| Income tax                        | 13.67                | 17.80                | 21.94                | 26.04                | 30.11                |
| <b>Profit after tax</b>           | <b>41.02</b>         | <b>53.38</b>         | <b>65.80</b>         | <b>78.12</b>         | <b>90.34</b>         |



Revenue, total cost before tax and net profit after tax, ₹ lakh

### Where each rupee of sales goes in Year 3



Each cost head as a percentage of Year 3 sales

## 13 Cash flow statement

Cash generated from profit and depreciation covers the term loan repayments in every year. The closing cash balance builds up to ₹254.36 lakh by the end of Year 5.

| Particulars (₹ lakh)                    | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Sources of funds</b>                 |                      |                      |                      |                      |                      |
| Promoter's contribution                 | 52.35                | –                    | –                    | –                    | –                    |
| Term loan from bank                     | 157.04               | –                    | –                    | –                    | –                    |
| Cash credit (working capital) from bank | 27.40                | –                    | –                    | –                    | –                    |
| Net profit after tax                    | 41.02                | 53.38                | 65.80                | 78.12                | 90.34                |
| Depreciation                            | 23.47                | 20.31                | 17.61                | 15.26                | 13.24                |
| Preliminary expenses written off        | 0.98                 | 0.98                 | 0.98                 | 0.98                 | 0.96                 |
| Increase in trade creditors             | 12.04                | 1.00                 | 1.00                 | 1.01                 | 1.00                 |
| <b>Total sources</b>                    | <b>314.30</b>        | <b>75.67</b>         | <b>85.39</b>         | <b>95.37</b>         | <b>105.54</b>        |
| <b>Application of funds</b>             |                      |                      |                      |                      |                      |
| Fixed assets                            | 195.38               | –                    | –                    | –                    | –                    |
| Preliminary and pre-operative expenses  | 4.88                 | –                    | –                    | –                    | –                    |
| Increase in inventories                 | 18.70                | 1.52                 | 1.52                 | 1.52                 | 1.53                 |
| Increase in trade receivables           | 29.87                | 2.49                 | 2.49                 | 2.48                 | 2.49                 |
| Repayment of term loan                  | 14.03                | 30.35                | 33.71                | 37.41                | 41.54                |
| Drawings                                | –                    | –                    | –                    | –                    | –                    |
| <b>Total application</b>                | <b>262.86</b>        | <b>34.36</b>         | <b>37.72</b>         | <b>41.41</b>         | <b>45.56</b>         |
| <b>Net cash flow</b>                    | <b>51.44</b>         | <b>41.31</b>         | <b>47.67</b>         | <b>53.96</b>         | <b>59.98</b>         |
| Opening cash balance                    | –                    | 51.44                | 92.75                | 140.42               | 194.38               |
| <b>Closing cash balance</b>             | <b>51.44</b>         | <b>92.75</b>         | <b>140.42</b>        | <b>194.38</b>        | <b>254.36</b>        |

## 14 Projected balance sheet

Over the projection, retained profits build the promoter's net worth from ₹89.47 lakh to ₹381.01 lakh, and the term loan reduces from ₹143.01 lakh to nil as it is repaid.

