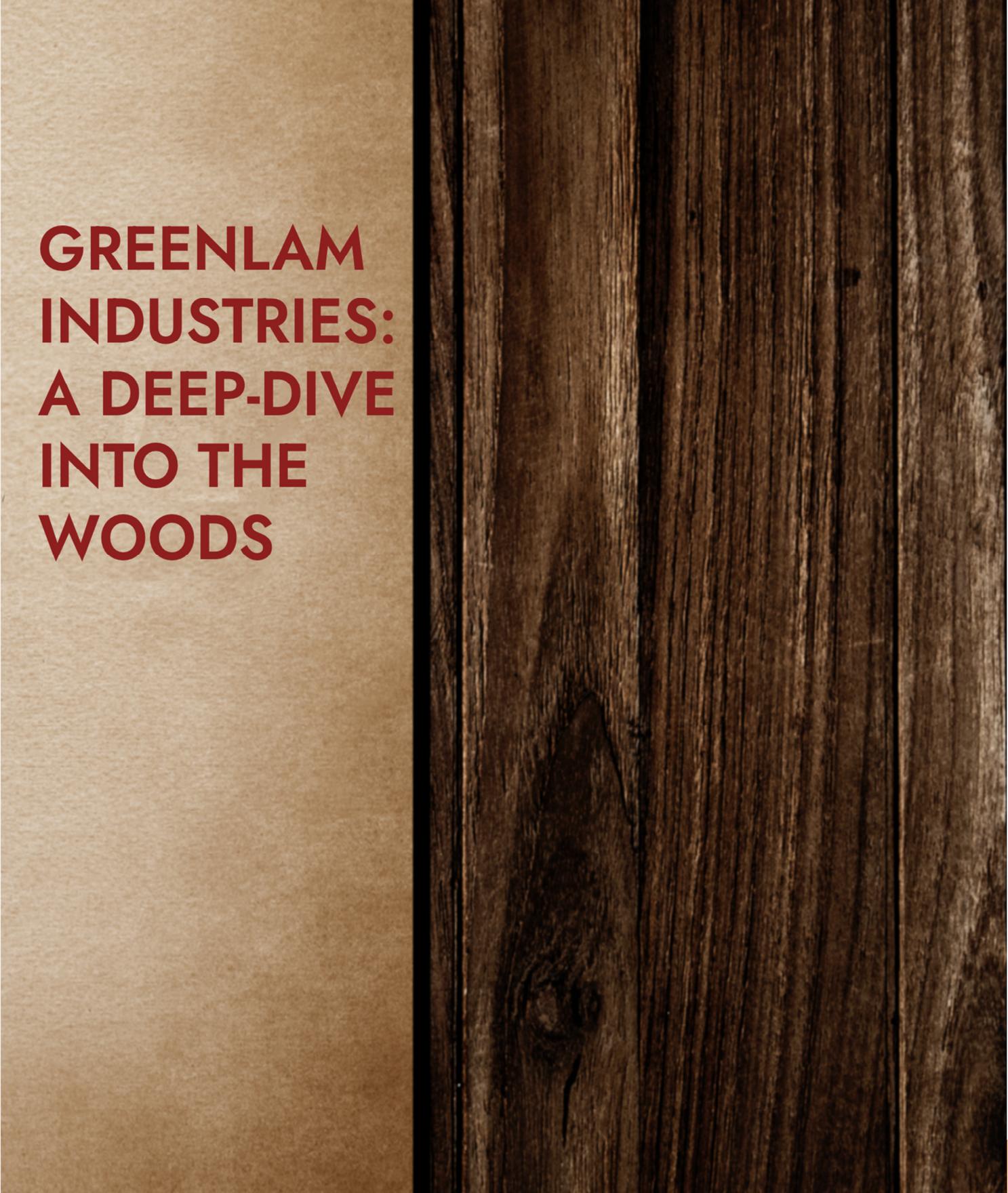


DISRUPTION SERIES

JUNE 2022

• VOL. 17



**GREENLAM
INDUSTRIES:
A DEEP-DIVE
INTO THE
WOODS**

Disruption is inevitable: We are prepared

We at Ambit are constantly trying to stay ahead of the curve by drowning out the noise and looking ahead. In keeping with our long term investment thesis, we like to stay up to date with not just the present impediments faced by your portfolio companies but also long term disruptions which can hit these companies. Hence we will regularly come out with our thoughts on disruptions in your portfolio companies/ sectors and for the **17th volume** of this series we have selected **Greenlam Industries – A Deep dive in the woods**

A disruptive technology/ innovation is one that helps create a new market and value network, and eventually goes on to disrupt an existing market and value network, displacing conventional wisdom or technology. This note takes a closer look at how Greenlam Industries and the organized wood panel space have been evolving and the probable disruptions it may face in their quest.

