



FOREST INDUSTRIES (TRAVANCORE) LTD

**REVISED MODIFIED REPORT OF MASTER BUSINESS
PLAN**

AUGUST 2021

INTRODUCTION

Forest Industries (Travancore) Limited (FIT) is situated at Thaikkattukara near Aluva, which is 15km North of Kochi and 2km South of Aluva by the side of National Highway 47. The initial authorized capital was Rs.50 Lakhs and the intention of establishing the industry was to exploit and to sell timber and other forest products from Malayattur Forest Division and elsewhere in Travancore. FIT became a Government Company in 1960. The major activities include manufacture of furniture and joiners, interior decoration and panelling, chemical treatment of wood. The Unit was originally the agency for FACT for producing wood from Kerala Forest Department. Since 1962, FACT changed their process and therefore the FACT related operations discontinued from 1963.

From then onwards FIT's main activity is wooden furniture manufacturing to meet the needs of Government of Kerala and Commercial sectors. FIT is the only Government owned company in Kerala solely engaged in manufacture of wooden furniture and joineries. Its main strength is half a century's reputation of maintaining consistently superior quality products both in durability and finish. FIT's core strength is 75 years of reputation of maintaining consistently superior timber in its products which is available from the Kerala forest. All Government Departments / Public Sector Undertakings / Local Self-government Institutions / Autonomous bodies etc. can purchase wooden furniture directly from M/s Forest Industries (Travancore) Limited, Aluva as per their requirements without following tender formalities subject to the condition that the prices of items purchased does not exceed the selling price fixed by the

government. Government has fixed selling prices of Teakwood furniture, Anjili wood furniture and hard wood furniture.

The company has now 120 employees. The company has an average annual production of 20,000 numbers of various types of furniture and joineries and the average annual sales turnover is Rs.15cr.

The performance of the company for the last five years is given below:

ITEMS	2016-17	2017-18	2018-19	2019-20	2020-21
TURNOVER (LAKHS)	3493	2154	1765	1086	660
In-house turn over	395	492*	575*	532*	244*
PRODUCTION(CUB M)	343.21	438.65	444.35	465.35	312.92
CAPACITY UTILIZATION	27.45%	35.09%	35.55%	37.23%	25%
PBDIT (LAKHS)	-175	-99	99	98	-380
PBT (LAKHS)	-320	-241	1.82	44	-460

The following furniture products made of Teak wood, Anjili wood and hard wood are manufactured by the Company.

- Almirahs with compartments, paneled shutter, lock & key of different sizes
- Bench frame of varying sizes
- Arm chair and armless chairs
- Executive chair
- Single cot
- Computer tables of varying sizes

- Double draw tables.
- Junior officers table, typist table, plain table , examination table
- Dispensary Tables and racks
- Stools, trays, footrests of varying sizes
- Notice boards

The existing manufacturing facility in FIT is having machineries to manufacture 2.5 M³/8hrs/day of wood. This facility is proposed to be expanded by installing additional machinery which will enhance the capacity to manufacture 5 M³/8hrs/day of furniture. Presently household and office furniture products made of Teak wood, Anjili wood and hard wood are manufactured by the Company. Conventional method is presently adopted by the Company is not adequate to sustain the market and profitability. It is necessary to add new and more advanced methods in the production process. Only by improving the designs, company could manufacture attractive modern furniture. Cost reduction could be possible by adopting new methods and by using improved designs.

The Company should take advantage of the above benefit and unless FIT facility is modernised, it would not be possible. There are several players in the field who have much better processing equipment's and facilities compared to what is available in FIT.

The Company at present is using conventional method for the manufacture of its product. It is necessary to add new and more sophisticated methods in the production process in order to sustain the market and the profitability. Only by improving the designs, company could manufacture attractive modern furniture. Cost

reduction could be possible by adopting new methods and by using improved designs.

Other issues presently faced the company in the furniture manufacture is that re-sawing cannot be done using the existing band saw machine and therefore the time and manpower requirement is more. Also, wastage of wood is more with the present machinery and consequently the production cost is more. Polishing of boards is ineffective, more operators are needed for cutting ply and wooden boards, and in the absence of hydraulic hot press, and lamination with glue takes more time which limits the number the pieces per shift. Since only one band saw machine is presently in operation, the manufacturing operation will have to be stopped when this band saw machine is taken for maintenance.

SWOT Analysis of the facility

Strength

- 75 years of experience in the activity of own manufacturing of furniture unit.
- Close to the National Highway & Kochi Metro.
- Easy access to the Kochi International Airport.
- Adequate land availability for expansion. We have 9.7 acres of the land for further expansion of the unit.
- High quality of product.
- Priority to Government purchase.
- Experienced Human Resource available.
- In house technical expertise.