| As at year end (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Liabilities</b>                   |                      |                      |                      |                      |                      |
| Promoter's capital                   | 52.35                | 52.35                | 52.35                | 52.35                | 52.35                |
| Reserves and surplus                 | 41.02                | 94.40                | 160.20               | 238.32               | 328.66               |
| Term loan                            | 143.01               | 112.66               | 78.95                | 41.54                | –                    |
| Cash credit from bank                | 27.40                | 27.40                | 27.40                | 27.40                | 27.40                |
| Trade creditors                      | 12.04                | 13.04                | 14.04                | 15.05                | 16.05                |
| <b>Total liabilities</b>             | <b>275.82</b>        | <b>299.85</b>        | <b>332.94</b>        | <b>374.66</b>        | <b>424.46</b>        |
| <b>Assets</b>                        |                      |                      |                      |                      |                      |
| Gross fixed assets                   | 195.38               | 195.38               | 195.38               | 195.38               | 195.38               |
| Less: accumulated depreciation       | (23.47)              | (43.78)              | (61.39)              | (76.65)              | (89.89)              |
| <b>Net fixed assets</b>              | <b>171.91</b>        | <b>151.60</b>        | <b>133.99</b>        | <b>118.73</b>        | <b>105.49</b>        |
| Preliminary expenses not written off | 3.90                 | 2.92                 | 1.94                 | 0.96                 | –                    |
| Inventories                          | 18.70                | 20.22                | 21.74                | 23.26                | 24.79                |
| Trade receivables                    | 29.87                | 32.36                | 34.85                | 37.33                | 39.82                |
| Cash and bank balance                | 51.44                | 92.75                | 140.42               | 194.38               | 254.36               |
| <b>Total assets</b>                  | <b>275.82</b>        | <b>299.85</b>        | <b>332.94</b>        | <b>374.66</b>        | <b>424.46</b>        |

## 15 Depreciation

Fixed assets are depreciated on the written-down value method, at 15% a year for plant and machinery, 10% for building and 10% for other assets. Land carries no depreciation.

Preliminary and pre-operative expenses are written off in equal parts over five years.

| Particulars (₹ lakh)                                        | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Building and civil works (cost ₹60.34 lakh, 10% WDV)</b> |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 60.34                | 54.31                | 48.88                | 43.99                | 39.59                |
| Depreciation                                                | 6.03                 | 5.43                 | 4.89                 | 4.40                 | 3.96                 |
| Closing written-down value                                  | 54.31                | 48.88                | 43.99                | 39.59                | 35.63                |
| <b>Plant and machinery (cost ₹107.63 lakh, 15% WDV)</b>     |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 107.63               | 91.49                | 77.77                | 66.10                | 56.18                |
| Depreciation                                                | 16.14                | 13.72                | 11.67                | 9.92                 | 8.43                 |
| Closing written-down value                                  | 91.49                | 77.77                | 66.10                | 56.18                | 47.75                |
| <b>Other fixed assets (cost ₹12.95 lakh, 10% WDV)</b>       |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 12.95                | 11.65                | 10.49                | 9.44                 | 8.50                 |
| Depreciation                                                | 1.30                 | 1.16                 | 1.05                 | 0.94                 | 0.85                 |
| Closing written-down value                                  | 11.65                | 10.49                | 9.44                 | 8.50                 | 7.65                 |
| <b>Total depreciation</b>                                   | <b>23.47</b>         | <b>20.31</b>         | <b>17.61</b>         | <b>15.26</b>         | <b>13.24</b>         |
| Preliminary expenses written off                            | 0.98                 | 0.98                 | 0.98                 | 0.98                 | 0.96                 |

## 16 Term loan repayment

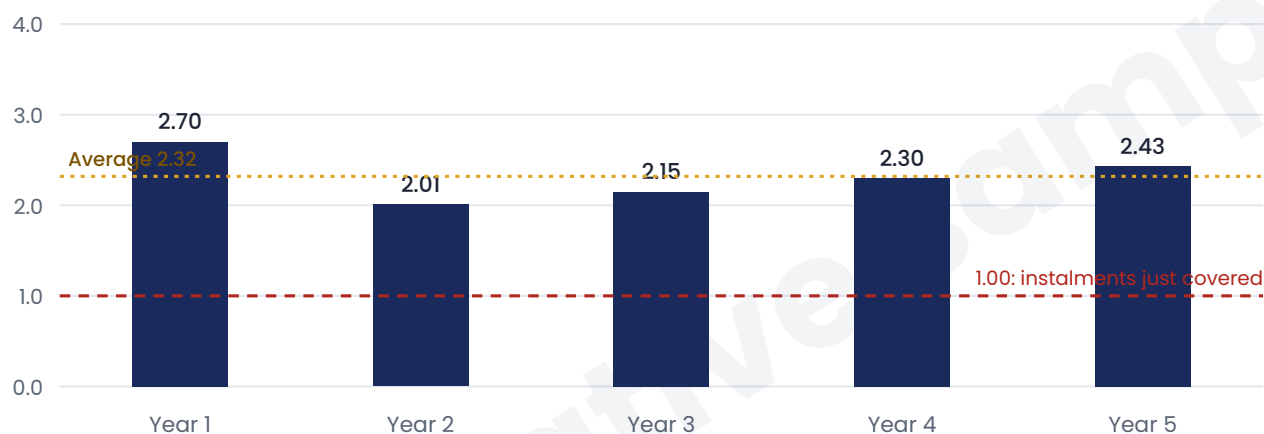
The term loan of ₹157.04 lakh carries interest at 10.5% a year. Only interest is paid during the 6-month moratorium, after which the loan is repaid in 54 equal monthly instalments of ₹3,66,158. The month-by-month schedule is in the annexure.

