

Skill Gap Report



FURNITURE
& FITTINGS
SKILL COUNCIL

कुशल • सक्षम • आत्मनिर्भर

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1. Introduction to the Sector

The Indian furniture and fittings industry has grown over the years. The market is estimated to be about ~90,000¹ Cr and is expected to grow at 15%² rate for the next decade.

The country's furniture market is expected to grow at a rapid pace due to changing consumer preference towards readymade branded furniture and changing lifestyles and increasing disposable income. The market is also getting a boost from the growth of the real estate especially in Tier I and Tier II cities.

At the pace with which construction projects are being undertaken across the country, there is expected huge increase in real estate sector, resulting in increase in the demand for furniture and fittings in the market. Further, the demand for the branded furniture has also increased due to the emerging upper and middle class and growth in the online e commerce market.

It is estimated that the furniture industry in India accounts for a marginal share in the Gross Domestic Product (GDP), representing about ~0.5 percent³. The segment is primarily dominated by the unorganised sector (approx. 85%) while organised sector constitutes a small portion. The major players present in the market include Godrej, BP Ergo, Supreme, Nilkamal, Featherlite, Haworth, Style Spa, Yantra, Renaissance, Millennium Lifestyles, Durian, Kian, Tangent, Furniture Concepts, Furniturewala, Zuari, Hettich, Hafele, FurnitureKraft, Jalaram Steel etc.

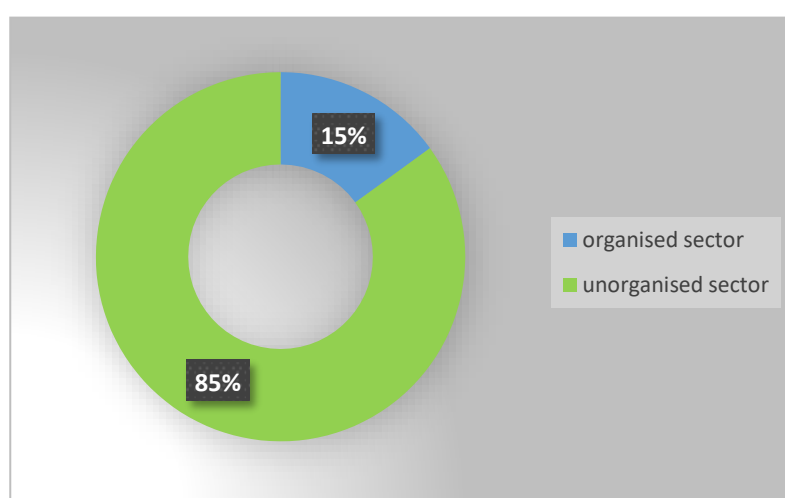


Figure 1: Distribution between sectors

Various types of raw material are used for furniture manufacturing in India. The key raw materials being wood, metal, plastic, cane and bamboo. Wood furniture has approx. 50% share, followed by metal about 25% and others⁴.

Fittings like hardware fittings, locks acts as a support to the furniture and complete the process and installation of furniture in home / personal, offices /institutions.

¹ Inputs Industry interaction

² Inputs Industry interaction

³ Furniture market based in India report, [Gyan Research and Analytics Pvt. Ltd., 2014](#)

⁴ Inputs Industry Interaction

In line with the global trend, the home furniture is the largest segment in the furniture market accounting for about 65% of sales. The office furniture accounts for about 20% followed by others mainly contract segment accounts for a share of 15%.

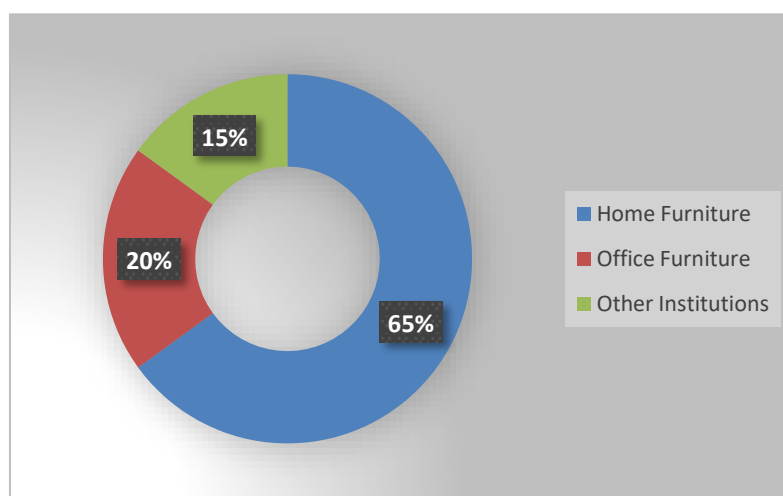


Figure 2: Consumer Segment distribution

With the growth of the overall economy, the furniture demand for home and office furniture has increased. Home furniture caters to the varied needs in the household. The kind of furniture used also varies upon the affluence and taste. The Office furniture caters to the commercial and the office space. The contract segment caters to the hotels and other institutions.

The sourcing clusters/states for workforce are states of UP, Bihar, Jharkhand, West Bengal, Orissa, MP and Maharashtra. Labour in this sector are generally school drop outs and migrate to Tier I and Tier II cities for better employment opportunities.

It is gauged from the interactions that the workforce employed in factories and small scale set ups learn on the job, from the manufacturer or through learning from experience of their own small units.

Indian Exports

The Indian government has undertaken initiatives for increasing the exports from the country. Indian government have several bilateral and multilateral trade agreement with countries of the world especially Asian and European countries like ASEAN- India free trade area, India Sri Lanka free trade agreement, India Bhutan trade agreement etc.

The major trading partner countries in all trades (including furniture) are China, USA, UAE, Germany, Indonesia, Australia, UK etc. As per comparative advantage analysis of feasibility study of India-Indonesia Comprehensive Economic Cooperation Agreement (CECA)⁵, furniture sector is among the advantage sectors of India.

⁵ http://commerce.nic.in/trade/india_indonesia_jsg_report_2009.pdf

The total exports of India in year 2015 declined by ~17%⁶ to approx. USD 264⁷ Billion while furniture industry export increased by ~25%⁸ during the same duration.

The top ten countries where India is exported furniture⁹ in the year 2014 were USA, Germany, UK followed by France, Netherlands, Australia, UAE, Canada, Belgium and Italy. USA along with UK and Germany account for 51% share of the furniture exported from India.

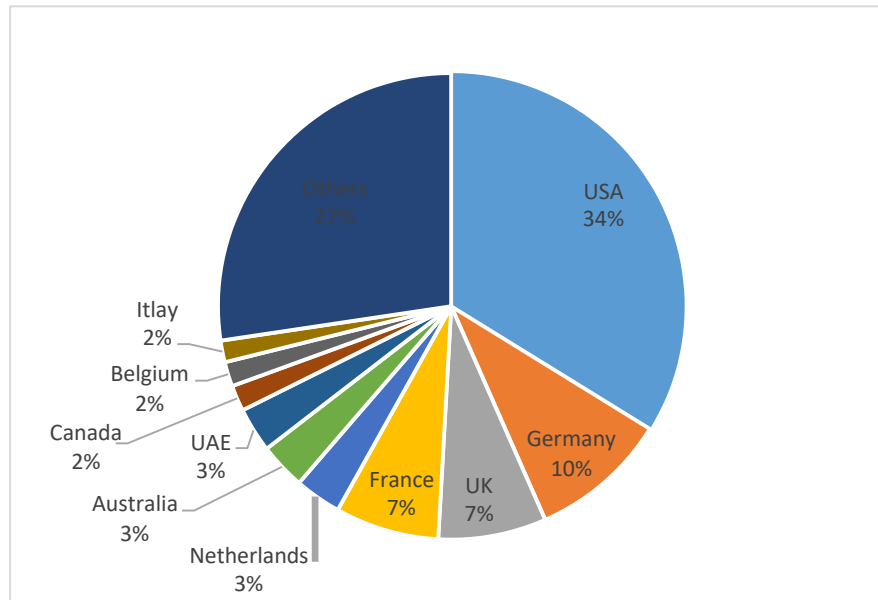


Figure 3: Country wise breakup of furniture exports

Indian Imports

India is mainly importing oil, gems precious metals, electronic equipment, machinery, organic chemicals, fertilizer, medical technical equipment, iron and steel. The top importing partner countries are China Saudi Arabia, Switzerland, US, UAE, Indonesia, South Korea, Germany etc.

The total imports of India in year 2015 declined by ~16 %¹⁰ to approx. USD 390.7¹¹ Billion while furniture industry import increased by ~32%¹² during the same duration.

The top ten countries from where India imported furniture¹³ in the year 2014 were China followed by Germany, Malaysia, Italy, United States of America , Thailand, South Korea , United Kingdom, Hong Kong and Sri Lanka.

⁶ <https://www.statista.com>

⁷ <http://wits.worldbank.org>

⁸ <http://www.worldsrichestcountries.com/>, <https://www.statista.com>

⁹ <http://www.worldsrichestcountries.com/>, furniture exports includes exports of furniture, lightings, and signs.

since this sector includes a number of sub sectors, only an indicative of possible country wise exports possible and no direct correlation possible

¹⁰ <https://www.statista.com>

¹¹ <http://wits.worldbank.org>

¹² <http://www.worldsrichestcountries.com/>, <https://www.statista.com>

¹³ <http://www.worldsrichestcountries.com/>, furniture imports includes imports of furniture, lightings, and signs.

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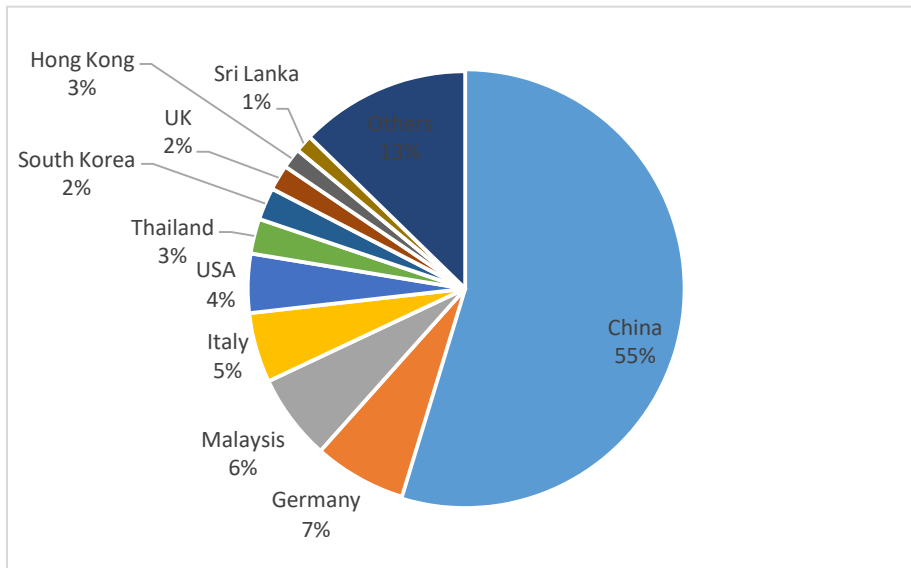
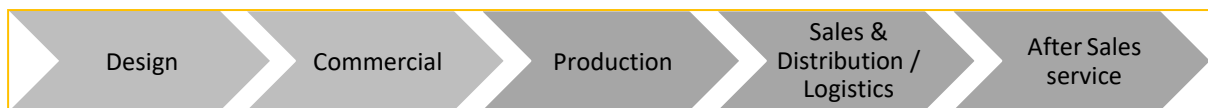


Figure 4: Country wise breakup of furniture imports

2. Furniture Industry Value Chain



The furniture Industry in India covers a complete range of activities starting from design followed by commercial, production, sales and distribution and after sales service.

The commercial phase includes the purchase of raw material for the manufacturing of the furniture. This phase is followed by the production activity. This segment involves the role of actual conversion of raw material to a finished product. This phase also involves quality testing along with packing of furniture.

The next phase is sales and distribution. Indian furniture companies operate through direct selling in the market and via distributors. It is observed that large companies generally have their own showrooms along with the distributor model. There are a large number of furniture retailers and franchise also in the country. With the change in the consumer preference for branded furniture along with preference for high-end, low maintenance, quickly installable products, the retail market is set for progress and positive growth.

Post the sales, there is an emergence of important segment of after sales service. With the focus on providing quality service to customers, a lot of players are increasing their workforce in customer support post sales by providing the required repair and maintenance services.

3. Research Methodology

The research methodology is based upon the insights received through primary and secondary research along with workshops conducted with an aim to provide a holistic picture sub sector wise.

Skill gap study for furniture and fittings sector has been done on the basis of demand side and supply side of the sector.

This study includes overview of the industry from the point of view of market size as well as percentage of manpower employed in the sector including the supply of workforce. Additionally, focus has been laid on the enablers to the furniture and fittings segment.

For understanding the skill gap in organized sector, primary and secondary research as well as formal and informal data sources is used. For unorganized sector, primary and informal data sources is considered.

4. Sub Sectors Covered

The various sub sector covered under the furniture and fitting sub sectors are:-

- Wooden furniture
- Metal furniture
- Plastic furniture
- Bamboo and Cane furniture
- Architectural fittings i.e., Doors/Windows
- Modular furniture
- Hardware fittings
- Enablers :
 - Tools and Equipments & Adhesives
 - Wood Panel Industry - Plywood/Veneer/ Fiber Boards
- Allied segments :
 - Online furniture market
 - Interior Design

5. Wooden Furniture

- About the sector

The furniture industry in India is growing and is expected to increase at a 15%¹⁴ CAGR. The main driving factors for growth in furniture market in India are urbanization, increasing per capita income, rising proportion of working age population and boom in the real estate activities.

Wooden furniture has 50%¹⁵ of market share in Indian furniture industry. The usage of the furniture can be classified under the categories of home, office and other institutions. Wooden furniture manufacturing is a labour intensive industry and the skill requirement is high at every stage of value chain of wood furniture industry.

Majority of wood sector companies fall under micro and small segment. 45% of market accounts for micro companies followed by small size companies at 30%. Medium and large companies account for 20% and 5% respectively.

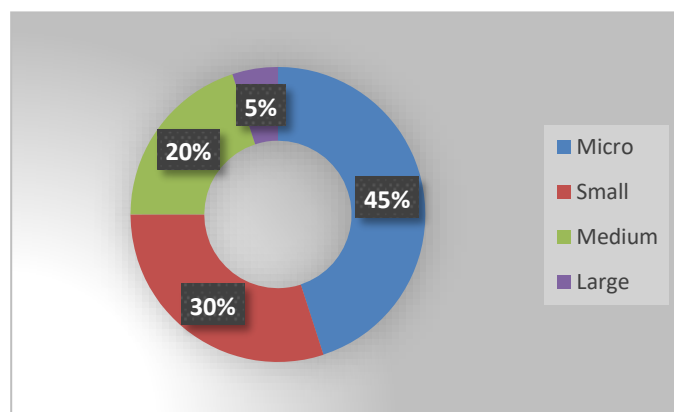
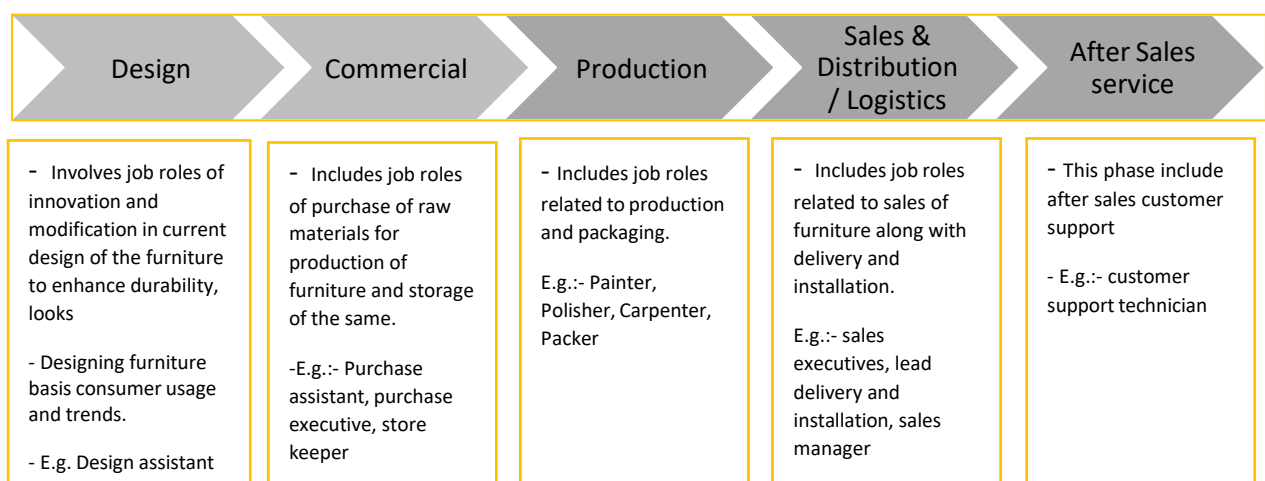


Figure 5: Distribution of wooden furniture market

- Value chain



¹⁴ Primary industry interactions

¹⁵ Primary industry interactions

Value chain of wooden furniture industry has five stages starting from the design phase followed by procurement /commercial, production, sales & distribution and after sales/customer support.