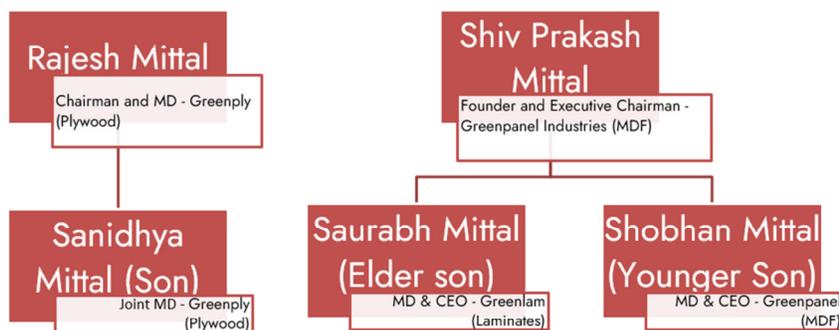
Greenlam Industries: Demerged Entity of Greenply

History, corporate and family structure

Greenply was established in 1990 by brothers Shiv Prakash Mittal and Rajesh Mittal.

- In 1993-94, Greenlam Laminates brand was created.
- In 2010, Greenply commenced production of Medium Density Fibreboard (MDF)
- In 2013, Greenply demerged its decorative business – which consisted of Laminates and allied business – into Greenlam Industries.
- In 2018, Greenply demerged its MDF and allied business in to Greenpanel.
- Post the demergers, Greenply focused primarily on Plywood, Greenpanel on MDF and Greenlam on laminates
(Refer to Exhibit: 1)

Exhibit 1: Corporate and family structure of Greenply Industries (Demerged)



Source: Ambit Asset Management, Company

Greenlam today is the largest laminates manufacturer in Asia and deals in laminates, decorative veneers, engineered wood floorings and engineered doors. The company has announced a strategic roadmap, which will help them enter particleboard and plywood space while increasing their existing laminates capacity. This will also help transition the company to capture a larger portion of the wood panel value chain.

Industry and Market Dynamics

1. Wood Panel

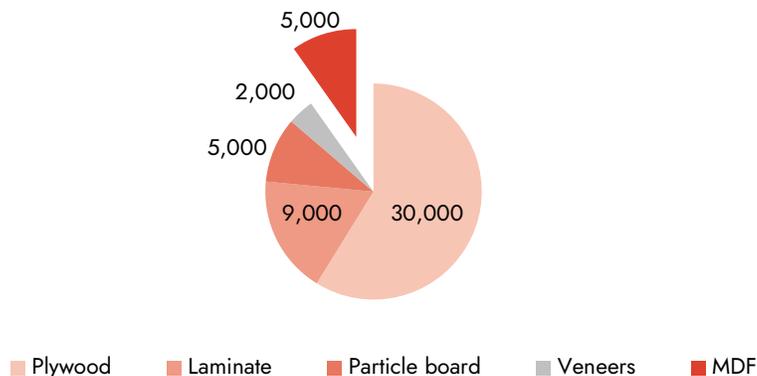
a. **Background** – The wood panel industry can be broadly divided into **(1) Plywood, (2) MDF (3) Particleboards**. In addition to these, there are laminates & veneers which are used as finishing layer for the wood panel (MDF/plywood / particle board).

b. **Market Dynamics and Size:** The domestic wood panel industry is a ~Rs51,000 crore market, dominated by plywood. The wood panel market is also largely un-organized, constituting ~80% of the total market.

Post the on-going capex, Greenlam’s addressable market will expand to ~Rs46,000 crore from Rs11,000 crore, with a potential to grow at accelerated levels led by Covid related accelerations such as WFH along with the changing preferences for multifunctional, convenient and readymade furniture (**Refer to Exhibit 3**).