- Assured supply of good quality raw materials from Kerala forests. Its main strength is 75 years of reputation of maintaining consistently superior timber in its products. .

Weakness

- High cost of raw materials. As a result our production cost will be increased.
- Low remuneration of employees. As a result morality, motivation and productivity of the employees will be affected.
- Absence of ISO certification. Due to the absence of ISO certificate it will affect the quality and brand value.
- Lack of computerized and modern technologies. Due to the absence of the same new technology will not be implemented.
- Absence of an advanced marketing mechanism. Due to the absence of the same market share cannot can't be increased
- No branded product. Due to the lack of branding we will not be able to compete with the competitors.
- Designs needs to be updated. Only by improving the designs, company could manufacture attractive modern furniture. Cost reduction could be possible by adopting new methods and by using improved designs.

Opportunities

- FIT has already undertaken prestigious projects all over Kerala and part of diversification it is now in the field of interior decorations, workstations etc.

- Scope of production of finger joint boards, compressed wood board. As a result by we may recycle and reuse to new products.
- Growing demand for wooden furniture.
- Customized products. We will be mainly focused on customized products
- Increase in interest of customers in replacing old furniture's with new models
- FIT is specialized in excellent quality wood products manufactured from superior quality timber by highly skilled employees.
- FIT has developed a full package of front office for local bodies based on the parameters specified by KILA.
- Government sector itself provides a good market in Kerala and other State/Central Government Facilitated distribution system in Public sector.

Threats.

- Dependence on government sector limits the opportunities.
- Reducing availability of anjili and teak.
- High competition from private organizations
- Increase in demand for low cost steel, plastic and other types of furniture in the market
- Rise in import of furniture
- Want of product design development limits scope of operations to engage in new high value products that could offer better margins and improve profitability.

SHORT TERM PLAN- (2022 to 2023)

1- INSTALLATION OF HORIZONTAL BAND SAW MACHINES

SPECIFICATION

1. Horizontal Wood Cutting Band Saw Machine with High Quality Cast Iron Wheel Grade C40, Size 42” OD and Rim width 4” x 1¼” Thickness Duly Balanced and suitable Shaft with C45 Grade and sufficient Taper Roller Bearings.
2. Square or Round Pillars, Guides, Stoppers etc. with mounting foot and Bolts for max log Cutting Height 120Cm above clamp level. Proper safety guard to be provided.
3. Main Motor Capacity 25HP, 3Phase,50Hz,1440RPM and Driven by VFD for change the Blade Speed with a steady Torque according to the Wood property from 550 RPM to 750RPM max. Motor shall be of Siemens/Bharath Bijlee/ABB/Kirloskar. VFD shall be of Siemens/L&T/ABB. Digital Ampere meter and RPM Meter shall be provided along with other general Measuring Meters.
4. Blade height adjustment by Auto and Manual Mode with PLC and HMI 7” size.
Round Log Dia. max 120cm. PLC and HMI and other accessories shall be of ABB/Siemens/Delta/ Schneider make.
5. Trolley Size 4’ x 18’ Long with ISMC 200.Six no. of Axles with 10” dia. C40 Castor Wheels and suitable Roller Bearings as per CMTI

Standard. Six sets of Manual Clamping Vices and One set of removable Handle shall be provided. The Log movement for Sawing shall be with Semi Auto Mode through 3HP Geared Motor and VFD. The speed to be set as per log properties while sawing without changing Torque. Motor shall be of Siemens/Bharath Bijlee/ABB/Kirloskar. VFD shall be of Siemens/L&T/ABB. Digital Ampere meter and RPM Meter shall be provided along with other general Measuring Meters.

6. Suitable Steel Rail of Two nos. Each min.6” Height x 40 Feet long duly fitted on sufficient levelled concrete and planed Thambakam Wood Planks Bed with proper nos. of support. Foundation Bolts and other Mounting Fasteners shall be off with 8.8 Grade.
7. Control Panel / Operator console shall be with sufficient space and easy handling switches, enough Pilot Lamps, Alarm lamps and other safety measures if any.
8. Motorised Lubricating system to be provided with the Machine.
9. Blade Cooling and Lubrication systems to be provided with Tank & level indication.

OUTPUT CAPACITY: The existing sawing facility in FIT is having old damaged Band saw machine for sawing timber **500 m³**/year of wood. This facility is proposed to be expanded by installing

additional Horizontal Band saw machine which will enhance the capacity of sawing timber **1500 m³**/year.

