## PROJECT REPORT

OF

## AUDIO VIDEO AND MAGNETIC DVD

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Audio Video and Magnetic DVD Production Unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.
[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]


| 1 Name of Proprietor/Director | XXXXXXXX |
| :---: | :---: |
| 2 Firm Name | XXXXXXXX |
| 3 Registered Address | XXXXXXXX |
| 4 Nature of Activity | XXXXXXXX |
| 5 Category of Applicant | XXXXXXXX |
| 6 Location of Unit | XXXXXXXX |
| 7 Cost of Project | 19.72 Rs. In Lakhs |
| 8 Means of Finance |  |
| i) Own Contribution | 1.97 Rs. In Lakhs |
| ii) Term Loan | 15.75 Rs. In Lakhs |
| iii) Working Capital | 2.00 Rs. In Lakhs |
| 9 Debt Service Coverage Ratio | 2.23 |
| 10 Break Even Point | 0.58 |
| 11 Power Requiremnet | 15 KW |
| 12 Employment | 9 Persons |
| 13 Major Raw Materials | Aluminium metal, Polycarbonate and Glass |
| 14 Details of Cost of Project \& Means of Finance |  |

Cost of Project

| Particulars | Amount in Lacs |
| :--- | ---: |
| Land | Owned/Leased |
| Building \& Civil Work | Owned/Leased |
| Plant \& Machinery | 16.50 |
| Other Misc Assets | 1.00 |
| Working Capital Requiremen | 2.22 |
| Total | $\mathbf{1 9 . 7 2}$ |

Means of Finance

| Particulars | Amount in Lacs |
| :--- | ---: |
| Own Contribution | 1.97 |
| Term Loan | 15.75 |
| Working capital Loan | 2.00 |
| Total | $\mathbf{1 9 . 7 2}$ |

## 1. INTRODUCTION



Digital versatile disc (commonly abbreviated as DVD) is a digital format for delivering highfidelity content on a DVD. DVD uses most of the storage on the disc for high-quality data. The first discs entered the marketplace in 2000. DVD was in a format war with CD, and along with consumers' tastes tending towards downloadable music, these factors meant that neither highquality disc achieved considerable market penetration. DVD has been described as "extinct". Magnetic tape is a medium for magnetic recording made of a thin magnetizable coating on a long, narrow strip of plastic film. It was developed in Germany, based on magnetic wire recording. Devices that record and play back audio and video using magnetic tape are tape recorders and video tape recorders. A device that stores computer data on magnetic tape is a tape drive (tape unit, streamer). Magnetic tape revolutionized broadcast and recording. When all radio was live, it allowed programming to be recorded. At a time when gramophone records were recorded in one take, it allowed recordings to be made in multiple parts, which were then mixed and edited with tolerable loss in quality. It is a key technology in early computer development, allowing unparalleled amounts of data to be mechanically created, stored for long periods, and to be rapidly accessed.

## 2. PRODUCT DESCRIPTION

### 2.1 PRODUCT USES

DVD uses most of the storage on the disc for high-quality data.

### 2.2 PRODUCT RAW MATERIAL

- Aluminum metal is used for the housing as well as a hard plastic. The base material of the disks is plastic. They are additionally coated with a silver-colored layer and a thin gold layer. The surface of the disk is further coated with a hard layer of lacquer to protect it.
- Polycarbonate: DVD actually made of three layers. Most of a DVD is made from a tough, brittle plastic called polycarbonate. Sandwiched in the middle there is a thin layer of aluminum. Finally, on top of the aluminum, is a protective layer of plastic and lacquer.

- Glass: Glass is used as a substrate to hold the DVD master image while it is created and processed; hence the name. Glass substrates, noticeably larger than a DVD, are round plates of glass approximately 240 mm in diameter and 6 mm thick.


### 2.3 MANUFACTURING PROCESS

This process can be broken down into the following steps-

- Raw material procurement
- Production Process


## $\checkmark$ Raw Material Procurement

The raw materials are checked strictly as per established quality standards and requirements. Individual supplier assessment and supplier rating are done depending upon the rejection levels
at the incoming quality control stage. Sorting of raw material will be done as per material type or specifications. The material will be stored in; dust-free, neat, and clean environment.