Exhibit 3: Greenlam has a presence in all segments except MDF

Rs. 51,000 crore Market of wood panel Industry (Rs in crores)



Source: Ambit Asset Management, Company

c. Change in consumption pattern -

Globally, MDF and particleboards constitute almost 80% of the entire wood panel Industry whereas in India their market share is lower than 20%. However, MDF and particleboard are growing faster than the market by replacing lower end plywood due to better awareness, lower price points and increased demand for ready-made furniture.

Exhibit 4: Major players are entering adjacencies in Plywood, MDF and Particleboard

Particulars	Plywood	MDF	Particleboard	Laminates and Veneers
Greenlam	✓	×	✓	✓
Century Plyboards	✓	✓	✓	✓
Greenpanel	✓	✓	×	×
Greenply	✓	✓	×	×
Rushil Décor	×	✓	×	✓
Stylam	✓	×	×	✓

Source: Ambit Asset Management, Company. ✓ - Reflects players entering adjacencies post recent capex

Greenlam – Diving Deeper into the Woods

Greenlam is also the third largest globally and deals in laminates, decorative veneers, engineered wood floorings and engineered doors. Over the years the company has become one of the top 3 global players in laminates by undertaking the following measures –

1. **Capacity and category expansion** – Greenlam has evolved from being just a market leader in laminates and wood veneers in 2013-14 to becoming a market maker with investments in engineered wood floor and engineered doors in addition to strengthening their capacities in laminates (**Refer to Exhibit 5**).

The company has further announced a fresh capex of Rs950 crore spread across Particleboard (Rs600 crore), Plywood (Rs125 crore) and Laminates (Rs225 crore).

The particle board market is worth ~5,000 crore market with no major organized player. Greenlam is initially targeting ~10% market share in particle boards with opportunity for further scale up.

In the Rs30,000Cr Plywood segment, Greenlam is intending to gain market share from unorganized players which command ~80% of the market.

Exhibit 5: Greenlam’s capacity and category expansion

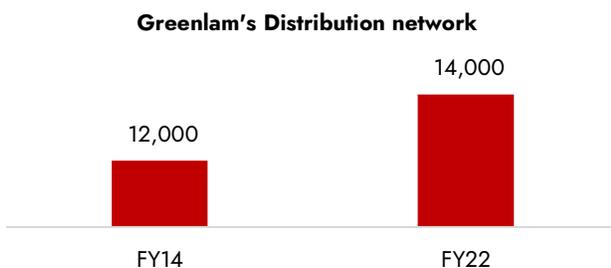
Particulars	Unit of measurement (per annum)	2013-14	2021-22	Future capacity
High Pressure Laminates	Million sheets	10.02	15.62	19.12
Decorative Veneers	Million square metres	4.2	4.2	4.2
Engineered wood floors	Million square metres	-	1	1
Engineered doors	Units	-	12,000	12,000
Plywood	Million square metres	-	-	18.9
Particle Board	Cubic metres	-	-	2,31,000

Source: Ambit Asset Management, Company

2. **Robust distribution network** – Greenlam has one of the largest distribution network in the wood panel space (**Refer to Exhibit 6**). The company operates through >14,000 distributors along with 9 large regional distribution centres, 21 branch offices and 5 warehouses. This network has only grown over the years with an addition of over 2,000 distributors since 2014. The Company’s products are also available in more than 100 countries, supported by 4 international distribution centres and 15 international offices.

Such a vast distribution network has resulted in Greenlam being able to address the customer needs faster and has aided to its journey to being the third largest laminate manufacturer in the world.

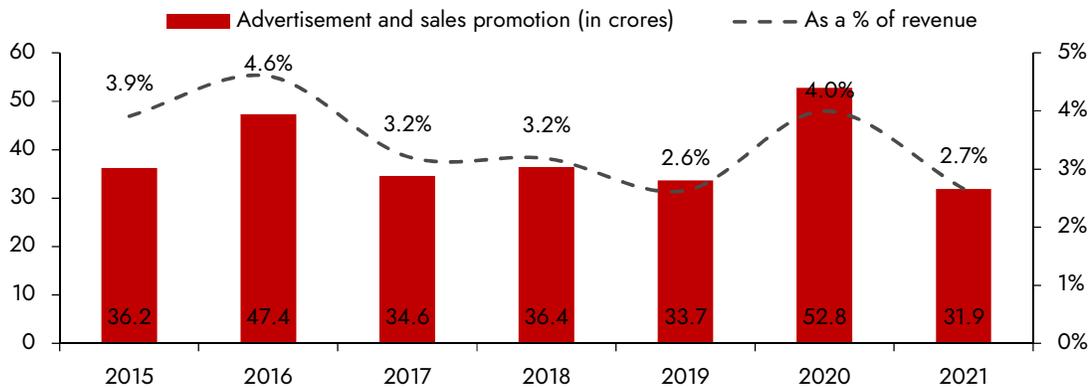
Exhibit 6: Greenlam continues to invest heavily in advertisement spends to create a niche for itself in the Industry