| Particulars (₹ lakh)   | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Opening balance        | 157.04               | 143.01               | 112.66               | 78.95                | 41.54                |
| Interest               | 16.19                | 13.58                | 10.24                | 6.52                 | 2.40                 |
| Principal repaid       | 14.03                | 30.35                | 33.71                | 37.41                | 41.54                |
| <b>Closing balance</b> | <b>143.01</b>        | <b>112.66</b>        | <b>78.95</b>         | <b>41.54</b>         | <b>—</b>             |

## 17 Debt service coverage

The debt service coverage ratio averages 2.32 over the repayment years, with a low of 2.01 in Year 2. A DSCR above 1 means the unit earns enough to meet its loan instalments, and the model keeps a margin above that in every year.

| Particulars (₹ lakh)                        | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|---------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Net profit after tax                        | 41.02                | 53.38                | 65.80                | 78.12                | 90.34                |
| Depreciation and write-offs                 | 24.45                | 21.29                | 18.59                | 16.24                | 14.20                |
| Interest on term loan                       | 16.19                | 13.58                | 10.24                | 6.52                 | 2.40                 |
| <b>Total available for debt service (A)</b> | <b>81.66</b>         | <b>88.25</b>         | <b>94.63</b>         | <b>100.88</b>        | <b>106.94</b>        |
| Principal repayment                         | 14.03                | 30.35                | 33.71                | 37.41                | 41.54                |
| Interest on term loan                       | 16.19                | 13.58                | 10.24                | 6.52                 | 2.40                 |
| <b>Total debt service (B)</b>               | <b>30.22</b>         | <b>43.93</b>         | <b>43.95</b>         | <b>43.93</b>         | <b>43.94</b>         |
| <b>DSCR (A / B)</b>                         | <b>2.70</b>          | <b>2.01</b>          | <b>2.15</b>          | <b>2.30</b>          | <b>2.43</b>          |