## $\checkmark$ Production Process

- Pre-Mastering: It involves creation of a glass master that is placed onto a stamper which is then injected into a mould (shape of a disc) made from polycarbonate substrates. Data is then permanently stamped or "pressed" onto the CD or DVD and the end result is a fully manufactured disc that is playable across multiple platforms.
- Glass Mastering: laminate is slit to the desired size it is ready for printing. Artworks provided by customers are processed using sophisticated technology to enable accuracy with the printing of colors and other details on the laminate. Can use the laminate printing machine, Flexi, and Letter Press technology for printing. When the printing process is completed, different colors are merged to give the desired design.
- Replicating: Replicating is the process of creating a glass master from your audio and then manufacturing or molding each disc. This is the process used when you purchase a commercially released DVD. Compact disc manufacturing is the process by which commercial DVD are replicated in mass quantities using a master version created from a source recording.
- UV Lacquering: Ultraviolet cured lacquering can be applied over ink printed on paper and dried by exposure to UV radiation.
- UV Curing: UV-cured coatings provide a number of benefits to plastic part manufacturers, including improved performance, enhanced appearance and various process advantages. Atmospheric plasma provides an especially effective means of enhancing the adhesion of UV cure coatings to a broad range of plastic materials


## 3. PROJECT COMPONENTS

### 3.1 Land \& Building

The land required for this manufacturing unit will be approx. around 2000 to 2500 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of
project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs. 15,000 to Rs.20,000 per month.

### 3.2 Plant \& Machinery

Machines-

## $>$ DVD Pressing Machine:

Laminate printing machines are used for customized printing on tubes. These machines are capable of offering exciting effects that cannot be possible with other printing methods.


## > DVD metallization processing:

To form caps for tubes, a hydraulic-horizontal injection molding machine is used. These are being made from plastic granules. Firstly, granules are fed via a hopper into a heated barrel. Where the plastic will be melted at the set temperature. The melted plastic is then injected through a nozzle into a mold cavity where it cools and hardens to the configuration of the cavity and the formed plastic parts will be ejected out. A vertical injection molding machine can be used for shoulder fixing.

## > U V Lacquering Machine:

This machine is used for the capping process. Caps will be automatically fixed with the tube.


## - DVD Printing Machine

This machine is used for tube sealing with an aluminium foil seal.


## 4 LICENSE \& APPROVALS

Basic registration required in this project:

- Company registration
- GST registration
- Trade license
- Factory license.
- MSME Udyam registration
- BIS certification
- NOC from the Pollution Department

| PROJECTED BALANCE SHEET |  |  |  |  | (in Lacs) |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Liabilities |  |  |  |  |  |
| Capital |  | 2.34 | 3.97 | 5.99 | 8.58 |
| Opening balance | 1.97 |  |  |  |  |
| Add:- Own Capital | 2.36 | 4.13 | 6.02 | 8.09 | 10.56 |
| Add:- Retained Profit | 2.00 | 2.50 | 4.00 | 5.50 | 7.00 |
| Less:- Drawings |  |  |  |  |  |
|  | $\mathbf{2 . 3 4}$ | $\mathbf{3 . 9 7}$ | $\mathbf{5 . 9 9}$ | $\mathbf{8 . 5 8}$ | $\mathbf{1 2 . 1 4}$ |
| Closing Balance | 14.00 | 10.50 | 7.00 | 3.50 | - |
| Term Loan | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Working Capital Limit | 0.44 | 0.50 | 0.57 | 0.64 | 0.72 |
| Sundry Creditors | 1.00 | 1.20 | 1.44 | 0.80 | 0.96 |
| Provisions \& Other Liability | $\mathbf{1 9 . 7 8}$ | $\mathbf{1 8 . 1 7}$ | $\mathbf{1 7 . 0 0}$ | $\mathbf{1 5 . 5 2}$ | $\mathbf{1 5 . 8 2}$ |
| TOTAL: |  |  |  |  |  |
| Assets | 17.50 | 17.50 | 17.50 | 17.50 | 17.50 |
| Fixed Assets ( Gross) | 2.63 | 4.86 | 6.75 | 8.36 | 9.74 |
| Gross Dep. | $\mathbf{1 4 . 8 8}$ | $\mathbf{1 2 . 6 4}$ | $\mathbf{1 0 . 7 5}$ | $\mathbf{9 . 1 4}$ | $\mathbf{7 . 7 6}$ |
| Net Fixed Assets |  |  |  |  |  |
| Current Assets |  |  |  |  |  |
| Sundry Debtors | 1.44 | 1.66 | 1.87 | 2.09 | 2.32 |
| Stock in Hand | 1.40 | 1.58 | 1.76 | 1.96 | 2.18 |
| Cash and Bank | 1.07 | 1.79 | 1.12 | 0.58 | 1.56 |
| Loans \& Advances /Other Current Assets | 1.00 | 0.50 | 1.50 | 1.75 | 2.00 |
| TOTAL : | $\mathbf{1 9 . 7 8}$ | $\mathbf{1 8 . 1 7}$ | $\mathbf{1 7 . 0 0}$ | $\mathbf{1 5 . 5 2}$ | $\mathbf{1 5 . 8 2}$ |