Source: Ambit Asset Management, Company

3. **Marketing and product penetration** – Greenlam has pioneered marketing in wood panel industry by being amongst the first few companies to advertise wood products. Since then, it has continued to spend ~3-4% of revenue towards advertisement and sales promotion which has helped increase brand awareness and brand image.

Exhibit 7: Greenlam continues to invest heavily in advertisement spends to create a niche for itself in the Industry



Source: Ambit Asset Management, Company

In addition to marketing initiatives, the company has a range of products exceeding 10,000 laminates, 100 compact laminates and 200 veneered laminates.

Apart from quotidian applications, Greenlam’s products provide several value added benefits which can be used in specialized operations such as

1. **Anti-bacterial Laminates** – These are manufactured using antimicrobial agents and are US-EPA approved, which makes it ideal for laboratories, chemistry labs, hospitals, and other spaces prone to microbial growth.
2. **Fire retardant Laminates and doors** – Greenlam provides fire retardant laminates and doors which are ideal for kitchen, school labs and hospitals (**Refer to Exhibit 8**)
3. **Electrostatic Dissipative Laminates** – This product helps in draining out static charge, and is therefore an ideal option for areas with a high-risk of electrostatic interference laboratories, hospitals and server rooms.
4. **Chemical resistant laminates** – Greenlam provides chemical resistant compact laminate – Greenlam Lab guardian which ensure complete protection against health hazards and are suitable for critical operations in operation theatres and Laboratories (**Refer to Exhibit 9**)

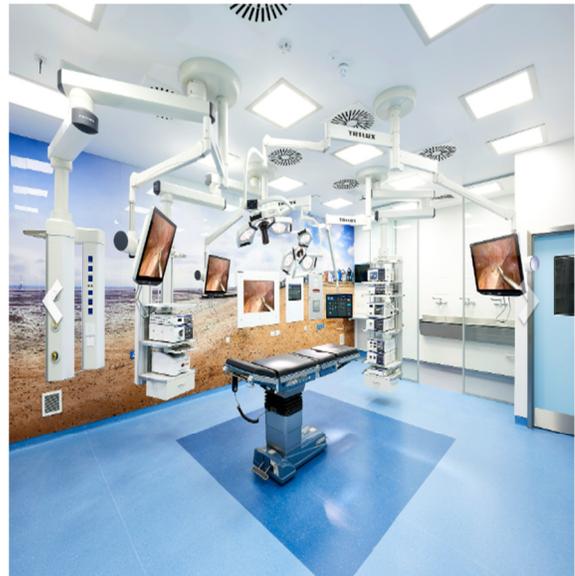
On the back of above initiatives, Greenlam has managed to create a dominant franchise in the wood panel industry.

Exhibit 8: Fire resistant laminates and doors provides utility in kitchen, school labs and hospitals



Source: Ambit Asset Management, Company

Exhibit 9: Chemical resistant laminates have increased utility in critical areas like laboratories and operation theatres.