Design phase involve innovation and modification in current design of the furniture to enhance durability, looks. Design process considers/studies the consumer preferences and current trends in market to attract customers, other major parameters for designing are type of furniture and usage like home, office or contract furniture.

The commercial phase includes the purchase of wood. India abounds in several tree species whose wood is used for furniture making. Apart from indigenous wood varieties some woods are imported for furniture making. Major varieties are teak, deodar, saal , sheesham etc. In this stage main job roles are purchase assistant, purchase manager, store keeper etc.

Production phase in wood furniture involve cutting, joining, finishing, polishing etc. Main job roles are carpenters, polishers etc. This stage involves manufacturing of furniture to make it ready for transfer to sale and distribution for final sale.

After production furniture is distributed to different showrooms or warehouses for sales. Sales involves different type of methods either 3 tier system of sales (distribution, wholesale to customer) or direct sales by manufacturer. Current trend in market is online sales of furniture which is growing at fast rate. Some of the job roles are sales executives, delivery installation executives, sales manager, logistic manager etc.

After sales service involves repair and maintenance, redressal of customer grievances and providing after sales support to increase satisfaction level of customers.

- Geographical spread

Wooden furniture sector is mostly unorganized. Wood furniture industry is spread across India. As per NSDC report¹⁶, western region of India is producing ~50% of furniture followed by South at ~27%, East region at ~13%, followed by North at ~10%.

There are major hubs in wooden furniture manufacturing in India famous for their style of manufacturing like carving in Saharanpur (UP), some other clusters are Jodhpur (Rajasthan), Hoshiarpur (Punjab), Ernakulam (Kerala) etc.

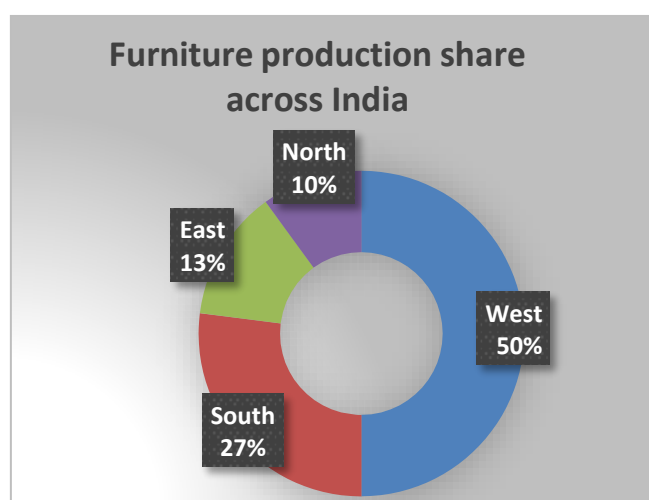


Figure 6: Geographical spread across the country –
Wooden furniture

¹⁶ [Human Resource and Skill requirements in Furniture Sector,2022 \(IMaCS Analysis\)](#)

- Future growth

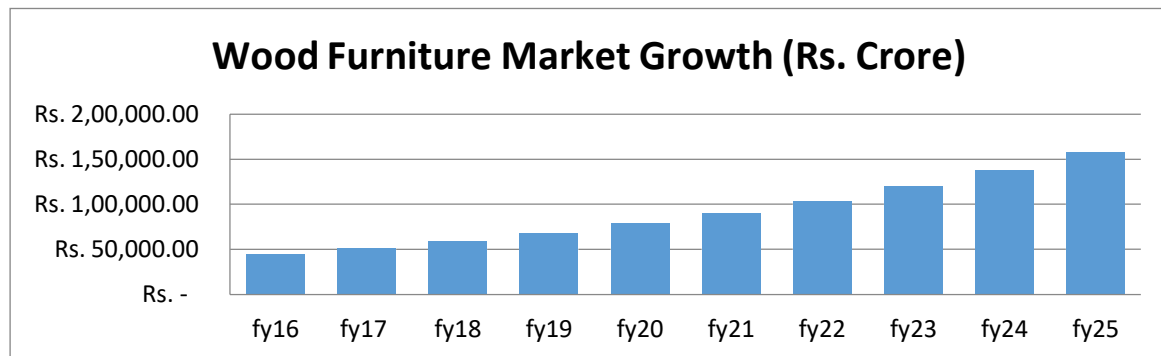


Figure 7: Future Growth of wooden furniture market

At present wood furniture market is Rs.45000 crore and growing at the rate of 15% CAGR, it will reach Rs. 100,000 crore market in 2022 and expected to reach Rs. 158,000 crore in 2025.

- Growth drivers

The market for wood furniture is spread across all over India and is majorly dominated by unorganized sector.

Growth of organized sector is based on various factors -

- Growth in the retail segment - players like Godrej, Wipro furniture, Durian, Furniturewala, etc. are increasing their market share day by day with their retail expansion.
- Expansion in e commerce and online market.

GST would also have a positive impact on furniture industry specially organized market. Tax regulation will reduce input cost of raw material and machinery for the industry.

The other major reasons which are attributable to the growth of the industry are:

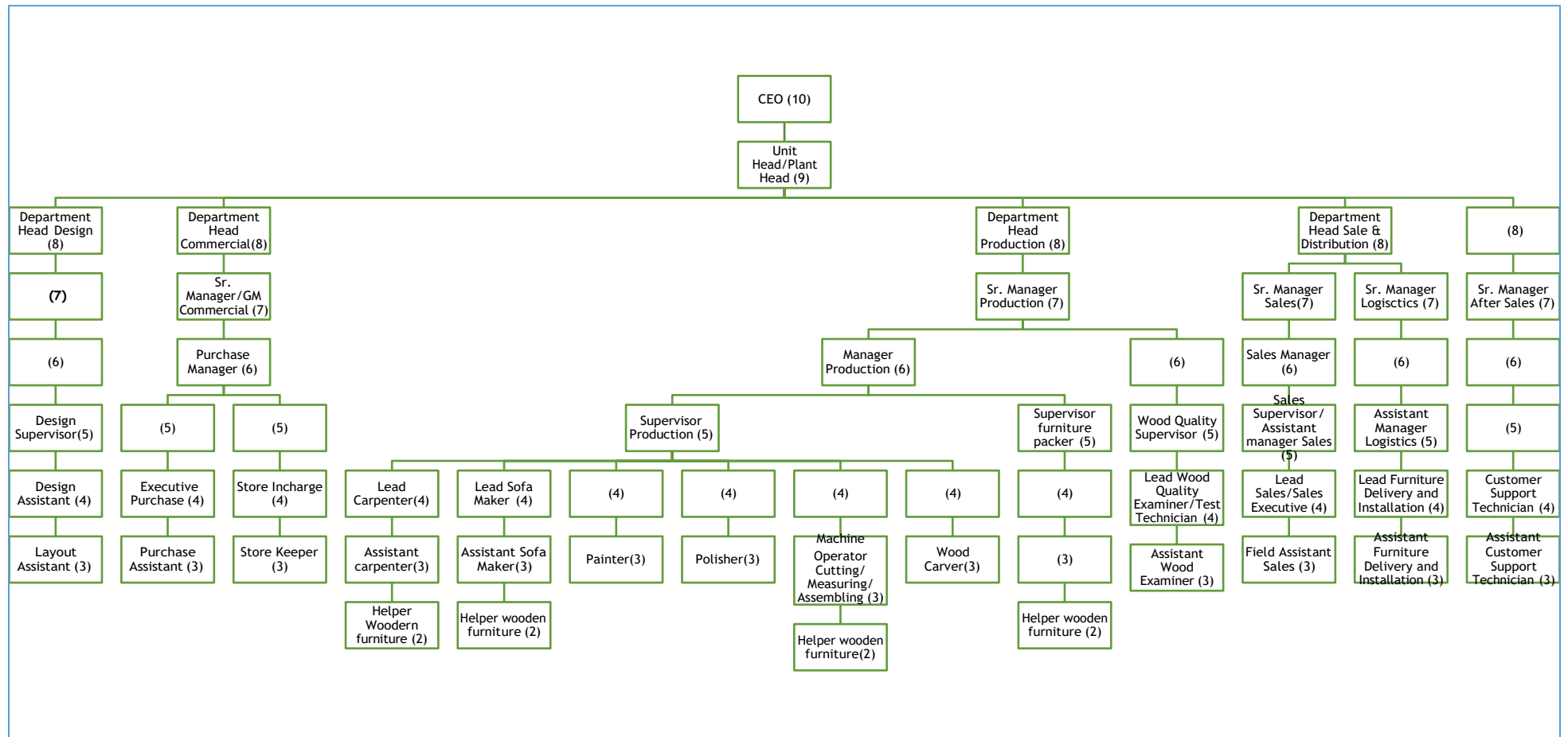
- Changing Lifestyles
- Increased construction activities
- Increasing disposable incomes
- Consumer aspirations are changing along with increased demand for various kinds of furniture and fittings

The market for wooden furniture is directly in proportion to the furniture industry. With the growth in furniture industry expected to be approximately 15%, the future market growth for wooden furniture is highly favourable. .

A number of foreign players are entering the Indian markets via tie ups with Indian players or via setting up their subsidiaries, giving a choice to Indian market. Entry of major world player like IKEA into the Indian markets would help in improving the overall quality standards among small and

medium players and increase brand awareness among the customers. It is further expected that for small players, partnership with IKEA would push for becoming more organised. Further, it would also push for more skilling in jobs to improve manpower efficiency.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce. The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles.

- Skill gap analysis

The below segment covers the skill gap assessment for the wooden furniture sector.

- *Methodology adopted*

Skill gap study of wood furniture industry conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies . A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, others shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players¹⁷.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor Eg: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. Eg: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

¹⁷ As per MSME classification- <http://www.dcmsme.gov.in>

Step 3: Identification of Unique Job Roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data Analysis:

In this step, job role wise man power deployed in wooden furniture industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at 12% taking into consideration the increase rate of the furniture demand in the country at 15% and increase in the efficiencies both technological and manpower based.

- *Unique job roles*

Referring to the workshops and conducting primary industry interactions, the following unique roles were identified:-

NSQF Level	Job Roles -Wooden Furniture
level 7	Sr. Manager Commercial-Wooden Furniture
level 7	Sr. Manager Production -Wooden Furniture
level 7	Sr. Manager Sales-Wooden Furniture
level 7	Sr. Manager Logistics -Wooden Furniture
level 7	Sr. Manager After Sales-Wooden Furniture
level 6	Purchase Manager-Wooden Furniture
level 6	Manager Production-Wooden Furniture
level 6	Sales Manager -Wooden Furniture-Wooden Furniture
level 5	Supervisor Production-Wooden Furniture
level 5	Supervisor Furniture packer-Wooden Furniture
level 5	Design Supervisor -Wooden Furniture
level 5	Sales supervisor/Assistant Manager Sales-wooden Furniture
level 5	Assistant Manager Logistics-Wooden Furniture
level 5	Wood Quality Supervisor-Wooden Furniture
level4	Design Assistant-Wooden Furniture
level4	Store In charge -Wooden Furniture
level4	Executive Purchase-Wooden Furniture
level4	Lead Carpenter-Wooden Furniture
level4	Lead Wood Quality Examiner /test technician-Wooden Furniture
level4	Lead Sales/Executive sales-Wooden Furniture
level4	Lead Sofa Maker-Wooden Furniture

level4	Customer support Technician-Wooden Furniture
level4	Lead Furniture Delivery and Installation-Wooden Furniture
level 3	Assistant Customer support technician-Wooden Furniture
level 3	Layout Assistant-Wooden Furniture
level 3	Store Keeper -Wooden Furniture
level 3	Purchase Assistant-Wooden Furniture
level 3	Machine Operator for cutting/Measuring/Assembling -Wooden Furniture
level 3	Wood Carving-Wooden Furniture
level 3	Assistant Wood Examiner -Wooden Furniture
level 3	Painter -Wooden Furniture
level 3	Assistant Carpenter-Wooden Furniture
level 3	Polisher-Wooden Furniture
level 3	Assistant Sofa Maker -Wooden Furniture
level 3	Field Assistant Sales-Wooden Furniture
level 3	Assistant Furniture Delivery & Installation-Wooden Furniture
level 2	Helper-Wooden Furniture

- *Demand forecast*

It is estimated that there would be an approximate increase of 20 lacs jobs by the end of FY 22 and 36 lacs jobs by end of FY25 in the wooden furniture industry employment. The following table provides the breakup between job roles from FY16 to FY25:

NSQF Level	Job Roles -Wooden Furniture	Current	Estimated manpower		Gap	
		2016	2022	2025	2022	2025
level 3	Assistant Carpenter-Wooden Furniture	382205	754404	1059883	372200	677679
level 2	Helper-Wooden Furniture	331045	653424	918014	322379	586969
level4	Lead Sales/Executive sales-Wooden Furniture	257465	508189	713970	250725	456505
level4	Lead Carpenter-Wooden Furniture	204202	403058	566267	198856	362066
level 3	Painter -Wooden Furniture	196685	388222	545424	191537	348738
level 3	Polisher-Wooden Furniture	119037	234957	330098	115921	211061
level 3	Store Keeper -Wooden Furniture	98572	194564	273349	95992	174777
level4	Lead Sofa Maker-Wooden Furniture	96195	189871	266755	93677	170561
level 3	Assistant Furniture Delivery & Installation-Wooden Furniture	91833	181262	254660	89429	162827
level 3	Wood Carving-Wooden Furniture	38641	76270	107154	37629	68513
level 5	Sales supervisor/Assistant Manager Sales- Wooden Furniture	34567	68229	95857	33662	61290
level 3	Machine Operator for cutting/Measuring/Assembling - Wooden Furniture	25011	49368	69359	24357	44347
level5	Wood Quality Supervisor-Wooden Furniture	22177	43773	61497	21596	39321

level4	Executive Purchase-Wooden Furniture	20392	40249	56547	19858	36156
level 3	Assistant Sofa Maker -Wooden Furniture	19386	38264	53758	18878	34372
level 3	Layout Assistant-Wooden Furniture	15612	30816	43294	15203	27682
level 3	Purchase Assistant-Wooden Furniture	14458	28537	40092	14079	25634
level4	Design Assistant-Wooden Furniture	13330	26310	36964	12981	23635
level 5	Assistant Manager Logistics-Wooden Furniture	11865	23420	32903	11555	21038
level 5	Design Supervisor -Wooden Furniture	11645	22986	32293	11340	20648
level 6	Sales Manager -Wooden Furniture-Wooden Furniture	11329	22361	31415	11032	20086
level4	Lead Wood Quality Examiner /test technician-Wooden Furniture	9642	19032	26739	9390	17097
level 6	Manager Production-Wooden Furniture	8002	15794	22190	7792	14188
level 5	Supervisor Production-Wooden Furniture	7525	14853	20868	7328	13343
level4	Lead Furniture Delivery and Installation-Wooden Furniture	7246	14302	20093	7056	12848
level 6	Purchase Manager-Wooden Furniture	6368	12569	17658	6201	11291
level 3	Field Assistant Sales-Wooden Furniture	5198	10260	14414	5062	9216
level4	Store In charge -Wooden Furniture	5163	10192	14319	5028	9155
level 3	Assistant Customer support technician-Wooden Furniture	1883	3717	5223	1834	3339
level 5	Supervisor Furniture packer-Wooden Furniture	1752	3457	4857	1706	3106
level 7	Sr. Manager Commercial-Wooden Furniture	1550	3059	4297	1509	2748
level 7	Sr. Manager Production -Wooden Furniture	1550	3059	4297	1509	2748
level 7	Sr. Manager Sales-Wooden Furniture	1550	3059	4297	1509	2748
level 7	Sr. Manager After Sales-Wooden Furniture	1550	3059	4297	1509	2748
level 7	Sr. Manager Logistics -Wooden Furniture	1399	2761	3880	1362	1118
level 3	Assistant Wood Examiner -Wooden Furniture	1318	2602	3656	1284	2338
level4	Customer support Technician-Wooden Furniture	1281	2528	3551	1247	2271
Total		2078625	4102837	5764190	2024212	3685565

- **Manpower - organized Vs unorganized market:**

On the basis of our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Wooden Furniture - Job Roles	2016 Manpower	Organized	Unorganized
level 3	Assistant Carpenter-Wooden Furniture	382205	45516	336689
level 2	Helper-Wooden Furniture	331045	35325	295720
level4	Lead Sales/Executive sales-Wooden Furniture	257465	20420	237045
level4	Lead – Carpenter-Wooden Furniture	204202	31448	172754
level 3	Painter -Wooden Furniture	196685	9755	186930
level 3	Polisher-Wooden Furniture	119037	7982	111055
level 3	Store Keeper -Wooden Furniture	98572	5799	92773
level 4	Lead Sofa Maker-Wooden Furniture	96195	4057	92138
level 3	Assistant Furniture Delivery & Installation-Wooden Furniture	91833	9032	82800
level 3	Wood Carving-Wooden Furniture	38641	6640	32001
level 5	Sales supervisor/Assistant Manager Sales	34567	12873	21694
level 3	Machine Operator for cutting/Measuring/Assembling - Wooden Furniture	25011	12310	12702
level5	Wood Quality Supervisor-Wooden Furniture	22177	4425	17752
level4	Executive Purchase-Wooden Furniture	20392	5050	15341
level 3	Assistant sofa maker -Wooden Furniture	19386	7757	11629
level 3	Layout Assistant-Wooden Furniture	15612	5719	9893
level 3	Purchase Assistant-Wooden Furniture	14458	7963	6494
level4	Design Assistant-Wooden Furniture	13330	3128	10202
level 5	Assistant Manager Logistics-Wooden Furniture	11865	2106	9760
level 5	Design Supervisor -Wooden Furniture	11645	4376	7269
level 6	Sales Manager -Wooden Furniture-Wooden Furniture	11329	2549	8779
level4	Lead Wood Quality Examiner /test technician-Wooden Furniture	9642	5141	4501
level 6	Manager Production-Wooden Furniture	8002	2634	5368
level 5	Supervisor Production-Wooden Furniture	7525	2414	5111
level4	Lead Furniture Delivery and Installation-Wooden Furniture	7246	6024	1222
level 6	Purchase Manager-Wooden Furniture	6368	1835	4532
level 3	Field Assistant Sales-Wooden Furniture	5198	5198	0

level4	Store In charge -Wooden Furniture	5163	2977	2186
level 3	Assistant Customer support technician-Wooden Furniture	1883	1883	0
level 5	Supervisor Furniture packer-Wooden Furniture	1752	1752	0
level 7	Sr. Manager Commercial-Wooden Furniture	1550	907	643
level 7	Sr. Manager Production -Wooden Furniture	1550	907	643
level 7	Sr. Manager Sales-Wooden Furniture	1550	907	643
level 7	Sr. Manager After sales -Wooden Furniture	1550	907	643
level 7	Sr. Manager Logistics -Wooden Furniture	1399	756	643
level 3	Assistant Wood Examiner -Wooden Furniture	1318	1318	0
level 4	Customer support Technician-Wooden Furniture	1281	1281	0
	Total	2078625	281069	1797556

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

6. Metal Furniture

- About the sector

The Indian furniture industry has evolved over the years. Metal furniture has nearly 25%¹⁸ market share of furniture industry in India, about INR 22,500 Cr market and majority of manufacturers belongs to small and medium enterprises.