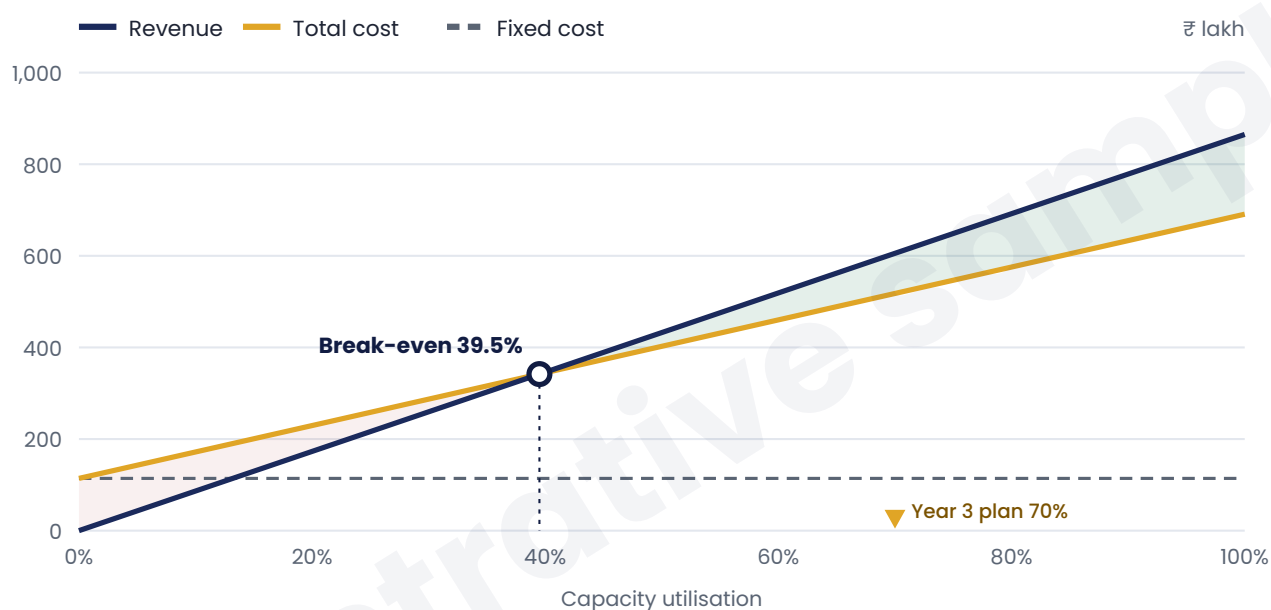


DSCR by year. A ratio above 1.00 means cash accruals cover the term loan instalments.

## 18 Break-even analysis

At Year 3 levels the unit breaks even at 39.5% of installed capacity, against planned utilisation of 70%. On a cash basis, leaving out depreciation and write-offs, break-even falls to 33.1%.

| Particulars (₹ lakh)                          | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Revenue from operations                       | 519.12               | 562.38               | 605.64               | 648.90               | 692.16               |
| Variable costs                                | 346.29               | 375.14               | 404.00               | 432.85               | 461.71               |
| <b>Contribution</b>                           | <b>172.83</b>        | <b>187.24</b>        | <b>201.64</b>        | <b>216.05</b>        | <b>230.45</b>        |
| Fixed costs (incl. depreciation and interest) | 118.14               | 116.06               | 113.90               | 111.89               | 110.00               |
| Break-even as % of installed capacity         | 41.0                 | 40.3                 | 39.5                 | 38.8                 | 38.2                 |
| Cash break-even as % of installed capacity    | 32.5                 | 32.9                 | 33.1                 | 33.2                 | 33.3                 |
| Break-even sales                              | 354.85               | 348.59               | 342.11               | 336.06               | 330.39               |



Break-even chart at Year 3 prices and costs, scaled to full capacity. Shaded areas show the loss zone (left) and profit zone (right).

## 19 Financial ratios

Liquidity and leverage improve over the projection. The current ratio stays at or above 2.54, while debt-equity drops from 1.60 to zero as the term loan is repaid.

| Ratio                                     | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Current ratio                             | 2.54                 | 3.59                 | 4.75                 | 6.01                 | 7.34                 |
| Quick ratio                               | 2.06                 | 3.09                 | 4.23                 | 5.46                 | 6.77                 |
| Debt-equity ratio (term loan / net worth) | 1.60                 | 0.78                 | 0.37                 | 0.14                 | 0.00                 |
| Total outside liabilities / net worth     | 2.04                 | 1.06                 | 0.57                 | 0.29                 | 0.11                 |
| Interest coverage ratio                   | 3.85                 | 5.29                 | 7.62                 | 11.93                | 23.26                |
| DSCR                                      | 2.70                 | 2.01                 | 2.15                 | 2.30                 | 2.43                 |
| Gross profit margin (%)                   | 26.4                 | 26.7                 | 27.0                 | 27.2                 | 27.4                 |
| Operating profit (EBITDA) margin (%)      | 18.9                 | 19.4                 | 19.7                 | 20.0                 | 20.2                 |
| Net profit margin (%)                     | 7.9                  | 9.5                  | 10.9                 | 12.0                 | 13.1                 |
| Return on capital employed (%)            | 28.4                 | 30.9                 | 31.9                 | 31.7                 | 30.8                 |
| Break-even (% of installed capacity)      | 41.0                 | 40.3                 | 39.5                 | 38.8                 | 38.2                 |