| PROJECTED PROFITABILITY STATEMENT |  |  |  | (in Lacs) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Capacity Utilisation \% SALES | 70\% | 75\% | 80\% | 85\% | 90\% |
| Gross Sale <br> AUDIO VIDEO AND MAGNETIC DVD | 43.07 | 49.87 | 56.08 | 62.64 | 69.57 |
| Total | 43.07 | 49.87 | 56.08 | 62.64 | 69.57 |
| COST OF SALES |  |  |  |  |  |
| Raw Material Consumed | 18.90 | 21.60 | 24.48 | 27.54 | 30.78 |
| Electricity Expenses | 2.02 | 2.59 | 2.76 | 2.94 | 3.11 |
| Depreciation | 2.63 | 2.23 | 1.90 | 1.61 | 1.37 |
| Wages \& labour | 7.20 | 7.92 | 8.71 | 9.58 | 10.54 |
| Repair \& maintenance | 0.86 | 1.00 | 1.12 | 1.25 | 1.39 |
| Packaging | 1.29 | 1.50 | 1.68 | 1.88 | 2.09 |
| Cost of Production | 32.89 | 36.84 | 40.66 | 44.81 | 49.28 |
| Add: Opening Stock | - | 0.77 | 0.86 | 0.95 | 1.05 |
| Less: Closing Stock | 0.77 | 0.86 | 0.95 | 1.05 | 1.15 |
| Cost of Sales | 32.13 | 36.74 | 40.57 | 44.71 | 49.18 |
| GROSS PROFIT | 10.94 | 13.13 | 15.51 | 17.94 | 20.39 |
|  | 25.41\% | 26.32\% | 27.66\% | 28.63\% | 29.31\% |
| Salary to Staff | 3.12 | 3.28 | 3.44 | 3.61 | 3.79 |
| Interest on Term Loan | 1.55 | 1.36 | 0.98 | 0.59 | 0.21 |
| Interest on working Capital | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Rent | 2.40 | 2.64 | 2.90 | 3.19 | 3.51 |
| Selling \& Administrative Exp. | 1.29 | 1.50 | 1.68 | 1.25 | 1.39 |
| TOTAL | 8.58 | 9.00 | 9.22 | 8.87 | 9.13 |
| NET PROFIT | 2.36 | 4.13 | 6.29 | 9.06 | 11.27 |
| Taxation | - | - | 0.27 | 0.97 | 0.71 |
| PROFIT (After Tax) | 2.36 | 4.13 | 6.02 | 8.09 | 10.56 |
|  | 5.49\% | 8.28\% | 10.73\% | 12.92\% | 15.18\% |


| PROJECTED CASH FLOW STATEMENT |  |  |  |  | (in Lacs) |
| :--- | :---: | :---: | :---: | :---: | ---: |
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| SOURCES OF FUND |  |  |  |  |  |
| Own Margin | 1.97 |  |  |  |  |
| Net Profit | 2.36 | 4.13 | 6.29 | 9.06 | 11.27 |
| Depreciation \& Exp. W/off | 2.63 | 2.23 | 1.90 | 1.61 | 1.37 |
| Increase in Cash Credit | 2.00 | - | - | - | - |
| Increase In Term Loan | 15.75 | - | - | - | - |
| Increase in Creditors | 0.44 | 0.06 | 0.07 | 0.07 | 0.08 |
| Increase in Provisions \& Oth labilities | 1.00 | 0.20 | 0.24 | - | 0.64 |
|  | - |  |  |  | 0.16 |
| TOTAL : | $\mathbf{2 6 . 1 5}$ | $\mathbf{6 . 6 3}$ | $\mathbf{8 . 4 9}$ | $\mathbf{1 0 . 1 1}$ | $\mathbf{1 2 . 8 7}$ |
| APPLICATION OF FUND |  |  |  |  |  |
| Increase in Fixed Assets | 17.50 |  |  |  |  |
| Increase in Stock | 1.40 | 0.18 | 0.19 | 0.20 | 0.21 |
| Increase in Debtors | 1.44 | 0.23 | 0.21 | 0.22 | 0.23 |
| Repayment of Term Loan | 1.75 | 3.50 | 3.50 | 3.50 | 3.50 |
| Loans \& Advances /Other Current Assets | 1.00 | - | 0.50 | 1.00 | 0.25 |
| Drawings | 2.00 | 2.50 | 4.00 | 5.50 | 0.25 |