Source: Ambit Asset Management, Company

Disruption Points –

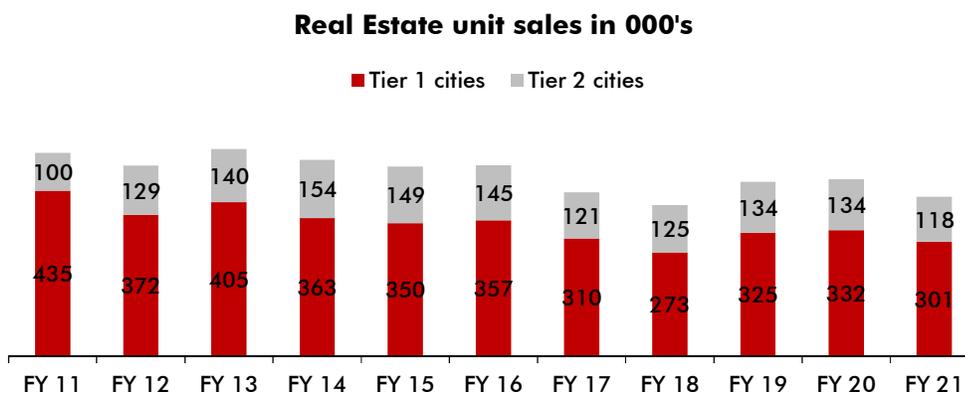
1. Challenges to Real Estate cycle – The Real Estate sector has faced several challenges from FY 2014-2021 led by demand contraction and oversupply which has resulted in inventory build-up and subsequent price erosion (**Refer to Exhibit 10**). However, the real estate cycle seems to be on the verge of an up-cycle led by -

- a) Higher liquidity and better credit access.
- b) Improving demand and better affordability due to time and price correction of real estate.
- c) Supply discipline by real estate players leading to lower launches and inventory.

In addition to the same, real estate is a cyclical sector and while wood panel industry is a proxy to the real estate cycle, Greenlam through various initiatives such as widening distribution network along with better sourcing capabilities, superior product quality and branding has been able to mitigate the cyclical nature.

With the boost in real estate, wood panel players have a favourable tailwind as wood panel is an integral part of the home improvement sector. However, any reversal in the real estate cycle may disrupt the wood panel space.

Exhibit 10: Real Estate sales from FY 14-21 have been benign



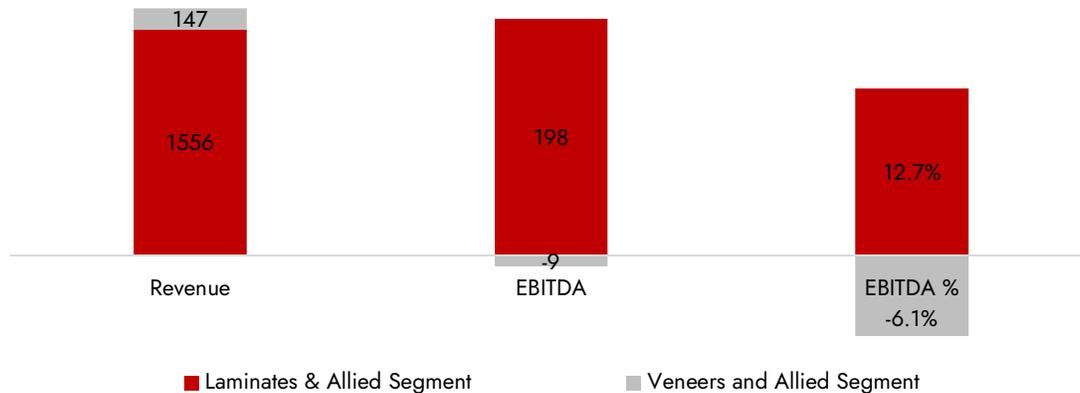
Source: Ambit Asset Management, Company

2. Inability to turn around allied businesses – While the company has done extremely well in scaling up their laminates business (~90 % of revenue), they have not been able to scale up their allied businesses such as decorative veneers and engineered wood floors and doors. Capacity utilization in 2022 for decorative veneers / engineered wood floors / engineered doors was sub-par at 26%/11%/18%.

These segments continue to be money losing ventures and the company has not been able to turn them around despite strong market potential (**Refer to Exhibit 11**). Execution by the management in terms of turning around allied businesses while scaling up adjacencies would need to be monitored. Any slip-up here could drag the company margins and profitability.