## 20 Key assumptions

- Commercial production starts in April 2027, and all assets are in use from the first year.
- Capacity utilisation of 60% in Year 1, rising to 80% by Year 5, over 300 working days a year.
- Selling price of ₹103 per kg, excluding GST, held constant through the projection.
- Raw materials at 48.9% of sales, packing materials at 7.5%, power and fuel at 5.8%, and selling and distribution at 4.5%.
- Wages and salaries rise by 5% a year; repairs and administrative overheads rise by 5% a year.
- Working capital based on 15 days of raw material, 1 day of work in progress, 7 days of finished goods and 21 days of receivables, less 15 days of creditors.
- Term loan at 10.5% interest with a 6-month moratorium and 54 monthly instalments; cash credit at 11% on 75% of the working capital requirement.
- Depreciation on the written-down value method at Income Tax Act rates; income tax at a flat 25% of profit for simplicity.
- Contingency of 5% on building and machinery; preliminary and pre-operative expenses written off over five years.
- All amounts in ₹ lakh unless stated otherwise, excluding GST.

## 21 Conclusion

The model shows that a biscuits unit sized at 2,800 kg per day can be financed 75:25 by a bank and its promoter, service its loan with an average DSCR of 2.32, and return about 31.4% a year on a project cost of ₹209.39 lakh. These are sample figures. A real project needs a report built on its own site, quotations and market.

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## A Annexure: monthly loan repayment schedule

Term loan of ₹157.04 lakh at 10.5% a year. Amounts in ₹ lakh.

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 1   | Apr 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 2   | May 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 3   | Jun 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 4   | Jul 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 5   | Aug 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 6   | Sep 2027 | 157.04          | 1.37     | –         | 1.37       | 157.04          |
| 7   | Oct 2027 | 157.04          | 1.37     | 2.29      | 3.66       | 154.75          |
| 8   | Nov 2027 | 154.75          | 1.35     | 2.31      | 3.66       | 152.45          |
| 9   | Dec 2027 | 152.45          | 1.33     | 2.33      | 3.66       | 150.12          |
| 10  | Jan 2028 | 150.12          | 1.31     | 2.35      | 3.66       | 147.77          |
| 11  | Feb 2028 | 147.77          | 1.29     | 2.37      | 3.66       | 145.40          |
| 12  | Mar 2028 | 145.40          | 1.27     | 2.39      | 3.66       | 143.01          |
| 13  | Apr 2028 | 143.01          | 1.25     | 2.41      | 3.66       | 140.60          |
| 14  | May 2028 | 140.60          | 1.23     | 2.43      | 3.66       | 138.17          |
| 15  | Jun 2028 | 138.17          | 1.21     | 2.45      | 3.66       | 135.72          |
| 16  | Jul 2028 | 135.72          | 1.19     | 2.47      | 3.66       | 133.24          |
| 17  | Aug 2028 | 133.24          | 1.17     | 2.50      | 3.66       | 130.75          |
| 18  | Sep 2028 | 130.75          | 1.14     | 2.52      | 3.66       | 128.23          |
| 19  | Oct 2028 | 128.23          | 1.12     | 2.54      | 3.66       | 125.69          |
| 20  | Nov 2028 | 125.69          | 1.10     | 2.56      | 3.66       | 123.13          |
| 21  | Dec 2028 | 123.13          | 1.08     | 2.58      | 3.66       | 120.54          |
| 22  | Jan 2029 | 120.54          | 1.05     | 2.61      | 3.66       | 117.94          |
| 23  | Feb 2029 | 117.94          | 1.03     | 2.63      | 3.66       | 115.31          |
| 24  | Mar 2029 | 115.31          | 1.01     | 2.65      | 3.66       | 112.66          |
| 25  | Apr 2029 | 112.66          | 0.99     | 2.68      | 3.66       | 109.98          |
| 26  | May 2029 | 109.98          | 0.96     | 2.70      | 3.66       | 107.28          |
| 27  | Jun 2029 | 107.28          | 0.94     | 2.72      | 3.66       | 104.56          |
| 28  | Jul 2029 | 104.56          | 0.91     | 2.75      | 3.66       | 101.81          |
| 29  | Aug 2029 | 101.81          | 0.89     | 2.77      | 3.66       | 99.04           |
| 30  | Sep 2029 | 99.04           | 0.87     | 2.79      | 3.66       | 96.25           |
| 31  | Oct 2029 | 96.25           | 0.84     | 2.82      | 3.66       | 93.43           |
| 32  | Nov 2029 | 93.43           | 0.82     | 2.84      | 3.66       | 90.58           |
| 33  | Dec 2029 | 90.58           | 0.79     | 2.87      | 3.66       | 87.71           |
| 34  | Jan 2030 | 87.71           | 0.77     | 2.89      | 3.66       | 84.82           |
| 35  | Feb 2030 | 84.82           | 0.74     | 2.92      | 3.66       | 81.90           |
| 36  | Mar 2030 | 81.90           | 0.72     | 2.94      | 3.66       | 78.95           |
| 37  | Apr 2030 | 78.95           | 0.69     | 2.97      | 3.66       | 75.98           |
| 38  | May 2030 | 75.98           | 0.66     | 3.00      | 3.66       | 72.99           |
| 39  | Jun 2030 | 72.99           | 0.64     | 3.02      | 3.66       | 69.96           |