IMPACT IN TURNOVER: It may be noted that after installation of the Horizontal Band saw, the annual capacity of the sawing of timber will be increased and the sales turnover from the manufacturing goods is also accordingly increased. 14 Cores/year

SPACE SUGGESTED FOR ITS INSTALLATION: FIT has enough space in the shop to install the new facility and therefore no new space or additional requirement of land arises. The new Band Saw machine which is the biggest and require maximum space will be located in place of old damaged Band Saw Machine.

AVAILABILITY OF SKILLED LABOUR: FIT is specialized in excellent quality wood products manufactured from superior quality timber by highly skilled employees.

SOURCE OF THE PRICE OF THE MACHINERIES: Govt. grant/
Bank Loan

TOTAL PROJECT COST: 35 LAKHS

2. FINGER JOINT - INSTALLATION OF CLAMP BOARD & SEMI AUTO CUT OFF MACHINE

1 SEMI AUTO CUT OFF MACHINE

Operation by	- Pedal switch
Timber width	- 200 mm maximum
Timber thickness	- 20-60 mm
Cutting blade	- 400 mm
Cutting speed	- 2800 RPM
Timber length	- 120 mm minimum
Working Height	- 800-900 mm adjustable
Cutting operation	- Top clamping upward cut
Feeding & collecting-	- 500 mm x 2000 mm Maximum
Roller Table	- Both side with gauge
Power capacity of blade molar	- 3 HP/415 V/50 Hz 3 phase
Pneumatic pressure	- 6 Bar
Weight	- 200kg approx.

2 SECTION ROTARY CLAMP CARRIERS

- (a) Each section 8 clamps
- (b) Minimum clamping depth 4 feet x 8 feet width
- (c) Sections are driven by motor & gear box
- (d) Pneumatically operated clamp tighter
- (e) Panel flattener by pneumatic cylinder 2 No's shall be provided.
- (f) Foot s/w for convenient operations
- (g) Maximum working thickness 5 inches

- (h) Main power motor 5 HP/ 3 phases
- (i) Weight 2000kgs.

OUTPUT CAPACITY:

After installation of clamp board and semi cut-off machine for finger joint machine, we can make finger joint boards of size 8x4 feet with thickness of 12 mm, 16mm, 25mm. The main advantage of this machine is to reduce wastage of wood. This will help us to increase our production and income.

IMPACT IN TURN OVER.

It may be noted that after installation of the Horizontal Band –saw, clamp board and semi cut off machine for finger joint machine, the annual capacity of the sawing of timber will be increased and the sales turnover and income also increased.

SPACE SUGGESTED FOR ITS INSTALLATION.

A new 1500sq.feet space to be built near the building of finger joint machine and finger shaper machine for the installation of clamp board and semi auto cut off machine.

AVAILABILITY OF SKILLED LABOUR

FIT is specialized in excellent quality wood products, manufactured from superior quality timber by highly skilled employees.

3 ELECTRIC WOOD DRYING KILN

The Heat treatment of wood is an environment friendly method for wood preservation. The heat treatment processes only uses steam and heat and no chemicals or agents are applied to the material during the process.

SPECIFICATION

- Capacity : 200 CFT
- Chamber Size : 8x8.50x16 Feet
- Trolley Size : 4x12 Feet
- Temperature : 60oc Maximum
- Heater Capacity : 27kw, 3 phases, 50 Hz.
- Wall Insulation Thickness- : 50mm Rock wool with aluminium
a part from Brick Wall sheet Sealing
- Oven Door Size : 6 feet width x 6.50 feet height
(Double Door with inspection door)
- Control panel : Digital with temperature humidity
display auto and Manual Mode
- No: of fan :3 No x 1HP,Axial
- No: of Deepening valves :6 No's
- Humidity Control :With Sufficient motar,Pump & Jet
or with suitable humidifier.

TOTAL PROJECT COST: 25 LAKHS

3.SHOWROOM RENOVATION

FIT's commitment towards quality, delivery schedules and after sales service has earned the confidence of the customers over the years. FIT has introduced special brands in product line. All furniture is aesthetically and ergonomically designed to meet the health requirements of the customers. FIT is specialized in excellent quality wood products manufactured from superior quality timber by highly skilled employees.

FIT have 500 sq.ft showroom situated at Thaikatukara in its own campus. The Company uses only high quality wood for its products and hence the durability is assured. In order to further strengthen the same, a Quality Assurance Section headed by qualified and experienced Wood Technologist has been set up. It is proposed to expand the existing showroom to 1000sq ft. The same is to construct as an additional floor in the existing showroom building.