Exhibit 11: While Laminates continue to do well, Greenlam has struggled to turnaround veneers and allied segment

Greenlam's financial metrics for FY 22 by segments (Rs crore)



Source: Ambit Asset Management, Company

3. Capital allocation and cannibalization risk –

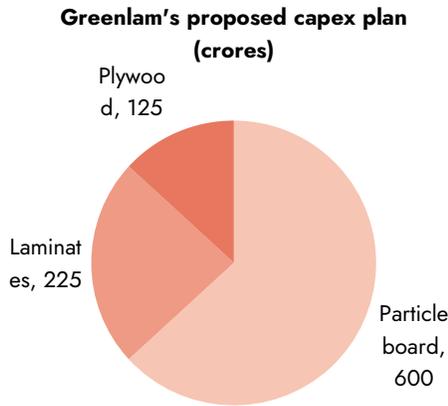
Wood panel industry, due to the inherent nature of the business, is capital intensive which raises the risk of misallocation of capital. In addition to the same, seeing buoyant recovery in real estate, major wood panel companies have announced capacity expansions with Greenlam being aggressive with a capex of ~Rs950 crores spread across particleboard, laminates and plywood.

Currently the major players are building in larger capex across faster growing categories such as Particleboard / MDF while capex in plywood and laminates is primarily to meet incremental demand along with gains from unorganized segment (**Refer to Exhibit 12, 13 and 14**).

While currently the tailwinds for the sector seems strong and most companies have identified their own focus areas for growth in wood panel space, one needs to lookout for overcapacity and cannibalization across wood panel companies and how the industry pans out on the back of solid demand outlook.

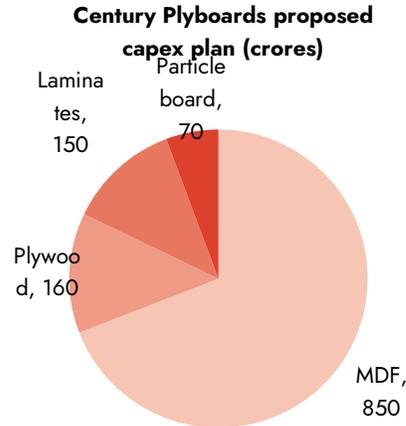
In addition to the same, companies such as Asian Paints, Astral and Pidilite have been widening their presence in their home improvement. While currently there has not been any meaningful entrant in the wood panel space, any entry by the larger players may result in a major disruption.

Exhibit 12: While Greenlam is focusing majorly on particleboards...



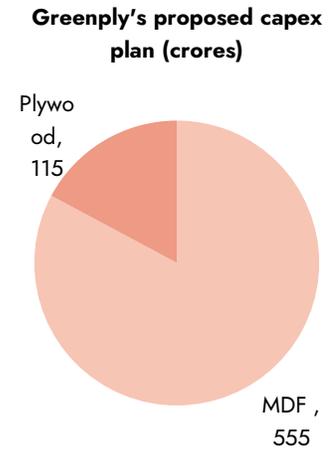
Source: Ambit Asset Management, Company

Exhibit 13: ...Century's main focus is on MDF



Source: Ambit Asset Management, Company

Exhibit 14: Greenply is also focusing primarily on MDF



Source: Ambit Asset Management, Company

4. Obsolescence of wood –

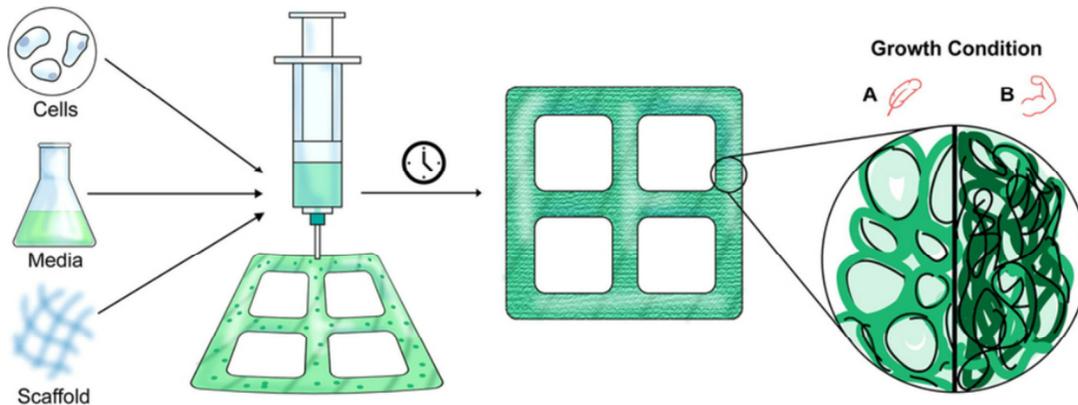
While wood has been in use for many centuries, the rapid technology development may render wood as we see today obsolete. Even though it may seem outrageous at first, we have seen multiple instances of common day items being replaced by technology; take the case of the Great Horse manure crisis of 1894.