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 40  | Jul 2030 | 69.96           | 0.61     | 3.05      | 3.66       | 66.91           |
| 41  | Aug 2030 | 66.91           | 0.59     | 3.08      | 3.66       | 63.84           |
| 42  | Sep 2030 | 63.84           | 0.56     | 3.10      | 3.66       | 60.74           |
| 43  | Oct 2030 | 60.74           | 0.53     | 3.13      | 3.66       | 57.61           |
| 44  | Nov 2030 | 57.61           | 0.50     | 3.16      | 3.66       | 54.45           |
| 45  | Dec 2030 | 54.45           | 0.48     | 3.19      | 3.66       | 51.26           |
| 46  | Jan 2031 | 51.26           | 0.45     | 3.21      | 3.66       | 48.05           |
| 47  | Feb 2031 | 48.05           | 0.42     | 3.24      | 3.66       | 44.81           |
| 48  | Mar 2031 | 44.81           | 0.39     | 3.27      | 3.66       | 41.54           |
| 49  | Apr 2031 | 41.54           | 0.36     | 3.30      | 3.66       | 38.24           |
| 50  | May 2031 | 38.24           | 0.33     | 3.33      | 3.66       | 34.91           |
| 51  | Jun 2031 | 34.91           | 0.31     | 3.36      | 3.66       | 31.56           |
| 52  | Jul 2031 | 31.56           | 0.28     | 3.39      | 3.66       | 28.17           |
| 53  | Aug 2031 | 28.17           | 0.25     | 3.42      | 3.66       | 24.76           |
| 54  | Sep 2031 | 24.76           | 0.22     | 3.44      | 3.66       | 21.31           |
| 55  | Oct 2031 | 21.31           | 0.19     | 3.48      | 3.66       | 17.84           |
| 56  | Nov 2031 | 17.84           | 0.16     | 3.51      | 3.66       | 14.33           |
| 57  | Dec 2031 | 14.33           | 0.13     | 3.54      | 3.66       | 10.80           |
| 58  | Jan 2032 | 10.80           | 0.09     | 3.57      | 3.66       | 7.23            |
| 59  | Feb 2032 | 7.23            | 0.06     | 3.60      | 3.66       | 3.63            |
| 60  | Mar 2032 | 3.63            | 0.03     | 3.63      | 3.66       | –               |