There are various kinds of metals used in furniture. Few of the common metals used are listed below:

1. Aluminium: is a light and corrosion resistant metal, and it is heavily used for stamped and cast furniture, especially in the category of molded chairs and outdoor furniture.
2. Stainless Steel: An alloy of carbon, iron, chromium, and other metals, stainless steel is found in furniture and fixtures throughout the home/office. Because of the chromium it doesn't rust, oxidize, or corrode and is a low maintenance material and stronger than aluminum. Stainless Steel is used very extensively for most modern interior furnishings involving metal.
3. Wrought Iron: Wrought iron refers to metal that has been hammered or bent into shape and has a roughed up surface. It is commonly used to make beds, tables, fireplace accessories, outdoor garden furniture etc.
4. The other kind of metals used in furniture include Brass and Copper. The maintenance of brass materials is low cost. Copper is reddish-brown in color and is found on all types of décor of furniture and fittings

Some of the common metal finishes are antiqued, polished, satin finish, hammered and brushed, brass/chrome plating.

Metal furniture is a popular choice of furniture. It is commonly used in outdoors for decks and patios. Metal furniture is used indoors also, such as beds/steel beds, tables, steel racks and metal cabinets, cupboards etc. Besides being sturdy, metal furniture is attractive and gives a contemporary look. It is extensively being used in offices and hospitals.

The usage of metal furniture can be classified on the end users i.e., home / personal or offices / institutions. With the growth of commercial and household activities, steel furniture is preferred over the other kinds due to its durability and easy transportability.

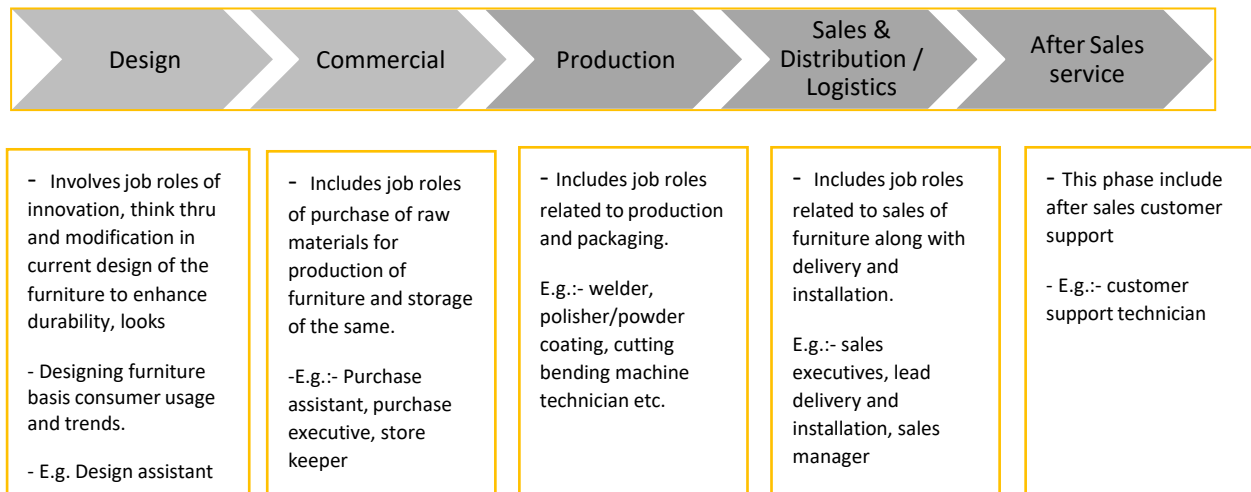
Few examples of metal furniture:

- Home Furniture : examples : Shoe Racks, Single Beds, Bunk Beds, storage beds, sofas, double beds, dining sets, cupboards, storage boxes, tables etc.
- Industrial / Office Furniture: steel desks, chairs, tables, cupboards etc.
- Schools furniture: study desk, hostel beds, cupboards, canteen table and chairs
- Healthcare furniture: hospital beds and tables accessories
- Hotels /Other institutions: Desks, chairs, display stands, nest of tables, beds etc.

Steel almriah, steel cupboards, steel beds, steel chairs- find extensive use in industrial, commercial and household segments. Many of these furniture is used by government organisations as well.

¹⁸ Basis Industry interactions

- Value chain



The value chain in metal furniture industry is similar to other segments and starts from the design phase followed by procurement /commercial, production, sales & distribution and after sales support.

Design phase includes the think thru to designing the furniture and in some manufacturing firms, also forms part of R&D division. Design could be for home, office or contract furniture. The commercial phase includes the purchase of kind of metal ranging from steel, aluminium, brass, copper, wrought iron, etc. This would include majorly roles of purchaser, raw material tester, and store keeper and so on.

Production is a major phase in the value chain and includes the work of processing, assembling, and finishing of the furniture manufactured. This would include the job roles of the welder, cutting machine operator, polisher, assembler etc.

Production phase is followed by the sales & distribution function. Sales could be in the form of direct sales, retail sales or wholesale sales. These days companies are also adopting to e-retailing which is fast becoming a popular medium for sales especially in the Tier I and II cities. Job roles of sales executives and delivery installation executives are gaining importance in this phase. Followed by sales is the after sales service/customer support division, which has gained momentum in the last decade especially with increased focus on customer service.

- Geographical spread

Major geographical spread for steel furniture are Andhra Pradesh, Delhi (NCR) and Maharashtra¹⁹. Besides the above mentioned states, UP (majorly- Kanpur and Lucknow) and Gujrat also have steel furniture production units. Major players in metal furniture belong to medium and small enterprises. Some big players in this segment are Godrej, Jalaram Steel, Furniture Kraft, Wipro furniture etc.

¹⁹ As per List of SME Clusters in India (Small and Medium Enterprises)- <http://dcmsme.gov.in>

- Future growth

With the growth of economy, there has been growth in the sectors of manufacturing and service. This has resulted in laying down a path of progress for the furniture industry.

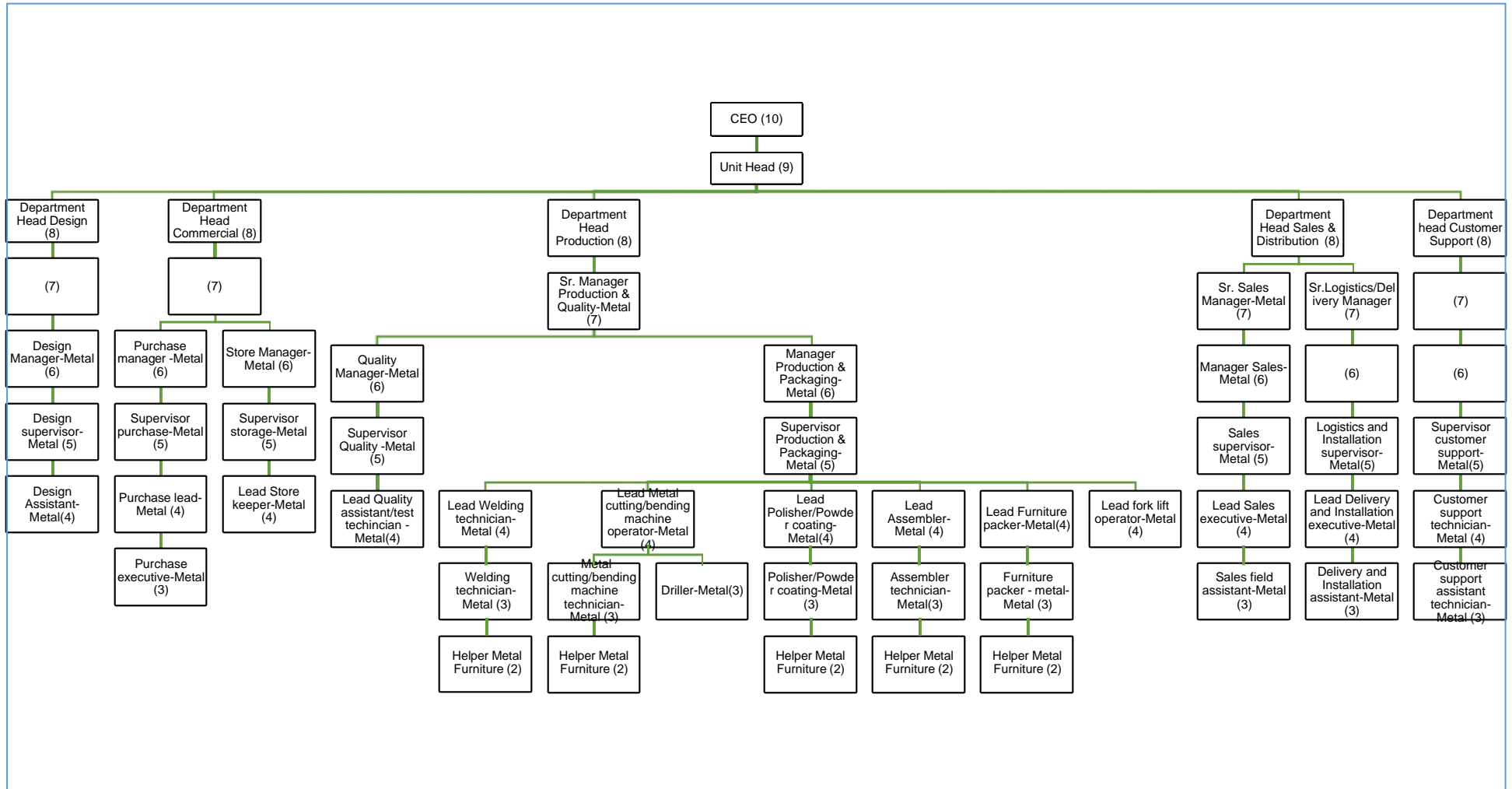
The demand of metal furniture has increased considerably. The major reasons which are attributable to the growth of the industry are:

- Increased construction real estate activities resulting in increase in demand for furniture in commercial and residential purposes
- Consumer shift towards organised segment and increased brand awareness
- Increasing disposable incomes
- Changing lifestyles and consumer aspirations along with preference for high quality and low maintenance furniture
- Increased reach through technology and rise of ecommerce and online market
- Government efforts towards improving regulations

The growth of the metal furniture industry is predicted to be line with the furniture industry and is expected to be around ~15% in the coming years.

Due to elegant appearance, cost advantage, durability and innovative designs, metal furniture is becoming popular in modern society. Further, with major players like IKEA coming to the market it is expected that it would provide a boost to the enterprising vendors along with improving retail experience and push for higher quality standards. Further, for vendors by partnering with IKEA could result in opening of doors to the global market with improved standards.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce
The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles

- Skill gap analysis

The below segment covers the skill gap assessment for the metal furniture sector.

- *Methodology adopted*

Skill gap study conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players²⁰.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

²⁰ As per MSME classification - <http://www.dcmsme.gov.in>

Step 3: Identification of unique job roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data analysis:

In this step, job role wise man power deployed in metal furniture industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at 12% taking into consideration the increase rate of the furniture demand in the country and increase in the efficiencies both technological and manpower based.

- *Unique Job Roles*

Referring to the workshops and conducting primary industry interactions, the following unique roles were identified:-

NSQF level	Metal Furniture - Job Roles
level7	Sr. Manager Production & Quality-Metal furniture
level7	Sr. Sales Manager-Metal furniture
level7	Sr. Logistics/Delivery Manager-Metal furniture
level6	Quality Manager-Metal furniture
level6	Design Manager-Metal furniture
level6	Purchase manager-Metal furniture
level6	Manager Production and Packaging-Metal furniture
level6	Store Manager-Metal furniture
level6	Manager Sales-Metal furniture
level5	Supervisor storage-Metal furniture
level5	Design supervisor-Metal furniture
level5	Supervisor purchase-Metal furniture
level5	Supervisor Quality-Metal furniture
level5	Supervisor production & packaging-Metal furniture
level5	Sales supervisor-Metal furniture
level5	Logistics and Installation supervisor-Metal furniture
level5	Supervisor customer support-Metal furniture
level4	Lead Store keeper-Metal furniture
level4	Design Assistant-Metal furniture

level4	Purchase lead-Metal furniture
level4	Lead fork lift operator-Metal furniture
level4	Lead welding technician-Metal furniture
level4	Lead Metal cutting/bending machine operator-Metal furniture
level4	Lead Polisher/ powder coating technician- Metal Furniture
level4	Lead Quality assistant/test technician -Metal furniture
level4	Lead Assembler-Metal furniture
level4	Lead Furniture packer-Metal furniture
level4	Lead Sales executive-Metal furniture
level4	Lead Delivery and Installation executive-Metal furniture
level4	Customer support technician-Metal furniture
level3	Purchase executive-Metal furniture
level3	Welding technician-Metal furniture
level3	Metal cutting/bending machine technician-Metal furniture
level3	Polisher/Powder coating technician-Metal furniture
level3	Driller-Metal furniture
level3	Assembler technician-Metal furniture
level3	Furniture packer - Metal -Metal furniture
level3	Sales field assistant-Metal furniture
level3	Delivery and Installation assistant-Metal furniture
level3	Customer support assistant technician-Metal furniture
level2	Helper-Metal furniture

- *Demand forecast*

It is estimated that there would be an approximate increase of 6.9 lacs jobs by the end of FY 22 and 12.6 lacs jobs by end of FY25 in the job roles. The following table provides the breakup between job roles from FY16 to FY25:

NSQF level	Metal Furniture - Job Roles	Current	Estimated Manpower		Gap	
		2016	2022	2025	2022	2025
level3	Metal cutting/bending machine technician-Metal furniture	77355	152686	214513	75330	137157
level3	Welding technician-Metal furniture	60069	118566	166576	58497	106507
level3	Polisher/Powder coating technician-Metal furniture	51614	101877	143130	50263	91516
level3	Delivery and Installation assistant-Metal furniture	50805	100280	140885	49475	90081
level2	Helper-Metal furniture	48977	96672	135818	47695	86841
level3	Assembler technician-Metal furniture	45951	90699	127426	44748	81475
level3	Sales field assistant-Metal furniture	42826	84531	118760	41705	75934
level3	Customer support assistant technician-Metal furniture	36180	71413	100330	35233	64150

level4	Lead welding technician-Metal furniture	29000	57241	80420	28241	51420
level4	Lead Metal cutting/bending machine operator-Metal furniture	26919	53133	74648	26214	47729
level3	Driller-Metal furniture	26678	52657	73979	25979	47302
level4	Lead Polisher/ powder coating technician	26564	52432	73663	25868	47099
level4	Lead Quality assistant/test technician -Metal furniture	26069	51455	72290	25386	46222
level4	Lead Sales executive-Metal furniture	25498	50328	70708	24830	45210
level5	Supervisor production & packaging-Metal furniture	25091	49526	69580	24434	44489
level4	Lead Furniture packer-Metal furniture	24850	49050	68912	24200	44061
level4	Lead Store keeper-Metal furniture	24180	47727	67053	23547	42873
level4	Customer support technician-Metal furniture	24113	47594	66866	23481	42753
level5	Supervisor customer support-Metal furniture	24045	47461	66679	23416	42634
level4	Lead Assembler-Metal furniture	3173	6263	8798	3090	5626
level3	Furniture packer - Metal -Metal furniture	2069	4083	5736	2014	3668
level4	Lead Delivery and Installation executive-Metal furniture	1827	3607	5068	1780	3240
level6	Manager Production and Packaging-Metal furniture	1586	3131	4399	1545	2813
level5	Supervisor storage-Metal furniture	1218	2405	3378	1186	2160
level5	Sales supervisor-Metal furniture	1149	2269	3187	1119	2038
level6	Quality Manager-Metal furniture	881	1738	2442	858	1562
level6	Store Manager-Metal furniture	791	1561	2193	770	1402
level6	Manager Sales-Metal furniture	662	1307	1836	645	1174
level7	Sr. Manager Production & Quality-Metal furniture	527	1040	1462	513	935
level5	supervisor Quality-Metal furniture	315	622	874	307	559
level5	Logistics and Installation supervisor-Metal furniture	225	444	624	219	399
level4	Design Assistant-Metal furniture	225	444	624	219	399
level4	Purchase lead-Metal furniture	135	266	374	131	239
level5	Design supervisor-Metal furniture	113	222	312	110	199
level7	Sr. Sales Manager-Metal furniture	90	178	250	88	160
level5	Supervisor purchase-Metal furniture	90	178	250	88	160
level4	Lead fork lift operator-Metal furniture	90	178	250	88	160
level3	Purchase executive-Metal furniture	68	133	187	66	120
level7	Sr. Logistics/Delivery Manager-Metal furniture	45	89	125	44	80
level6	Design Manager-Metal furniture	45	89	125	44	80
level6	Purchase manager-Metal furniture	45	89	125	44	80
	Total	712152	1405662	1974854	693510	1262702

- **Manpower - organized Vs unorganized market:**

On the basis of our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Metal Furniture - Job Roles	2016 Manpower	Organized	Unorganized
level3	Metal cutting/bending machine technician-Metal Furniture	77355	3186	74170
level3	Welding technician-Metal Furniture	60069	7368	52701
level3	Polisher/Powder coating technician-Metal Furniture	51614	5160	46454
level3	Delivery and Installation assistant-Metal Furniture	50805	1720	49085
level2	Helper-Metal Furniture	48977	616	48362
level3	assembler technician-Metal Furniture	45951	4538	41413
level3	Sales field assistant-Metal Furniture	42826	1621	41205
level3	Customer support assistant technician-Metal Furniture	36180	180	36000
level4	Lead welding technician-Metal Furniture	29000	3072	25929
level4	Lead Metal cutting/bending machine operator-Metal Furniture	26919	1713	25205
level3	Driller-Metal Furniture	26678	1593	25085
level4	Lead Polisher/ powder coating technician-Metal Furniture	26564	1599	24964
level4	Lead Quality assistant/test technician -Metal Furniture	26069	1225	24844
Level4	Lead Sales executive-Metal Furniture	25498	895	24603
level5	Supervisor production & packaging-Metal Furniture	25091	609	24482
level4	Lead Furniture packer-Metal Furniture	24850	489	24362
level4	Lead Store keeper-Metal Furniture	24180	180	24000
level4	Customer support technician-Metal Furniture	24113	113	24000
level5	Supervisor customer support-Metal Furniture	24045	45	24000
level4	Lead Assembler-Metal Furniture	3173	1967	1205
level3	Furniture packer - metal-Metal Furniture	2069	1225	844
level4	Lead Delivery and Installation executive-Metal Furniture	1827	1104	723
level6	Manager Production and Packaging-Metal Furniture	1586	984	603
level5	Supervisor storage-Metal Furniture	1218	736	482
level5	Sales supervisor-Metal Furniture	1149	667	482
level6	Quality Manager-Metal Furniture	881	519	362
level6	Store Manager-Metal Furniture	791	429	362
level6	Manager Sales-Metal Furniture	662	421	241
level7	Sr. Manager Production & Quality-Metal Furniture	527	286	241
level5	Supervisor Quality-Metal Furniture	315	315	0
level5	Logistics and Installation supervisor-Metal Furniture	225	225	0
level4	Design Assistant-Metal Furniture	225	225	0
level4	Purchase lead-Metal Furniture	135	135	0

level5	Design supervisor-Metal Furniture	113	113	0
level7	Sr. Sales Manager -Metal Furniture	90	90	0
level5	Supervisor purchase-Metal Furniture	90	90	0
level4	Lead fork lift operator-Metal Furniture	90	90	0
level3	Purchase executive-Metal Furniture	68	68	0
level7	Sr. Logistics/Delivery Manager-Metal Furniture	45	45	0
level6	Design Manager-Metal Furniture	45	45	0
level6	Purchase manager -Metal Furniture	45	45	0
	Total	712152	45744	666408

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

7. Plastic Furniture

- About the sector

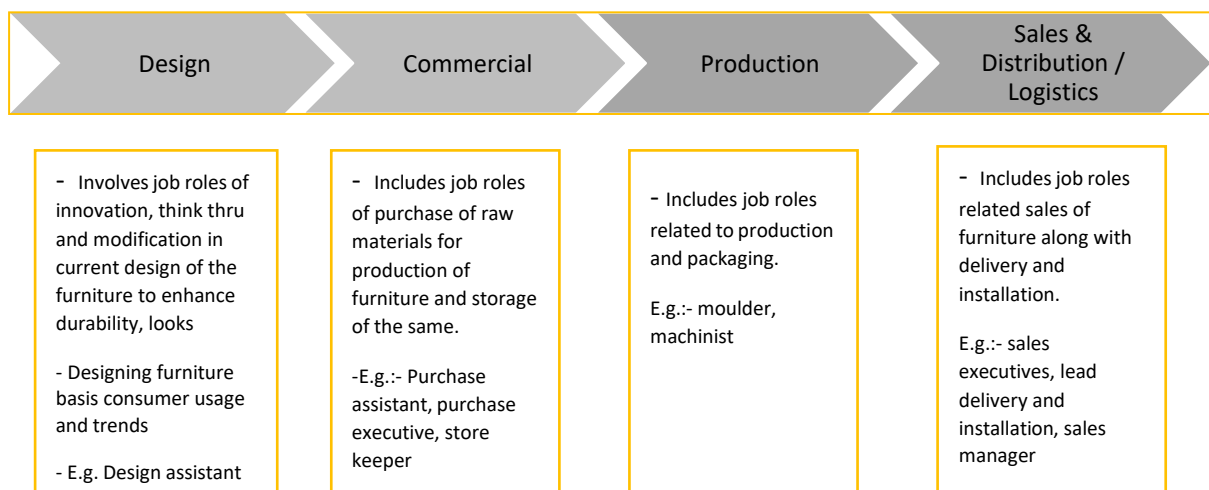
The growth in the use of plastic in every sphere of life has only increased the use of plastic furniture in India and across the world.

Increasing urbanization, changing lifestyle, cost advantages and demographic dividend are factors promoting the opportunity for further usage of plastic furniture.

Rise of e commerce and online market has created opportunities for organized sector growth in plastic furniture market, Indian consumer has accepted the online market and it is growing day by day. The economies of scale helps manufacturers produce more and transport the goods to other parts. As per industry interactions, the current market size is approximately 3500 crore.

Major companies operating in this segment are Nilkamal, Supreme industries, Cello Wim Plast, Prima Plastics, Uma Plastics etc.

- Value chain



The value chain in plastic furniture industry is similar to other segments' manufacturing setup and starts from the design phase followed by procurement /commercial, production, sales & distribution.

Design phase includes the think thru to designing the furniture. Design could vary upon the usage w.r.t. home, office or contract furniture. The commercial phase includes the purchase of different kinds of plastic ranging from PVC, PET (polyethylene terephthalate), HDPE (high-density polyethylene) etc. and other raw materials needed. This would include majorly roles of purchaser, store keeper and so on.

Production phase is a major phase in the value chain and includes the work of moulding which is largely done by machines. This would include the job roles of the machinists, moulding assistants, store keeper etc.

Post the production, there is sales which could be in the form of direct sales, retail sales or wholesale sales. These days companies are also adopting to medium of e-retailing. Job roles of sales executives and delivery installation executives are gaining importance in this phase.

- Geographical spread

Plastic manufacturing locations are spread all over India.

In the North, major states are HP (Baddi), UP, Delhi (NCR) and Punjab. In the South, major states are Tamil Nadu and Pondicherry. In the West, major states are Maharashtra and Union territories of Daman & Diu and Dadra & Nagar Haveli (Silvassa). In the East, major states are West Bengal and Assam (Guwahati)²¹.

- Future growth

The market for Plastic furniture is spread across a few major players who dominate the market while a lot of small and medium players cater to smaller markets across India. This is the most organized and industrialized sector in the furniture industry. There is opportunity for further growth of the organised large players to flourish with the changing mind set of the society.

The major reasons which are attributable to the growth of the industry are:

- Changing Lifestyles
- Increased construction activities
- Increased brand awareness
- Increasing disposable incomes

With positive growth in the real estate sector, there is increase in the demand for plastics furniture in the market. Price conscious consumers prefer cheaper alternate options to wooden furniture.

The market for plastic furniture is directly in proportion to the furniture industry. With the growth in furniture industry expected to be approximately 15%, the future market growth for plastic furniture is favourable. It is likely to grow at the rate of 12% due to increased environmental norms on plastic disposal.

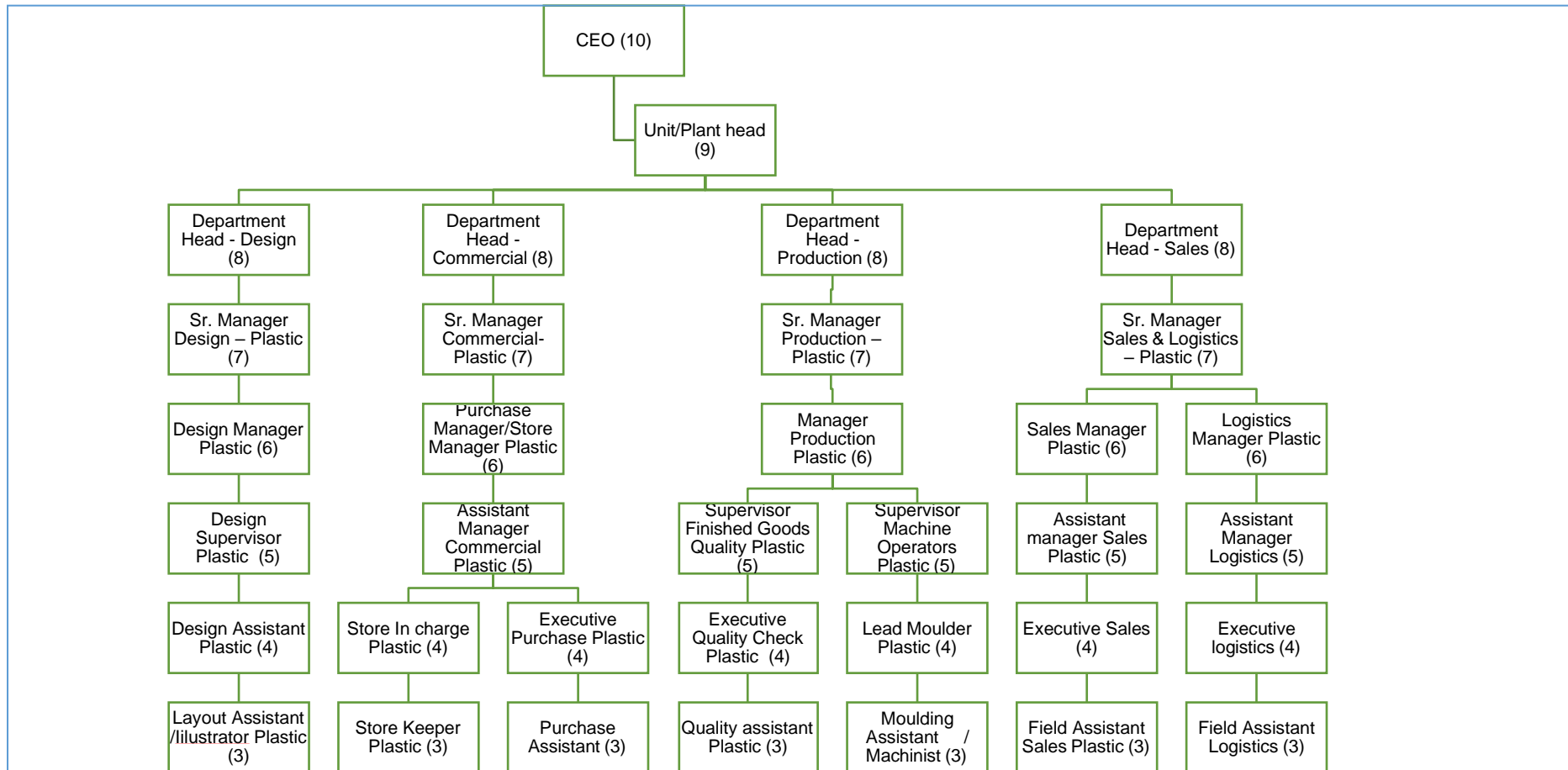
Even though the market has been undergoing a considerable change over the last decade, the industry remains competitive. The competitive nature of the market is also due to the rising imports penetration in the market. Chinese imports have invaded the local markets giving tough competition

²¹ Basis primary interactions

to Indian players for price and some in quality too. Indian players thus, need to keep themselves updated on technological manpower and also need skilled manpower to reduce costs.

IKEA's entry will make a big difference at the back end. Typically, IKEA does not invest in factories. But it works closely with enterprising entrepreneurs to upgrade and upscale the stores to meet its global quality and supply standards. This means many small and unorganised manufacturers in furniture and furnishing segments will benefit. IKEA's relationship with its vendors is collaborative. Exports from India could change with IKEA's India entry. While IKEA might use some of its Indian vendors for its global needs, being an IKEA supplier will also open many other doors for Indian vendors.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce
 The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles.

Note - In the above occupational map of plastic furniture, we do not see involvement of helper (level 2) since the manufacturing of plastic furniture is machine intensive. Further, loader/unloaders are required but they are not any industry specific and not covered in this study.

- Skill gap analysis

- *Methodology adopted*

Skill gap study conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players²². Further, the production in this segment is machine capacity based and thus, the average turnover for small companies is on the higher side.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

²² As per MSME classification - <http://www.dcmsme.gov.in>

Step 3: Identification of unique job roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data analysis:

In this step, job role wise man power deployed in plastic furniture industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at 12% taking into consideration the increase rate of the furniture demand in the country and increase in the efficiencies both technological and manpower based.