Horse carriages were a primary mode of short distance personal transportation in the 1800's. By the end of 1800's due to rapid industrialization more and more people flocked to industrial hubs like London. More people meant more horses and more horses meant more manure which resulted in increase in diseases like typhoid. It was estimated that by middle of the 19th century, London would be covered and buried under nine feet of manure. No solution was found for this major issue until Henry Ford came up with the process of building cars at affordable prices. Horse carriages were replaced by motorised vehicles in no time.

The world today is plagued with environmental issues such as global warming, accentuated by chopping of trees which also results in deforestation and other environmental issues. Due to the same, technology has made it possible to grow wood in laboratories. The concept is similar to lab grown meat. Scientists have created structures made of plant cells that mimic wood, but without the need to chop down trees in the process. The wood-like plant tissue is grown indoors without soil or sunlight (**Refer to Exhibit 15**).

While it is currently at a very nascent stage, lab-grown wood in the future can be a big disruptor to the entire wood panel industry similar to how lab grown meat is trying to disrupt the food industry. There are other alternatives such as 3D printing as well as increased salience of plastic furniture which can impact the wood panel space.

Exhibit 15: Researchers at MIT have pioneered a tunable technique to generate wood-like plant material in a lab



Source: Ambit Asset Management, MIT

5. Environmental Concerns –

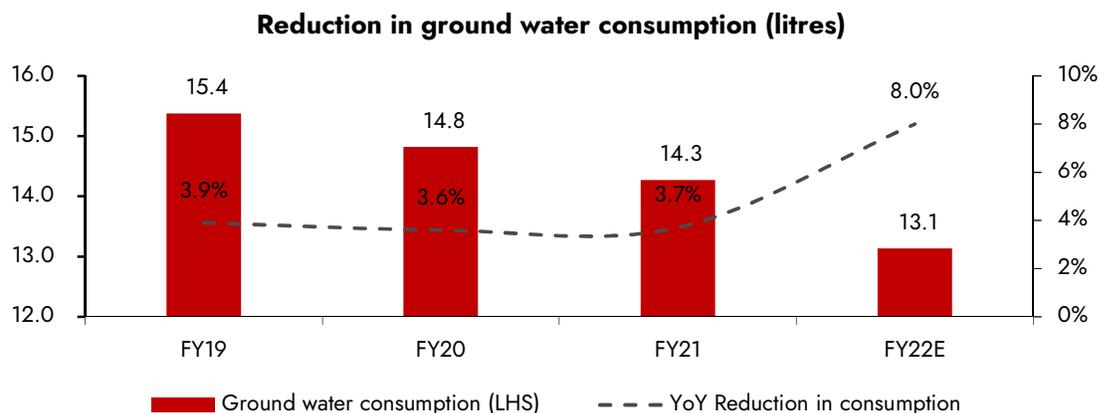
The focus on environment is now a key concern for governments and organizations alike due to global warming.

We have seen instances such as NCR air pollution issue where Commission of Air Quality Management (CAQM) ordered restriction on operation of manufacturing units in the region. The above order also impacted Greenlam’s plant in Behror which resulted in productivity loss of around 10 days in FY22.

Greenlam has intended to achieve zero waste to landfill and zero effluents discharge while moderating water consumption intensity. The company has also made investment in renewable energy and use of recycled raw material.

In addition to the same, Greenlam has successfully reduced ground water consumption by implementing a number of actions such as RO water recycling and converting all high productive presses to high pressure hot water system (Refer to Exhibit 16).

Exhibit 16: Greenlam aims to increase intensity of reduction in water consumption as part of ESG initiatives



Source: Ambit Asset Management, Company

Conclusion

Greenlam's endeavour to become an integrated wood player from primarily a laminates player is seemingly a challenging one rife with multiple probable disruptions. Despite the challenges, the company seems to have identified a solid niche in the faster growing particleboards segment on the back of changing consumer trends and tailwinds for the real estate sector. The agility of the company along with execution capabilities in the laminates segment places Greenlam favourably not only in the laminates space but also in the entire home improvement space.

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