| CALCULATION OF D.S.C.R |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|  |  |  |  |  |  |
|  | 4.99 | 6.36 | 7.91 | 9.70 | 11.93 |
| CASH ACCRUALS | 1.55 | 1.36 | 0.98 | 0.59 | 0.21 |
| Interest on Term Loan | 6.54 | 7.73 | 8.89 | 10.30 | 12.14 |
| Total |  |  |  |  |  |
|  |  |  |  |  |  |
| REPAYMENT | 1.75 | 3.50 | 3.50 | 3.50 | 3.50 |
| Instalment of Term Loan | 1.55 | 1.36 | 0.98 | 0.59 | 0.21 |
| Interest on Term Loan |  |  |  |  |  |
|  | 3.30 | 4.86 | 4.48 | 4.09 | 3.71 |
| Total |  |  |  |  |  |
|  | $\mathbf{1 . 9 8}$ | $\mathbf{1 . 5 9}$ | $\mathbf{1 . 9 9}$ | $\mathbf{2 . 5 2}$ | $\mathbf{3 . 2 7}$ |
| DEBT SERVICE COVERAGE RATIO |  |  |  | $\mathbf{2 . 2 3}$ |  |
| AVERAGE D.S.C.R. |  |  |  |  |  |


| REPAYMENT SCHEDULE OF TERM LOAN |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Interest | 11.00\% |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Closing <br> Balance |
|  | Opening Balance |  |  |  |  |  |  |
|  | 1st month | - | 15.75 | 15.75 | - | - | 15.75 |
|  | 2nd month | 15.75 | - | 15.75 | 0.14 | - | 15.75 |
|  | 3rd month | 15.75 | - | 15.75 | 0.14 | - | 15.75 |
|  | 4th month | 15.75 | - | 15.75 | 0.14 |  | 15.75 |
|  | 5th month | 15.75 | - | 15.75 | 0.14 |  | 15.75 |
|  | 6th month | 15.75 | - | 15.75 | 0.14 |  | 15.75 |
|  | 7th month | 15.75 | - | 15.75 | 0.14 | 0.29 | 15.46 |
|  | 8th month | 15.46 | - | 15.46 | 0.14 | 0.29 | 15.17 |
|  | 9th month | 15.17 | - | 15.17 | 0.14 | 0.29 | 14.88 |
|  | 10th month | 14.88 | - | 14.88 | 0.14 | 0.29 | 14.58 |
|  | 11th month | 14.58 | - | 14.58 | 0.13 | 0.29 | 14.29 |
|  | 12th month | 14.29 | - | 14.29 | 0.13 | 0.29 | 14.00 |
|  |  |  |  |  | 1.55 | 1.75 |  |
| 2nd | Opening Balance |  |  |  |  |  |  |
|  | 1st month | 14.00 | - | 14.00 | 0.13 | 0.29 | 13.71 |
|  | 2nd month | 13.71 | - | 13.71 | 0.13 | 0.29 | 13.42 |
|  | 3rd month | 13.42 | - | 13.42 | 0.12 | 0.29 | 13.13 |
|  | 4th month | 13.13 | - | 13.13 | 0.12 | 0.29 | 12.83 |
|  | 5th month | 12.83 | - | 12.83 | 0.12 | 0.29 | 12.54 |
|  | 6th month | 12.54 | - | 12.54 | 0.11 | 0.29 | 12.25 |
|  | 7th month | 12.25 | - | 12.25 | 0.11 | 0.29 | 11.96 |
|  | 8th month | 11.96 | - | 11.96 | 0.11 | 0.29 | 11.67 |
|  | 9th month | 11.67 | - | 11.67 | 0.11 | 0.29 | 11.38 |
|  | 10th month | 11.38 | - | 11.38 | 0.10 | 0.29 | 11.08 |
|  | 11th month | 11.08 | - | 11.08 | 0.10 | 0.29 | 10.79 |
|  | 12th month | 10.79 | - | 10.79 | 0.10 | 0.29 | 10.50 |
|  |  |  |  |  | 1.36 | 3.50 |  |
| 3rd | Opening Balance |  |  |  |  |  |  |
|  | 1st month | 10.50 | - | 10.50 | 0.10 | 0.29 | 10.21 |
|  | 2nd month | 10.21 | - | 10.21 | 0.09 | 0.29 | 9.92 |
|  | 3rd month | 9.92 | - | 9.92 | 0.09 | 0.29 | 9.63 |
|  | 4th month | 9.63 | - | 9.63 | 0.09 | 0.29 | 9.33 |
|  | 5th month | 9.33 | - | 9.33 | 0.09 | 0.29 | 9.04 |
|  | 6th month | 9.04 | - | 9.04 | 0.08 | 0.29 | 8.75 |
|  | 7th month | 8.75 | - | 8.75 | 0.08 | 0.29 | 8.46 |
|  | 8th month | 8.46 | - | 8.46 | 0.08 | 0.29 | 8.17 |
|  | 9th month | 8.17 | - | 8.17 | 0.07 | 0.29 | 7.88 |
|  | 10th month | 7.88 | - | 7.88 | 0.07 | 0.29 | 7.58 |
|  | 11th month | 7.58 | - | 7.58 | 0.07 | 0.29 | 7.29 |
|  | 12th month | 7.29 | - | 7.29 | 0.07 | 0.29 | 7.00 |
|  |  |  |  |  | 0.98 | 3.50 |  |