- *Unique job roles*

Referring to the workshops and conducting primary industry interactions, the following unique roles were identified:-

NSQF level	Job Roles
level 7	Sr. Manager Design – Plastic Furniture
level 7	Sr. Manager Commercial – Plastic Furniture
level 7	Sr. Manager Production – Plastic Furniture
level 7	Sr. Manager Sales & Logistics - Plastic Furniture
Level 6	Design Manager - Plastic Furniture
Level 6	Purchase Manager/Store Manager - Plastic Furniture
Level 6	Manager Production - Plastic Furniture
Level 6	Sales Manager - Plastic Furniture
Level 6	Logistics Manager - Plastic Furniture
Level 5	Design Supervisor - Plastic Furniture
Level 5	Assistant Manager Commercial - Plastic Furniture
Level 5	Supervisor Finished Goods Quality - Plastic Furniture
Level 5	Supervisor Machine Operators - Plastic Furniture
Level 5	Assistant manager Sales - Plastic Furniture
Level 5	Assistant Manager Logistics - Plastic Furniture
Level 4	Design Assistant - Plastic Furniture
Level 4	Store In charge - Plastic Furniture
Level 4	Executive Purchase - Plastic Furniture
Level 4	Executive Quality Check- Plastic Furniture

Level 4	Lead Moulder - Plastic Furniture
Level 4	Executive Sales - Plastic Furniture
Level 4	Executive logistics - Plastic Furniture
Level 3	Layout Assistant /Illustrator - Plastic Furniture
Level 3	Store Keeper - Plastic Furniture
Level 3	Purchase Assistant - Plastic Furniture
Level 3	Moulding Assistant/Machinist - Plastic Furniture
Level 3	Quality assistant - Plastic Furniture
Level 3	Field Assistant Sales - Plastic Furniture
Level 3	Field Assistant Logistics - Plastic Furniture

- *Demand forecast*

It is estimated that there would be an approximate increase of approximately 32,000 jobs by the end of FY 22 and approximately 58,000 jobs by end of FY25 in the job roles. The following table provides the breakup between job roles from FY16 to FY25:

NSQF level	Plastic	Current	Estimated Manpower		Gap	
		2016	2022	2025	2022	2025
Level 3	Moulding Assistant/Machinist – Plastic Furniture	18632	36776	51668	18144	33036
Level 3	Field Assistant Sales– Plastic Furniture	3894	7686	10798	3792	6904
Level 5	Assistant manager Sales– Plastic Furniture	3820	7539	10592	3720	6772
Level 6	Sales Manager– Plastic Furniture	1518	2995	4208	1478	2691
Level 5	Design Supervisor– Plastic Furniture	979	1931	2713	953	1735
Level 4	Executive Sales – Plastic Furniture	790	1559	2191	769	1401
Level 5	Supervisor Machine Operators – Plastic Furniture	639	1261	1772	622	1133
Level 6	Manager Production– Plastic Furniture	617	1217	1710	600	1093
Level 4	Lead Moulder– Plastic Furniture	258	509	715	251	457
Level 6	Logistics Manager– Plastic Furniture	176	346	487	171	311
Level 4	Executive logistics – Plastic Furniture	176	346	487	171	311
Level 5	Supervisor Finished Goods Quality– Plastic Furniture	172	339	477	167	305
Level 4	Design Assistant– Plastic Furniture	118	232	326	114	208
level 7	Sr. Manager Production– Plastic Furniture	114	225	316	111	202

Level 3	Layout Assistant /Illustrator– Plastic Furniture	95	188	263	93	168
level 7	Sr. Manager Sales & Logistics– Plastic Furniture	86	170	238	84	152
Level 5	Assistant Manager Commercial– Plastic Furniture	86	170	238	84	152
Level 5	Assistant Manager Logistics– Plastic Furniture	86	170	238	84	152
Level 6	Purchase Manager/Store Manager– Plastic Furniture	79	156	219	77	140
Level 3	Quality assistant – Plastic Furniture	79	156	219	77	140
Level 3	Field Assistant Logistics– Plastic Furniture	79	156	219	77	140
Level 6	Design Manager– Plastic Furniture	76	149	209	74	134
level 7	Sr. Manager Commercial– Plastic Furniture	72	142	200	70	128
Level 3	Store Keeper– Plastic Furniture	72	142	200	70	128
Level 3	Purchase Assistant– Plastic Furniture	65	128	180	63	115
level 7	Sr. Manager Design– Plastic Furniture	51	101	141	50	90
Level 4	Executive Quality Check– Plastic Furniture	35	69	97	34	62
Level 4	Store In charge – Plastic Furniture	18	35	49	17	31
Level 4	Executive Purchase– Plastic Furniture	18	35	49	17	31
Total		32895	64929	91220	32034	58325

- **Manpower - organized Vs unorganized Market:**

On the basis of our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Plastic Furniture - Job Roles	2016 Manpower	Organized	Unorganized
Level 3	Moulding Assistant/Machinist- Plastic furniture	18632	11542	7090
Level 3	Field Assistant Sales-Plastic furniture	3894	3144	750
Level 5	Assistant manager Sales-Plastic furniture	3820	260	3560
Level 6	Sales Manager-Plastic furniture	1518	523	995
Level 5	Design Supervisor-Plastic furniture	979	89	890
Level 4	Executive Sales -Plastic furniture	790	640	150
Level 5	Supervisor Machine Operators - Plastic furniture	639	519	120

Level 6	Manager Production-Plastic furniture	617	149	468
Level 4	Lead Moulder-Plastic furniture	258	213	45
Level 6	Logistics Manager-Plastic furniture	176	146	30
Level 4	Executive logistics -Plastic furniture	176	146	30
Level 5	Supervisor Finished Goods Quality-Plastic furniture	172	142	30
Level 4	Design Assistant-Plastic furniture	118	103	15
level 7	Sr. Manager Production-Plastic furniture	114	99	15
Level 3	Layout Assistant /Illustrator-Plastic furniture	95	65	30
level 7	Sr. Manager Sales & Logistics-Plastic furniture	86	71	15
Level 5	Assistant Manager Commercial-Plastic furniture	86	71	15
Level 5	Assistant Manager Logistics-Plastic furniture	86	71	15
Level 6	Purchase Manager/Store Manager-Plastic furniture	79	64	15
Level 3	Quality assistant -Plastic furniture	79	64	15
Level 3	Field Assistant Logistics-Plastic furniture	79	64	15
Level 6	Design Manager-Plastic furniture	76	61	15
level 7	Sr. Manager Commercial-Plastic furniture	72	57	15
Level 3	Store Keeper-Plastic furniture	72	57	15
Level 3	Purchase Assistant-Plastic furniture	65	50	15
level 7	Sr. Manager Design-Plastic furniture	51	36	15
Level 4	Executive Quality Check-Plastic furniture	35	35	0
Level 4	Store In charge -Plastic furniture	18	18	0
Level 4	Executive Purchase-Plastic furniture	18	18	0
	Total	32895	18513	14383

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

8. Cane and Bamboo Furniture

- About the sector

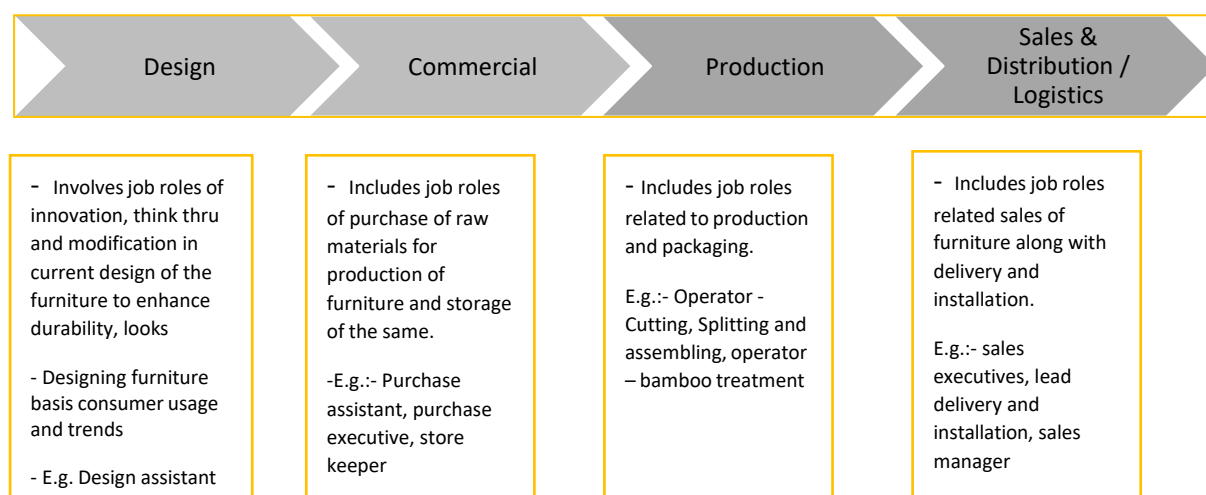
Genetic resources of bamboo and cane in India make it an industry with high growth potential. The total bamboo bearing area of the country is half of the total reported area in Asia. However, India taps only 4% share of the global market mainly because of low productivity of 2 tonnes/ HA/ annum²³.

Increasing awareness, changing lifestyle, aesthetic appeal, cost advantages and demographic dividend are factors promoting the opportunity for further usage of Bamboo and Cane Furniture.

Rise of e commerce and online market has created opportunities for organized sector growth in bamboo furniture market, Indian consumer has accepted the online market and it is growing day by day. The economies of scale helps manufacturers produce more and transport the goods to other parts.

As per industry interactions, the current market size is approximately 500 crore. The market is dominated by many small players across the country.

- Value chain



The value chain in bamboo furniture industry is similar to other segments' manufacturing setup and starts from the design phase followed by procurement /commercial, production and storage, and sales & distribution.

²³ https://ccsinternship.files.wordpress.com/2013/05/283_the-bamboo-industry-in-india_aniket-baksy1.pdf, NBM Reports-
<http://nbm.nic.in/Reports/NBMPCReport>, http://fsi.nic.in/uploads/documents/doc_1_micro_mission_document_on_bamboo.pdf,
primary interactions

Design phase includes the think thru to designing the furniture and in some manufacturing firms, also forms part of R&D division. Design could vary upon the usage w.r.t. home, office or contract furniture. The commercial phase includes the purchase of different kinds of bamboo ranging from *Strictus*, *Baccifera*, *Arundinacia*, *Hamiltonii*, *Tulda*, *Pallida* and other raw materials needed. This would include majorly roles of purchaser, raw material tester, and store keeper and so on.

Production phase is a major phase in the value chain and includes the work of preservation, drying, straightening, sizing and sanding, cutting, streaming, bending, coping, spraying and finishing. This would include the job roles of the cutter, bender, store keeper etc.

Post the production, there is sales which could be in the form of direct sales, retail sales or wholesale sales. These days companies are also adopting to e-retailing which is fast becoming a popular medium for sales especially in the Tier I and II cities. Job roles of sales executives and delivery installation executives are gaining importance in this phase.

- **Geographical spread**

Bamboo and Cane furniture locations include places where they are primarily grown like Assam, Meghalaya, Manipur, Nagaland, Orissa, Uttar Pradesh (Bareilly), Madhya Pradesh and Maharashtra. These are transported to states like Tamil Nadu, Maharashtra, and Andhra Pradesh/Telangana where furniture is manufactured.

- **Future growth**

The market for Bamboo furniture is spread across a large number of small and medium players across India. There is effort to organize the sector and there is huge opportunity for growth of the organised large players to flourish with the changing mind set of the society.

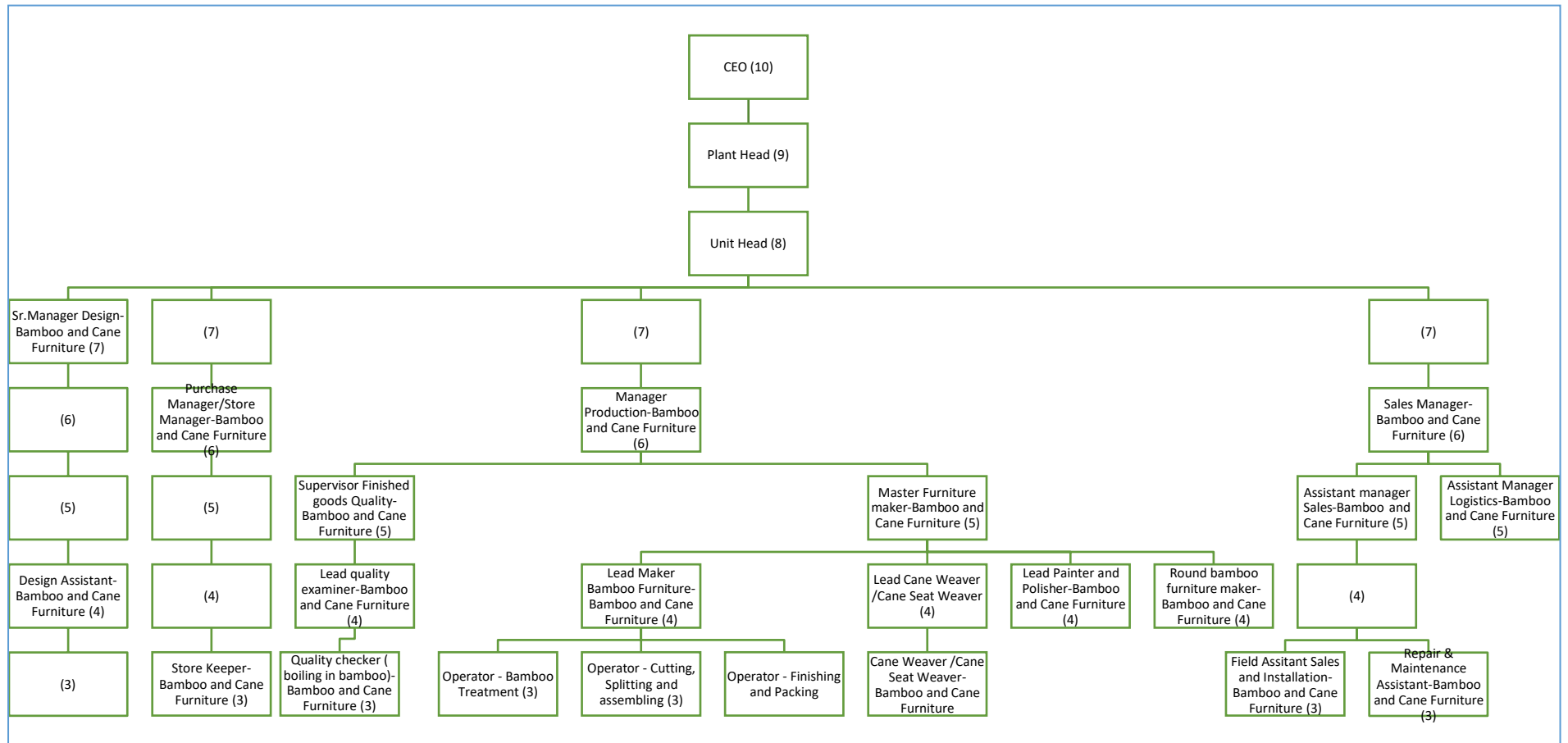
The major reasons which are attributable to the growth of the industry are:

- Changing Lifestyles
- Changes in consumer aspirations
- Increased awareness and increasing disposable incomes
- Entry of large players like Ikea into India which also open up the domestic and global market

The market for Furniture and Bamboo furniture is directly in proportion to the furniture industry. With the growth in furniture industry expected to be approximately 15%, the future market growth for bamboo furniture is favourable. It is likely to grow at the rate of 16% due to high expected growth in Bamboo production.

Price conscious consumers prefer cheaper alternate options to wooden furniture. The industry in this segment is competitive. The competitive nature of the market is also due to the rising transportation costs.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce. The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles

- Skill gap analysis
- *Methodology adopted*

Skill gap study conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players²⁴.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

²⁴ As per MSME classification <http://www.dcmsme.gov.in>

Step 3: Identification of unique job roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data analysis:

In this step, job role wise man power deployed in furniture industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at 16% taking into consideration the increased rate of the furniture demand in the country.

- *Unique Job Roles*

Referring to the workshops and conducting primary industry interactions, the following unique roles were identified:-

NSQF level	Bamboo and Cane Furniture - Job Roles
Level 7	Sr. Manager Design-Bamboo and Cane Furniture
Level 6	Purchase Manager/Store Manager-Bamboo and Cane Furniture
Level 6	Manager Production-Bamboo and Cane Furniture
Level 6	Sales Manager-Bamboo and Cane Furniture
Level 5	Supervisor Finished goods Quality-Bamboo and Cane Furniture
Level 5	Master Furniture maker-Bamboo and Cane Furniture
Level 5	Assistant manager Sales-Bamboo and Cane Furniture
Level 5	Assistant Manager Logistics-Bamboo and Cane Furniture
Level 4	Design Assistant-Bamboo and Cane Furniture
Level 4	Lead quality examiner-Bamboo and Cane Furniture
Level 4	Lead Maker Bamboo Furniture-Bamboo and Cane Furniture
Level 4	Lead Cane Weaver /Cane Seat Weaver
Level 4	Lead Painter and Polisher-Bamboo and Cane Furniture
Level 4	Round bamboo furniture maker-Bamboo and Cane Furniture
Level 3	Store Keeper-Bamboo and Cane Furniture
Level 3	Operator - Bamboo Treatment
Level 3	Operator - Cutting, Splitting and assembling
Level 3	Operator - Finishing and Packing
Level 3	Quality checker (boiling in bamboo)-Bamboo and Cane Furniture
Level 3	Cane Weaver /Cane Seat Weaver-Bamboo and Cane Furniture
Level 3	Field Assistant Sales and Installation-Bamboo and Cane Furniture
Level 3	Repair & Maintenance Assistant-Bamboo and Cane Furniture

- Demand forecast

It is estimated that there would be an approximate increase of approximately 10,000 jobs by the end of FY 22 and approximately 20,000 jobs by end of FY25 in the job roles. The following table provides the breakup between job roles from FY16 to FY25:

NSQF level	Bamboo / Cane Furniture - Job Roles	Current	Estimated Manpower		Gap	
		2016	2022	2025	2022	2025
Level 3	Field Assistant Sales and Installation-Bamboo and Cane Furniture	1375	3350	5229	1975	3854
Level 3	Operator - Cutting, Splitting and assembling	661	1610	2512	949	1852
Level 3	Operator - Bamboo Treatment	598	1457	2274	859	1676
Level 4	Lead Maker Bamboo Furniture-Bamboo and Cane Furniture	589	1434	2239	846	1650
Level 3	Cane Weaver /Cane Seat Weaver-Bamboo and Cane Furniture	585	1426	2226	841	1641
Level 3	Operator - Finishing and Packing	561	1366	2132	805	1572
Level 4	Lead Cane Weaver /Cane Seat Weaver	513	1251	1952	737	1439
Level 4	Round bamboo furniture maker-Bamboo and Cane Furniture	412	1004	1567	592	1155
Level 3	Store Keeper-Bamboo and Cane Furniture	379	923	1441	544	1062
Level 4	Lead Painter and Polisher-Bamboo and Cane Furniture	376	915	1429	540	1053
Level 6	Purchase Manager/Store Manager-Bamboo and Cane Furniture	267	651	1017	384	749
Level 6	Manager Production-Bamboo and Cane Furniture	267	651	1017	384	749
Level 6	Sales Manager-Bamboo and Cane Furniture	249	607	948	358	699
Level 5	Supervisor Finished goods Quality-Bamboo and Cane Furniture	249	607	948	358	699
Level 3	Quality checker (boiling in bamboo)-Bamboo and Cane Furniture	45	109	170	64	125
Level 4	Lead quality examiner-Bamboo and Cane Furniture	25	60	94	35	69
Level 7	Sr. Manager Design-Bamboo and Cane Furniture	21	52	81	31	60
Level 5	Master Furniture maker-Bamboo and Cane Furniture	21	52	81	31	60
Level 5	Assistant manager Sales-Bamboo and Cane Furniture	21	52	81	31	60
Level 5	Assistant Manager Logistics-Bamboo and Cane Furniture	21	52	81	31	60
Level 4	Design Assistant-Bamboo and Cane Furniture	21	52	81	31	60
Level 3	Repair & Maintenance Assistant-Bamboo and Cane Furniture	21	52	81	31	60
Total		7279	17735	27682	10456	20403

- **Manpower - organized Vs unorganized market:**

Basis our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Bamboo and Cane Furniture - Job Roles	2016 Manpower	Organized	Unorganized
Level 3	Field Assistant Sales and Installation-Bamboo and Cane Furniture	1375	99	1276
Level 3	Operator - Cutting, Splitting and assembling	661	144	516
Level 3	Operator - Bamboo Treatment	598	106	492
Level 4	Lead Maker Bamboo Furniture-Bamboo and Cane Furniture	589	60	529
Level 3	Cane Weaver /Cane Seat Weaver-Bamboo and Cane Furniture	585	57	529
Level 3	Operator - Finishing and Packing	561	104	456
Level 4	Lead Cane Weaver /Cane Seat Weaver	513	33	480
Level 4	Round bamboo furniture maker-Bamboo and Cane Furniture	412	93	319
Level 3	Store Keeper-Bamboo and Cane Furniture	379	28	351
Level 4	Lead Painter and Polisher-Bamboo and Cane Furniture	376	24	351
Level 6	Purchase Manager/Store Manager-Bamboo and Cane Furniture	267	21	246
Level 6	Manager Production-Bamboo and Cane Furniture	267	21	246
Level 6	Sales Manager-Bamboo and Cane Furniture	249	15	234
Level 5	Supervisor Finished goods Quality-Bamboo and Cane Furniture	249	15	234
Level 3	Quality checker (boiling in bamboo)-Bamboo and Cane Furniture	45	33	12
Level 4	Lead quality examiner-Bamboo and Cane Furniture	25	13	12
Level 7	Sr. Manager Design-Bamboo and Cane Furniture	21	9	12
Level 5	Master Furniture maker-Bamboo and Cane Furniture	21	9	12
Level 5	Assistant manager Sales-Bamboo and Cane Furniture	21	9	12
Level 5	Assistant Manager Logistics-Bamboo and Cane Furniture	21	9	12
Level 4	Design Assistant-Bamboo and Cane Furniture	21	9	12
Level 3	Repair & Maintenance Assistant-Bamboo and Cane Furniture	21	9	12
	TOTAL	7279	923	6356

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

9. Architectural Fittings -Doors/Windows

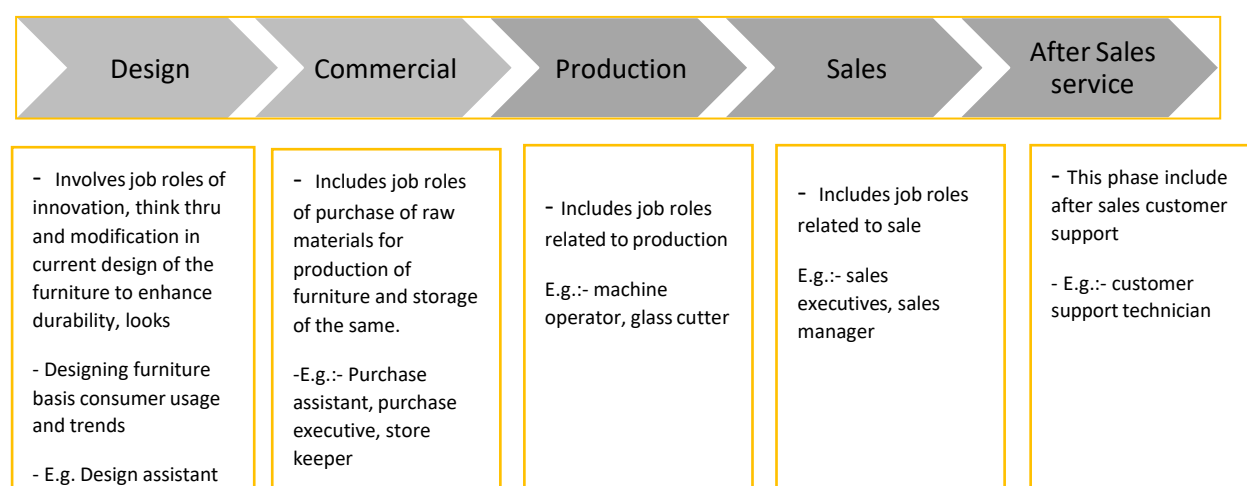
- About the sector

The architectural fittings i.e., doors/windows market in India is approximately Rs. 15000 crore²⁵ and market is growing at a rate of 10% CAGR²⁶. uPVC doors have 5.8% share of market and growing at a rate of 60% CAGR.

Architectural fittings market is largely dominated by unorganized sector and growth of organized sector has two main barriers, of price conscious customers and lack of awareness of variety of doors and other advance technologies used in doors/windows manufacturing.

Glass doors are mainly used in industries and institutions. Majority of individual households still have preference for wooden doors.

- Value chain



Value chain of Architectural fittings i.e., doors /windows industry is similar to other sectors and has five stages starts from the design phase followed by procurement /commercial, production and sales & distribution and after sales services

Design phase involve innovation and involve traditional as well as current technical knowledge to compete in market with better design. Designer study the consumer preferences and current trends in market to attract customers.

The commercial phase includes the purchase of raw material, hardware's and equipment's involved in manufacturing of doors and windows, major role for this stage are purchase manager, store keeper etc.

²⁵ Industry interaction , Report- [Building interior sector in India -Switzerland global enterprises,2014](#)

²⁶ Industry interaction , Report- [Building interior sector in India -Switzerland global enterprises,2014](#)

Production phase in doors and windows involve job like cutting, moulding, joinery, carpentry for. In this segment, jobs would involve both onsite and offsite work.

After sales services involve repair and maintenance, customer grievances redressal and providing after sales support to increase satisfaction level of customers.

- Geographical spread

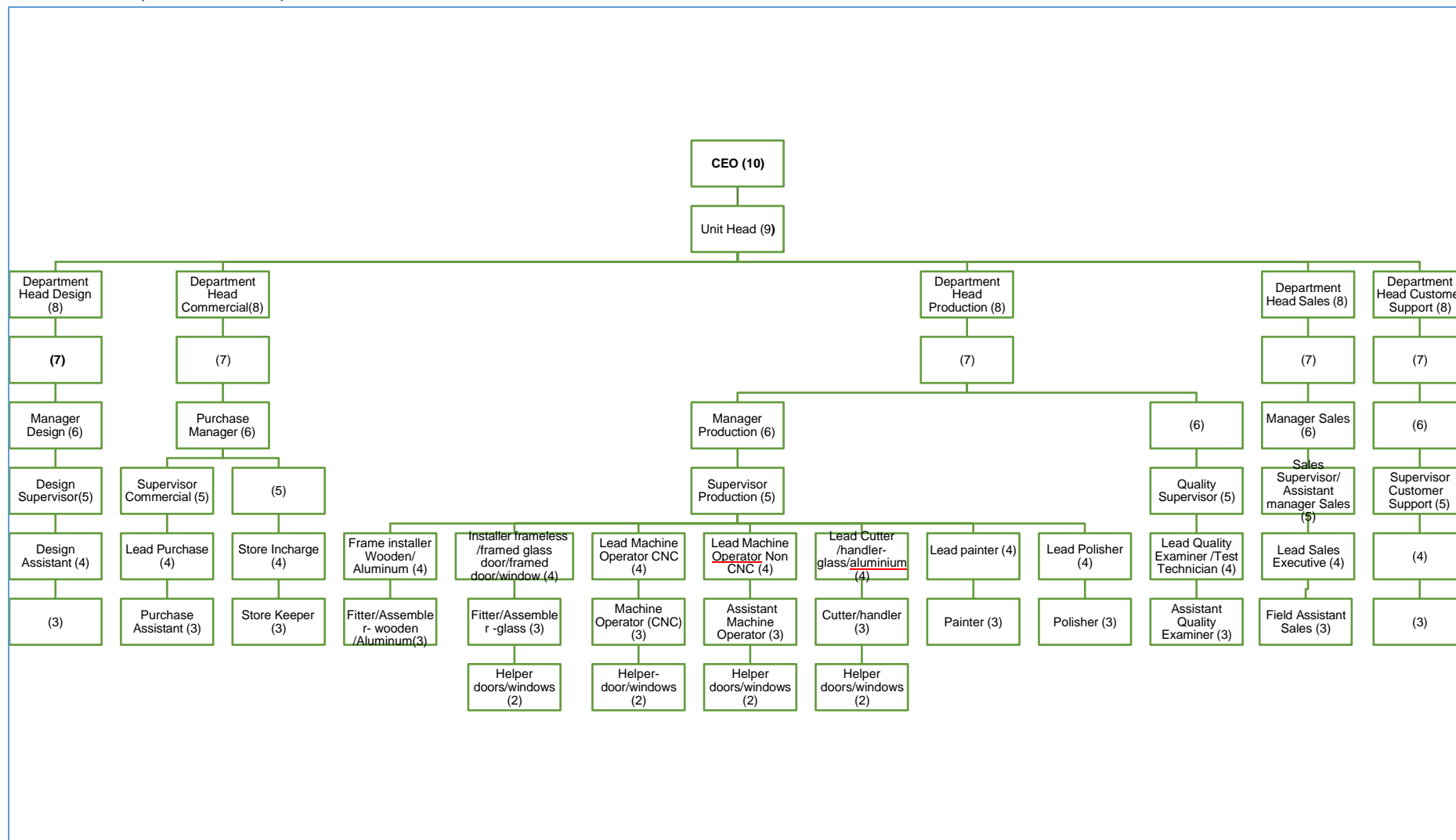
Architectural fittings market i.e., doors/windows in India is distributed all over India and due to its direct linkage to the construction industry especially in metros and tier 1 and tier 2 cities.

- Future growth

Architectural fittings market i.e., doors/windows is growing at the rate of 10% CAGR²⁷ and expected to reach Rs.26000 crore in 2022 and cross the Rs.35000 crore in 2025. The market is largely unorganized with the presence of several indigenous and small players. One of the main drivers for growth is the development of the residential construction sector in the country because of which there is an eminent rise in demand along with increasing disposable income among households.

²⁷ Report- [Building interior sector in India -Switzerland global enterprises,2014](#)

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce
 The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles

- Skill gap analysis

- *Methodology adopted*

Skill gap study conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players²⁸. Further, the production in this segment is machine capacity based and thus, the average turnover for small companies is on the higher side.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

²⁸ As per MSME classification <http://www.dcmsme.gov.in>

Step 3: Identification of unique job roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data analysis:

In this step, job role wise man power deployed in door/windows industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at the rate of 10% CAGR considering the market growth potential.

- *Unique job roles*

These are the job roles identified with the help of input provide by companies in industry.

NSQF level	Doors/Windows - Job Roles
level 6	Purchase Manager- Doors/Windows
level 6	Manager Production- Doors/Windows
level 6	Manager Sales- Doors/Windows
level 6	Manager Design- Doors/Windows
level 5	Design Supervisor- Doors/Windows
level 5	Quality Supervisor- Doors/Windows
level 5	Supervisor Commercial- Doors/Windows
level 5	Supervisor Production- Doors/Windows
level 5	Sales Supervisor/Assistant Manager Sales- Doors/Windows
level 5	Supervisor Customer Support- Doors/Windows
level4	Design Assistant- Doors/Windows
Level 4	Lead Machine Operator Non CNC- Doors/Windows
level4	Lead Machine Operator CNC- Doors/Windows
level 4	Lead Quality Examiner/Test Technician- Doors/Windows
level4	Store In charge - Doors/Windows
level4	Lead Purchase- Doors/Windows
level4	Frame Installer- Wooden/Aluminium- Doors/Windows
level4	Installer- Frameless/Framed Glass Door/Framed Door- Doors/Windows
level 4	Lead Cutter /Handler-Glass/Aluminium- Doors/Windows
level 4	Lead Painter- Doors/Windows
level 4	Lead Polisher-- Doors/Windows

level 4	Lead Sales Executive-- Doors/Windows
level 3	Store Keeper - Doors/Windows
level 3	Cutter/Handler- Doors/Windows
level 3	Assistant Quality Examiner- Doors/Windows
level 3	Fitter/Assembler- Glass-Doors/Windows
level 3	Fitter Assembler Wooden/Aluminium- Doors/Windows
level 3	Machine Operator (CNC)- Doors/Windows
level 3	Purchase Assistant- Doors/Windows
level 3	Assistant Machine Operator - Doors/Windows
level 3	Painter - Doors/Windows
level 3	Polisher- Doors/Windows
level 3	Field Assistant Sales- Doors/Windows
level 2	Helper- Doors/Windows

- *Demand forecast*

It is estimated that there would be an approximate increase of 1.85 lakhs jobs by the end of FY 22 and 3.25 lakhs jobs by end of FY25 in the architectural fittings industry for the job roles. The following table provides the breakup between job roles from FY16 to FY25:

NSQF Level	Job Roles	Current	Estimation Manpower		Gap	
		2016	2022	2025	2022	2025
level 4	Lead Sales Executive-- Doors/Windows	30270	53625	71375	23355	41105
level 4	Lead Cutter /Handler-Glass/Aluminium- Doors/Windows	25718	45560	60641	19843	34923
level 3	Fitter/Assembler-Glass-Doors/Windows	18377	32555	43331	14179	24954
level 3	Fitter Assembler Wooden/Aluminium - Doors/Windows	18162	32175	42825	14013	24663
level 2	Helper- Doors/Windows	15969	28290	37654	12321	21685
level4	Installer- Frameless/Framed Glass Door/Framed Door- Doors/Windows	13395	23730	31585	10335	18190
level 4	Lead Painter- Doors/Windows	13181	23350	31079	10170	17898
level 3	Painter - Doors/Windows	13181	23350	31079	10170	17898
level4	Design Assistant- Doors/Windows	12323	21830	29056	9508	16733
level 3	Machine Operator (CNC)- Doors/Windows	11894	21070	28044	9177	16151
level 3	Field Assistant Sales- Doors/Windows	8414	14905	19839	6492	11425
level 3	Assistant Machine Operator - Doors/Windows	7985	14145	18827	6161	10843
level 4	Lead Polisher-- Doors/Windows	7770	13765	18321	5995	10551
level4	Lead Purchase- Doors/Windows	7127	12625	16804	5499	9677
level 5	Design Supervisor- Doors/Windows	6698	11865	15792	5168	9095
level 4	Lead Quality Examiner/Test Technician- Doors/Windows	6483	11485	15287	5002	8802
level 4	Lead Machine Operator Non CNC- Doors/Windows	2360	4180	5564	1820	3204

level 5	Sales Supervisor/Assistant Manager Sales- Doors/Windows	2145	3800	5058	1655	2913
level4	Lead Machine Operator CNC- Doors/Windows	2145	3800	5058	1655	2913
level4	Frame Installer- Wooden/Aluminium- Doors/Windows	2145	3800	5058	1655	2913
level 3	Polisher- Doors/Windows	1931	3420	4552	1489	2622
level 3	Store Keeper - Doors/Windows	1716	3040	4046	1324	2330
level 5	Supervisor Production- Doors/Windows	1502	2660	3540	1158	2039
level4	Store In charge - Doors/Windows	1287	2280	3035	993	1748
level 6	Manager Sales- Doors/Windows	1073	1900	2529	827	1456
level 6	Manager Design- Doors/Windows	1073	1900	2529	827	1456
level 3	Cutter/Handler - Doors/Windows	1073	1900	2529	827	1456
level 3	Purchase Assistant- Doors/Windows	1073	1900	2529	827	1456
level 5	Quality Supervisor- Doors/Windows	644	1140	1517	496	874
level 5	Supervisor Commercial- Doors/Windows	644	1140	1517	496	874
level 5	Supervisor Customer Support- Doors/Windows	644	1140	1517	496	874
level 6	Purchase Manager- Doors/Windows	429	760	1012	331	583
level 6	Manager Production- Doors/Windows	429	760	1012	331	583
level 3	Assistant Quality Examiner- Doors/Windows	429	760	1012	331	583
Total		239679	424606	565151	184927	325472