TOTAL PROJECT COST: 50 LAKHS

4.ONLINE MARKETING AND WEBSITE UPDATION

The company planned to introduce an Online marketing portal to promote the company products and services . This online marketing may leads to the growth of the industry by advertise and sell products.

TOTAL PROJECT COST: 20 LAKHS

5. PRODUCTION AND HANDY CRAFTS ITEMS IN COLLABORATION WITH KSHDC

Indian arts and crafts are in demand all over the world for their beauty, intricacy and artistic work, adding elegance to any decor. KSHDCL markets the beautiful handicrafts of Karnataka under the brand name Cauvery through outlets across the country. The high standard of craftsmanship maintained by KSHDC has made the Cauvery name synonymous with quality handicrafts. In collaboration with Karnataka State Handloom Development Corporation Ltd.(KSHDC) and FIT, we will produce traditional designed handy craft items.

TOTAL PROJECT COST: 10 LAKHS

MEDIUM TERM PLAN (2023 to 2029)

1. CONDUCTING SALES CUM EXIBITION MELA 'S

The company have planned for arranging an Exhibition cum Sale Mela in view of sales promotion . It is proposed to showcasing a variety of products developed in the field of furniture . The stalls displaying and highlighting various types of furniture and handicrafts products . This helps us to boost our sales.

TOTAL PROJECT COST: 20 LAKHS

2. WOOD TREATMENT PLANT AND CHEMICAL TREATMENT PLANT

Wood Seasoning refers to reducing the moisture content of wood prior to its use. It is the process of removing its moisture contents to an average equilibrium with the atmospheric conditions of the locality of use. Ideally, wood is dried to that equilibrium moisture content as will later (in service) be attained by the wood so that further dimensional change will be kept to a minimum.

Pre-seasoned wood is stacked inside this chamber and hot air is pumped at regulated levels. This induces an evaporation process, which draws water out of the wood. Within 10 to 15 days of seasoning, the moisture content is successfully brought down to 12 % to 15 %.

TOTAL PROJECT COST: 5 LAKHS

3.MULTIPLE RIP SAW

Single Arbor Multiple Rip Saw with Auto in feed and out feed Conveyor and short piece support device.

Maximum cutting Height -125mm

Minimum log length – 400mm

Blade Diameter – 300 to 380mm

Arbor dia – 70mm

Blade Speed – 3000 rpm

Maximum width between external blades- 350mm

Spacer rings 5, 10, 15, 25, 30, 40, 50mm – Each 05 nos.

Belt width – 400 mm

Main Motor – 30 KW

Power in Feeder – 2KW with gear box

Conveyor variable speed – 7.5 to 25 mtrs /minute

Working Table (size 790mm x 1840mm x 750mm Height) – 02 nos

With all safety measures of Electrical and mechanical.

Electrical Control Panel with Soft Starter for main motor

And 2KW VFD . Movable side covers for large Board passage.

Laser device and adjustable support on first Blade.

TOTAL PROJECT COST: 20 LAKHS

LONG TERM PLAN (2023 to 2030)

COMPRESSED WOOD / PARTICLE BOARD PRODUCTION

Compressed wood is an engineered, man-made wood product made of wood fibers, sawdust, wood particles, wood shavings, and a veneer facade. It has a wide range of common applications, most notably in furniture, cabinetry, and trim work. Its many distinct advantages over natural wood make compressed wood ideal for many applications.

TOTAL PROJECT COST: 10 LAKHS

OTHER FUTURE ACTIVITIES

1. DRINKING WATER PROJECT

As the part of diversification, FIT Management has decided to start a drinking water unit in FIT campus for reducing the scarcity of drinking water at the surroundings of Aluva and Kalamassery. The Company have proposes to setup a water treatment plant with a supply capacity of treating 1,50,000Litres of water. Water treatment plant starts with a supply of50,000 litres of water then gradually it will get increased to1,50,000Litre per day in the 5thyear.

TOTAL PROJECT COST: 1.4 cr

ELECTRIC CHARGING STATION

An electric vehicle charging station is an equipment that connects an electric vehicle (EV) to a source of electricity to recharge electric cars. The charging station for electric vehicles has a great possibility as the Company has National High way frontage and the Company owned vacant land to proceed the same. Moreover providing amenities for the commuters along with the charging station may increase revenue.

TOTAL PROJECT COST: 35 LAKHS

2. WARE HOUSING

By utilizing our vacant land, a ware house can be construct and the same may be rented for storage space for Vegetables, Fruits, and other related spices. The presence of airport and seaport is a big advantage for this new proposal

TOTAL PROJECT COST: 15 LAKHS