| 4th Opening Balance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 st month | 7.00 | - | 7.00 | 0.06 | 0.29 | 6.71 |
| 2nd month | 6.71 | - | 6.71 | 0.06 | 0.29 | 6.42 |
| 3rd month | 6.42 | - | 6.42 | 0.06 | 0.29 | 6.13 |
| 4th month | 6.13 | - | 6.13 | 0.06 | 0.29 | 5.83 |
| 5th month | 5.83 | - | 5.83 | 0.05 | 0.29 | 5.54 |
| 6th month | 5.54 | - | 5.54 | 0.05 | 0.29 | 5.25 |
| 7th month | 5.25 | - | 5.25 | 0.05 | 0.29 | 4.96 |
| 8th month | 4.96 | - | 4.96 | 0.05 | 0.29 | 4.67 |
| 9 th month | 4.67 | - | 4.67 | 0.04 | 0.29 | 4.38 |
| 10th month | 4.38 | - | 4.38 | 0.04 | 0.29 | 4.08 |
| 11th month | 4.08 | - | 4.08 | 0.04 | 0.29 | 3.79 |
| 12th month | 3.79 | - | 3.79 | 0.03 | 0.29 | 3.50 |
|  |  |  |  | 0.59 | 3.50 |  |
| 5th Opening Balance |  |  |  |  |  |  |
| 1 st month | 3.50 | - | 3.50 | 0.03 | 0.29 | 3.21 |
| 2nd month | 3.21 | - | 3.21 | 0.03 | 0.29 | 2.92 |
| 3 rd month | 2.92 | - | 2.92 | 0.03 | 0.29 | 2.63 |
| 4th month | 2.63 | - | 2.63 | 0.02 | 0.29 | 2.33 |
| 5th month | 2.33 | - | 2.33 | 0.02 | 0.29 | 2.04 |
| 6th month | 2.04 | - | 2.04 | 0.02 | 0.29 | 1.75 |
| 7th month | 1.75 | - | 1.75 | 0.02 | 0.29 | 1.46 |
| 8th month | 1.46 | - | 1.46 | 0.01 | 0.29 | 1.17 |
| 9th month | 1.17 | - | 1.17 | 0.01 | 0.29 | 0.88 |
| 10th month | 0.88 | - | 0.88 | 0.01 | 0.29 | 0.58 |
| 11 th month | 0.58 | - | 0.58 | 0.01 | 0.29 | 0.29 |
| 12th month | 0.29 | - | 0.29 | 0.00 | 0.29 | - |
|  |  |  |  | 0.21 | 3.50 |  |
| DOOR TO DOOR | 60 | MONTHS |  |  |  |  |
| MORATORIUM PERIOD | 6 | MONTHS |  |  |  |  |
| REPAYMENT PERIOD | 54 | MONTHS |  |  |  |  |

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