- **Manpower - organized Vs unorganized market:**

Basis our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Job Roles	2016 Manpower	Organized	Unorganized
level 4	Lead Sales Executive-- Doors/Windows	30270	1287	28983
level 4	Lead Cutter /Handler-Glass/Aluminium- Doors/Windows	25718	1931	23787
level 3	Fitter/Assembler- Glass-Doors/Windows	18377	901	17476
level 3	Fitter Assembler Wooden/Aluminium - Doors/Windows	18162	772	17390
level 2	Helper- Doors/Windows	15969	2831	13138
level4	Installer- Frameless/Framed Glass Door/Framed Door- Doors/Windows	13395	1287	12108
level 4	Lead Painter- Doors/Windows	13181	1158	12022
level 3	Painter - Doors/Windows	13181	1158	12022
level4	Design Assistant- Doors/Windows	12323	644	11679
level 3	Machine Operator (CNC)- Doors/Windows	11894	386	11507
level 3	Field Assistant Sales- Doors/Windows	8414	1673	6740
level 3	Assistant Machine Operator - Doors/Windows	7985	1416	6569

level 4	Lead Polisher-- Doors/Windows	7770	1287	6483
level4	Lead Purchase- Doors/Windows	7127	901	6226
level 5	Design Supervisor- Doors/Windows	6698	644	6054
level 4	Lead Quality Examiner/Test Technician- Doors/Windows	6483	515	5968
Level 4	Lead Machine Operator Non CNC- Doors/Windows	2360	1416	944
level 5	Sales Supervisor/Assistant Manager Sales- Doors/Windows	2145	1287	858
level4	Lead Machine Operator CNC- Doors/Windows	2145	1287	858
level4	Frame Installer- Wooden/Aluminium- Doors/Windows	2145	1287	858
level 3	Polisher- Doors/Windows	1931	1158	772
level 3	Store Keeper - Doors/Windows	1716	1030	686
level 5	Supervisor Production- Doors/Windows	1502	901	601
level4	Store In charge - Doors/Windows	1287	772	515
level 6	Manager Sales- Doors/Windows	1073	644	429
level 6	Manager Design- Doors/Windows	1073	644	429
level 3	Glass Cutter- Doors/Windows	1073	644	429
level 3	Purchase Assistant- Doors/Windows	1073	644	429
level 5	Quality Supervisor- Doors/Windows	644	386	257
level 5	Supervisor Commercial- Doors/Windows	644	386	257
level 5	Supervisor Customer Support- Doors/Windows	644	386	257
level 6	Purchase Manager- Doors/Windows	429	257	172
level 6	Manager Production- Doors/Windows	429	257	172
level 3	Assistant Quality Examiner- Doors/Windows	429	257	172
	Total	239679	32432	207247

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

10. Modular Furniture

- About the sector

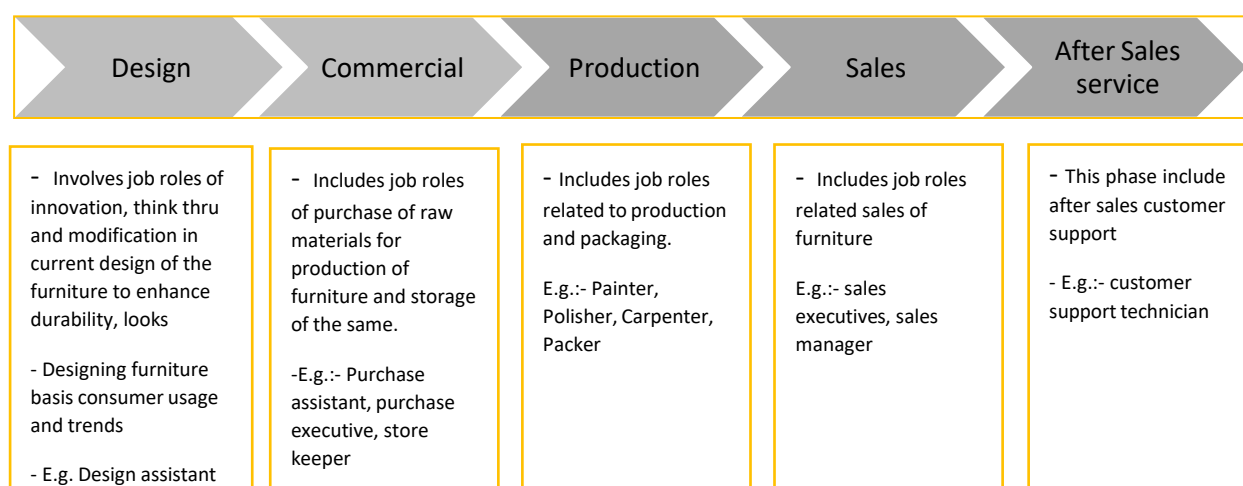
A modular fitting is basically a range of fixtures and cabinets put together in a planned manner, so as to make daily tasks easier. Modular furniture provide low space high utility for house space whether it is wardrobe, bedroom furniture or dining hall and kitchen. Most popular section of modular furniture is modular kitchen.

Modular kitchens are equipped with built-in covered baskets, washbasin, and kitchen appliances such as dishwasher, chimney, cooking range/stove, and microwave oven. They are usually designed to suit the customer's preference as per the space available in the home. Customers have a variety of options, features, colours and patterns to choose from.

The current estimation of modular furniture market in India is approximately Rs. 6800 crore²⁹ and it has been growing at a rapid rate. The market is expected to grow at a CAGR of 50%³⁰ in coming years.

Modular furniture sector's 70% share of market belongs to unorganized sector companies comprising of local carpenters and small regional vendors and 30% market is organized constituting of domestic and foreign vendors.

- Value chain



Value chain of modular fittings industry is similar to other sectors and has five stages starts from the design phase followed by procurement /commercial, production and storage and after sales services

²⁹ Industry Interaction, [Modular Kitchen Market in India 2015-2019](#), Technavio & [India modular Kitchen Industry report](#) 2015

³⁰ Industry Interaction, [Modular Kitchen Market in India 2015-2019](#), Technavio & [India modular Kitchen Industry report](#) 2015

Design phase involve innovation with space and available resources. Design process provide base for modular fitting market, without proper design modular fittings process is incomplete, designer considers the consumer preferences and current trends in market to attract customers.

The commercial phase includes the purchase of furniture, hardware's, equipment's for modular fitting, major role for this stage are purchase manager, store keeper etc.

Production phase in modular fittings involve various fittings preparation, cabinet, drawer making, space management etc., jobs involve onsite and offsite work.

After sales services involve repair and maintenance, customer grievances redressal and providing after sales support to increase satisfaction level of customers.

- Geographical spread

Modular furniture market in India majorly belongs to metro cities like Delhi, Mumbai, Hyderabad, Bengaluru, Chandigarh, Hyderabad, Kolkata, Pune etc. but due to increase in nuclear families and real estate growth in tier 1 tier 2 cities, market is expanding and expected to grow at faster rate.

Modular furniture demand calculation is based on region wise housing needs in urban areas of India³¹. Currently north and south region have higher demand and almost in equal percentage (29% and 28%) similarly western and eastern region have demand of (22% and 21%) of overall demand of modular furniture.

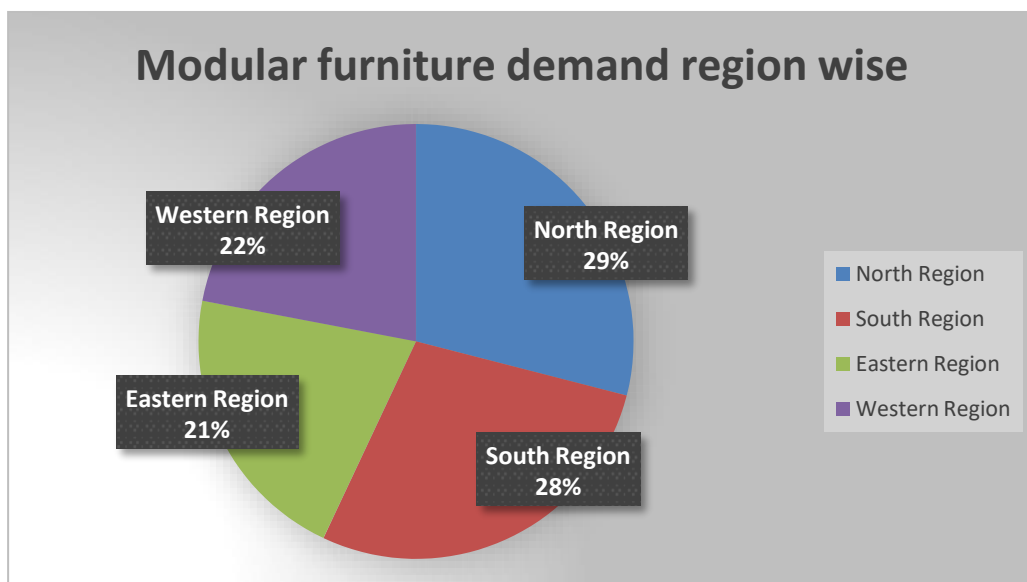


Figure 8: Modular furniture demand region wise

³¹ Reference KPMG report- [Decoding Housing](#) for all by 2022.

- Future growth

Modular furniture market is growing at the rate of 50% CAGR and expected to grow with this rate till 2019 and considering saturation level in market at latter stage, market growth is expected to be ~ 25% CAGR till 2025, by 2025 market will cross Rs. 87000 crore.

The market is largely unorganized with the presence of several indigenous and small players. The modular kitchen market in India has many growth drivers. One of the main drivers is the development of the residential construction sector in the country because of which there is an eminent rise in demand for customized modular fittings and kitchens. This has led to the growth of the modular market in India as a whole.

Despite the presence of impressive growth drivers, the growth of the modular kitchen market in India is curtailed by some growth inhibitors. One of the main challenges in this market are the high prices of branded modular kitchens because of which customers often opt for personalized designs offered by local carpenters, decreasing the market share of the organized players.

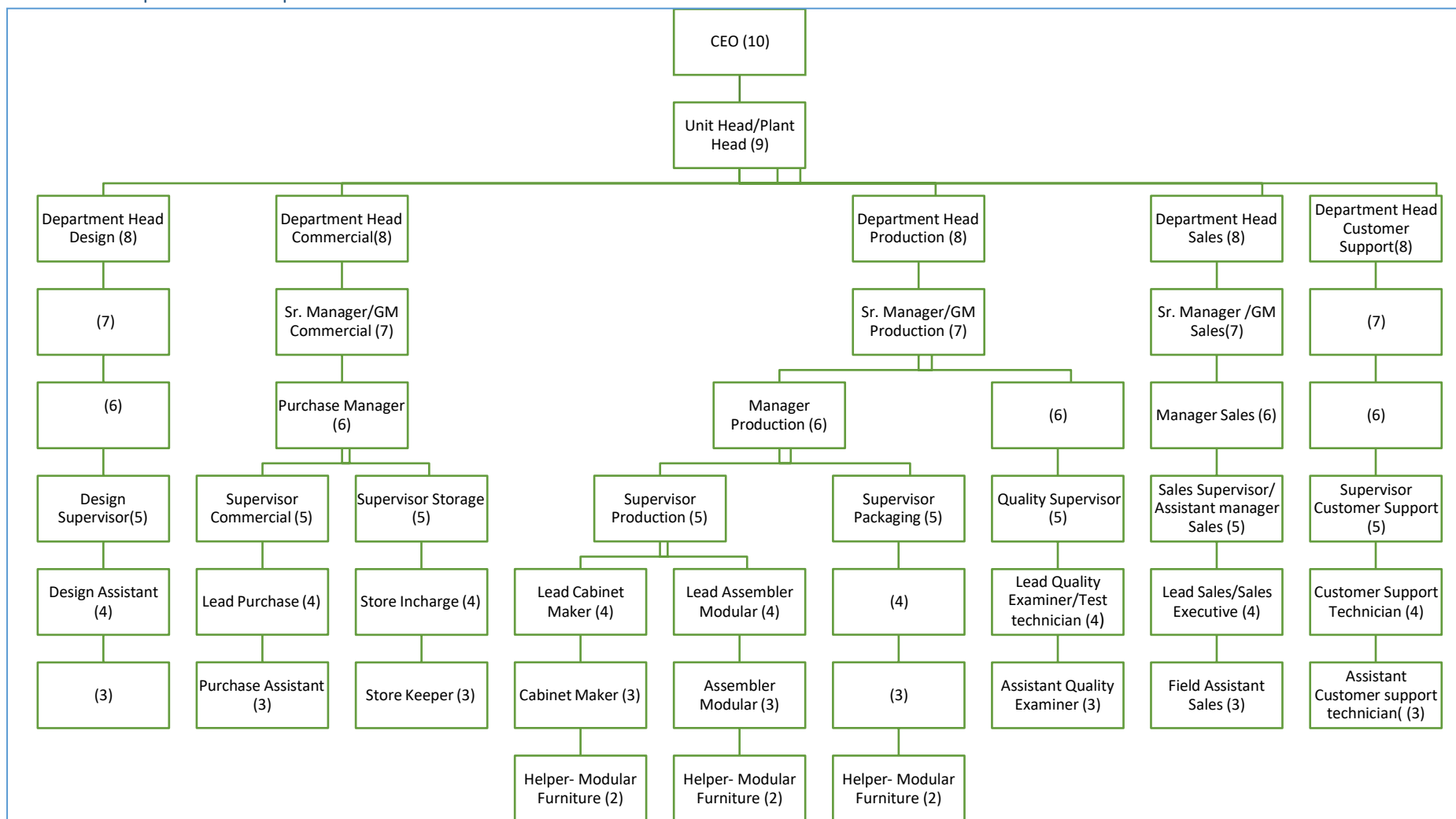
The other major reasons which are attributable to the growth of the industry are:

- Changing Lifestyles and increasing disposable income
- Increased construction activities
- Increased brand awareness

With the growth in modular industry expected to be approximately 50% CAGR till 2019 followed 25% CAGR till 2025, the future market growth for modular is highly favourable

A number of foreign players are entering the Indian markets via tie ups with Indian players or via setting up their subsidiaries giving a choice to Indian market. Companies from Italy and Germany are present in the Indian market and organized market is growing. Major players are Bulthaup, Franke, Häfele, Miele, Neoperl, Nolte, Peka, Poggenpohl, Veneta Cucine CC India, Häcker and Hettich etc.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce
 The occupational map prepared above has NOS for entrepreneurial activities at NSQF level 5 job roles

- Skill gap analysis

The following is skill gap for the sector.

- *Methodology adopted*

Skill gap study of modular fittings industry conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players³².

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

³² As per MSME classification <http://www.dcsmse.gov.in>

Step 3: Identification of unique job roles:

Post the preparation of the occupational map and basis inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data analysis:

In this step, job role wise man power deployed in furniture industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

The growth rate of manpower for FY 22 and FY 25 is considered at 40% till 2019 followed by 20% CAGR till 2025 taking into consideration the increase rate of the furniture demand in the country.

- *Unique job roles*

These are the job roles identified with the help of inputs provided by companies.

NSQF level	Modular Furniture - Job Roles
level 7	Sr. Manager /GM Commercial–Modular Furniture
level 7	Sr. Manager/GM Production –Modular Furniture
level 7	Sr. Manager/GM Sales–Modular Furniture
level 6	Purchase Manager–Modular Furniture
level 6	Manager Production–Modular Furniture
level 6	Manager Sales–Modular Furniture
level 5	Supervisor Commercial–Modular Furniture
level 5	Supervisor Storage–Modular Furniture
level 5	Supervisor Production–Modular Furniture
level 5	Quality Supervisor- Modular Furniture
level 5	Supervisor Packaging–Modular Furniture
level 5	Design Supervisor –Modular Furniture
level 5	Sales Supervisor/Assistant Manager Sales–Modular Furniture
level 5	Supervisor Customer Support–Modular Furniture
level 4	Design Assistant–Modular Furniture
level 4	Store In charge –Modular Furniture
level 4	Lead Purchase–Modular Furniture
level 4	Lead Quality Examiner/Test Technician- Modular Furniture
level 4	Lead Sales/Executive sales–Modular Furniture
level 4	Lead Cabinet Maker–Modular Furniture
level 4	Customer Support Technician–Modular Furniture

level4	Lead Assembler-Modular–Modular Furniture
level 3	Assistant Customer Support Technician–Modular Furniture
level 3	Store Keeper –Modular Furniture
level 3	Assistant Quality Examiner- Modular Furniture
level 3	Purchase Assistant–Modular Furniture
level 3	Assembler-Modular–Modular Furniture
level 3	Cabinet Maker–Modular Furniture
level 3	Field Assistant Sales–Modular Furniture
level 2	Helper –Modular Furniture

- *Demand forecast*

It is estimated that there would be an approximate increase of 18.5 lacs jobs by the end of FY 22 and 35.6 lacs jobs by end of FY25 in the modular fitting industry. The following table provides the breakup between job roles from FY16 to FY25:

NSQF Level	Job Roles -Modular Furniture	Current	Estimated manpower		Gap	
		2016	2022	2025	2022	2025
level4	Lead Cabinet Maker–Modular Furniture	102901	487919	843123	385018	740222
level 3	Assembler-Modular–Modular Furniture	93243	442124	763990	348881	670747
level4	Lead Sales/Executive sales–Modular Furniture	68183	323299	558660	255116	490477
level 3	Cabinet Maker–Modular Furniture	54855	260102	449457	205247	394602
level 2	Helper –Modular Furniture	46969	222710	384842	175741	337873
level4	Lead Assembler-Modular–Modular Furniture	31091	147422	254745	116331	223654
level 5	Sales Supervisor/Assistant Manager Sales–Modular Furniture	22696	107618	185963	84921	163267
level 5	Supervisor Production–Modular Furniture	13700	64962	112254	51262	98554
level4	Store In charge –Modular Furniture	13115	62188	107461	49073	94346
level4	Design Assistant–Modular Furniture	12407	58829	101657	46422	89250
level 3	Store Keeper –Modular Furniture	10677	50626	87482	39949	76805
level 5	Design Supervisor –Modular Furniture	9816	46544	80428	36728	70612
level 5	Quality Supervisor- Modular Furniture	9799	46463	80288	36664	70489
level 3	Field Assistant Sales–Modular Furniture	1143	5420	9365	4277	8222
level 6	Manager Sales–Modular Furniture	803	3808	6579	3005	5776
level 3	Purchase Assistant–Modular Furniture	745	3533	6104	2788	5359
level 5	Supervisor Packaging–Modular Furniture	616	2921	5047	2305	4431
level 5	Supervisor Commercial–Modular Furniture	313	1484	2565	1171	2252
level 5	Supervisor Storage–Modular Furniture	313	1484	2565	1171	2252
level4	Lead Purchase–Modular Furniture	296	1404	2425	1108	2129
level 6	Purchase Manager–Modular Furniture	262	1242	2147	980	1885
Level4	Lead Quality Examiner/Test Technician-Modular Furniture	245	1162	2007	917	1762
level 6	Manager Production–Modular Furniture	228	1081	1868	853	1640

level4	Customer Support Technician–Modular Furniture	221	1048	1811	827	1590
Level 3	Assistant Customer Support Technician–Modular Furniture	204	967	1671	763	1467
level 5	Supervisor Customer Support–Modular Furniture	170	806	1393	636	1223
level 7	Sr. Manager/GM Sales–Modular Furniture	85	403	696	318	611
level 7	Sr. Manager/GM Production –Modular Furniture	51	242	418	191	367
level 7	Sr. Manager /GM Commercial–Modular Furniture	34	161	279	127	245
Level 3	Assistant Quality Examiner- Modular Furniture	34	161	279	127	245
Total		495216	2348132	4057572	1852916	3562356

- **Manpower - organized Vs unorganized market:-**

Basis our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Modular Furniture - Job Roles	2016 Manpower	Organized	Unorganized
level 4	Lead Cabinet Maker–Modular Furniture	102901	4002	98899
level 3	Assembler-Modular–Modular Furniture	93243	6761	86482
level4	Lead Sales/Executive sales–Modular Furniture	68183	2837	65346
level 3	Cabinet Maker–Modular Furniture	54855	4849	50006
level 2	Helper –Modular Furniture	46969	1206	45763
level4	Lead Assembler-Modular–Modular Furniture	31091	1988	29103
level 5	Sales Supervisor/Assistant Manager Sales–Modular Furniture	22696	405	22291
level 5	Supervisor Production–Modular Furniture	13700	774	12926
level4	Store In charge –Modular Furniture	13115	267	12849
level4	Design Assistant–Modular Furniture	12407	352	12055
level 3	Store Keeper –Modular Furniture	10677	769	9908
level 5	Design Supervisor –Modular Furniture	9816	218	9598
level 5	Quality Supervisor- Modular Furniture	9799	201	9598
level 3	Field Assistant Sales–Modular Furniture	1143	910	233
level 6	Manager Sales–Modular Furniture	803	570	233
level 3	Purchase Assistant–Modular Furniture	745	590	155
level 5	Supervisor Packaging–Modular Furniture	616	383	233
level 5	Supervisor Commercial–Modular Furniture	313	235	78
level 5	Supervisor Storage–Modular Furniture	313	235	78
level4	Lead Purchase–Modular Furniture	296	218	78
level 6	Purchase Manager–Modular Furniture	262	184	78

level 4	Lead Quality Examiner/Test Technician- Modular Furniture	245	167	78
level 6	Manager Production–Modular Furniture	228	150	78
level 4	Customer Support Technician–Modular Furniture	221	221	0
level 3	Assistant Customer Support Technician– Modular Furniture	204	204	0
level 5	Supervisor Customer Support–Modular Furniture	170	170	0
level 7	Sr. Manager/GM Sales–Modular Furniture	85	85	0
level 7	Sr. Manager/GM Production –Modular Furniture	51	51	0
level 7	Sr. Manager /GM Commercial–Modular Furniture	34	34	0
level 3	Assistant Quality Examiner- Modular Furniture	34	34	0
Total		495216	29074	466142

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

11. Hardware Fittings

- About the sector

Fittings acts as a support to the furniture and complete the process of installation of furniture in Home / personal, Offices /Institutions and Hospitality and other sectors.

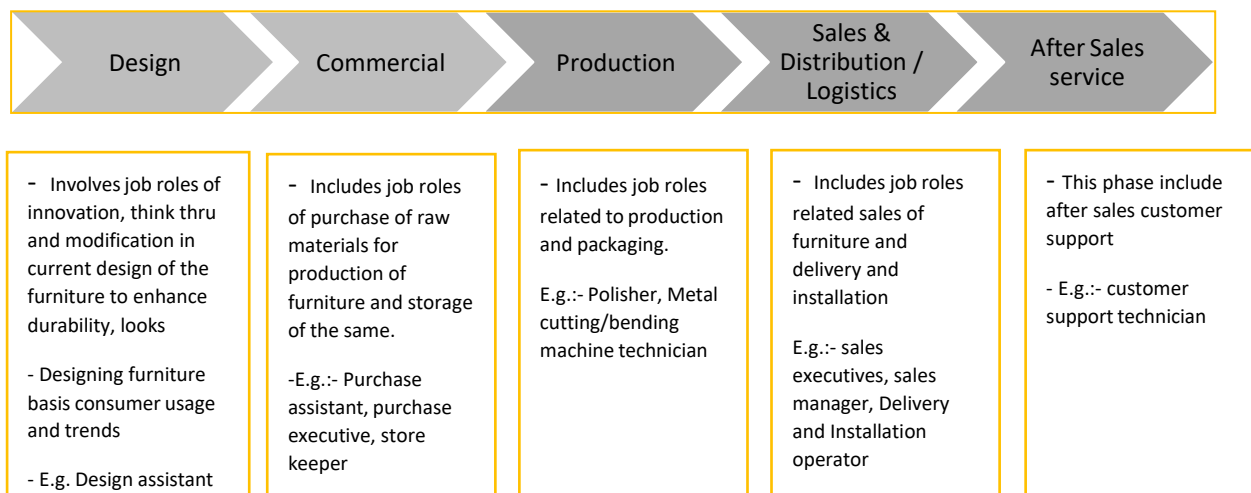
A furniture without hardware fittings is mere plank of wood/metal. Only when fitted with fittings like handles, locks and other accessories, it shall provide the functionality and the convenience. It is the mix of fittings that holds the furniture together.

Hardware fittings shall include the handles, knobs, hinges, flap fittings, bedroom furniture accessories, latches, glass product fittings, door seals/bolts, drawer runners, locks and other furniture and wardrobe fittings. Joinery would include various kinds of screws like handle fitting screw, head drill screws, cross nuts, connecting crews ,modular clip, table connector etc.

As per industry interactions, the current market size is approximately 5500 crore where in hardware fittings account for approx. 2500 cr and locks approximately 3000 cr.

Major companies operating in this segment are Ebco, Doorset, Hafele, Hardwyn, Ozone, Godrej Locks, Harrison, Link locks, Dorset locks etc.

- Value chain



The value chain in hardware fittings industry is similar to other segment manufacturing setup and starts from the design phase followed by procurement /commercial, production and storage, sales and distribution and after sales.

Design phase includes the think thru to designing the furniture and in some manufacturing firms, also forms part of R&D division. Design could vary upon the usage w.r.t. home, office or contract furniture. The commercial phase includes the purchase of metal ranging from steel, aluminium, brass, copper

etc. and other raw materials needed. This would include majorly roles of purchaser, raw material tester, and store keeper and so on.

Production phase is a major phase in the value chain and includes the work of processing, assembling, finishing and storage of the fittings manufactured. This would include the job roles of the welder, cutting machine operator, polisher, assembler, presser etc.

Post the production and distribution, there is sales which could be in the form of direct sales, retail sales or wholesale sales. These days companies are also adopting to e-retailing which is fast becoming a popular medium for sales especially in the Tier I and II cities. Job roles of sales executives and delivery installation executives are gaining importance in this phase. Followed by sales is the after sales service division which has gained momentum in the last decade especially with increased focus on customer satisfaction.

- **Geographical spread**

Hardware fittings cluster locations include Aligarh, Jamnagar, Delhi NCR, Maharashtra and Kolkata.

Aligarh is a major cluster for locks. Industry major's state that Aligarh is India's biggest lock making hub. Variety of locks options are available in market from the oldest mechanical – warded locks to padlocks to a more varied variety of mechanical locks like the tumbler locks to the recent ways of system driven access based security solutions. Some of the commonly found variety of locks are Pad lock, Dead bolts, Knob Locks, Lever Handle locks, Cam locks, Rim/Mortise locks, Cylinder locks, wall mounted locks, furniture/cabinet locks, Rim Latch locks, electronic locks etc.

- **Future growth**

The market for hardware fitting is majorly un-organised, but there is huge opportunity for players to flourish with the changing mind set of the society.

The major reasons which are attributable to the growth of the industry are:

- Changing Lifestyles
- Increased construction activities
- Increased brand awareness
- Increasing disposable incomes
- Consumer aspirations are changing along with increased demand for various kinds of furniture and fittings

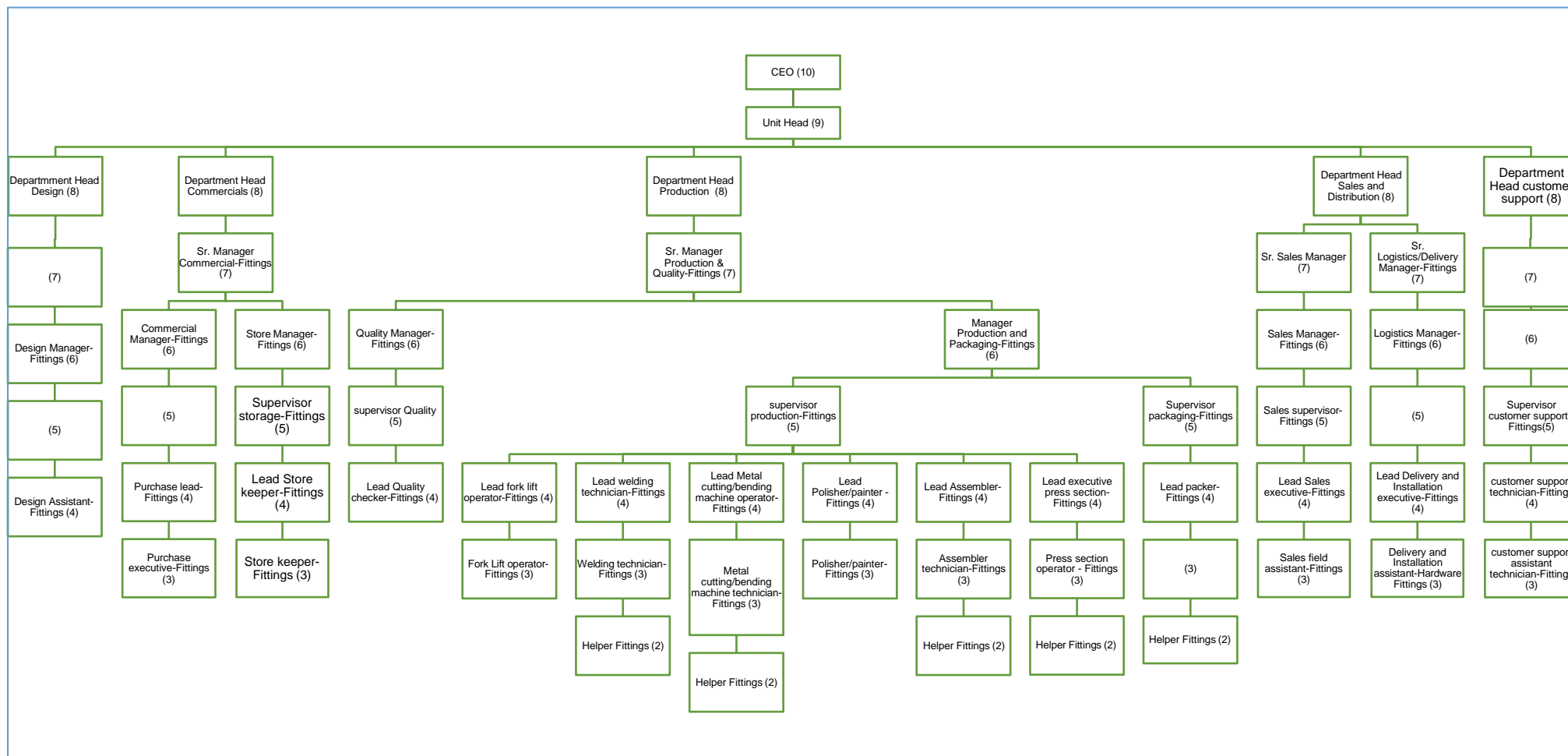
At the pace with which construction projects are being undertaken across the country, there is a huge increase in real estate sector, resulting in increase in the demand for furniture and fittings in the market. Consumers are more aware and educated about the importance of hardware in the building and are looking for high quality products. While, commercial clients want durable hardware that can withstand high usage, the homeowner want value for money as their homes are one-time investments. Thus, there is a lot of scope for providers of quality hardware in the country today.

The market for furniture fittings is directly in proportion to the furniture industry. With the growth in furniture industry expected to be approximately 15%, the future market growth for fittings is highly favourable.

Even though the market has been undergoing a considerable change over the last decade, the industry remains to be highly fragmented and competitive. The competitive nature of the market is also due to the rising imports penetration in the market.

A number of foreign players are entering the Indian markets via tie ups with Indian players or via setting up their subsidiaries giving a choice to Indian market. Further, Chinese imports have invaded the local markets giving tough competition to Indian players for price and some in quality too. Indian players thus, need to keep themselves updated on technological manpower and also need skilled manpower to reduce costs.

- Occupational map



Two additional job roles identified as allied segments to this sector are Interior Designers and Delivery and Installation Assistant-Ecommerce
 The occupational map prepared above have NOS for entrepreneurial activities at NSQF level 5 job roles

- Skill gap analysis
- *Methodology adopted*

Skill gap study conducted in following steps:

Step 1: Stakeholder interaction and data collection

In the first phase, extensive stakeholder interactions have been carried out through workshops and one to one interactions to understand the manpower deployment pattern and key trends in the industry. Detailed data collection formats were shared with companies. A number of responses were received with varying levels of details. While some entities provided detailed job role specific data, other shared integrated data.

Through workshops, primary interactions with industry and secondary research, overall market size was determined. Further, inputs were gained on the market share distribution and the average turnover between small, medium and large players³³.

Step 2: Preparation of Occupational Map (OM)

During workshops and interactions, inputs were gathered on the various job roles present in the industry and were mapped against the National Skills Qualification Framework (NSQF levels). On the basis of the inputs received, occupational map was prepared representing the various job roles ranging between the levels of 2 to 10. A brief description of the varied NSQF levels is given below:

NSQF level	Description about the levels
10	CEO
9	Unit head
8	Department Head
7	Senior Manager level
6	Manager level
5	Can work independently e.g. supervisor production
4	Has the required skill to perform a job end to end but would still need to work under a supervisor. e.g.: Lead carpenter
3	Has the required skill to perform a job but would need constant supervision and guidance. e.g.: Assistant carpenter
2	Semi -skilled worker Eg: Helper , industrial production worker
1	Unskilled labor

³³ As per MSME classification <http://www.dcmsme.gov.in>

Step 3: Identification of Unique Job Roles:

Post the preparation of the occupational map and basis the inputs from the workshop pertaining to present man power deployment, unique job roles were identified.

Step 4: Data Analysis:

In this step, job role wise man power deployed in the industry used as basis to arrive at current deployment in the industry and estimates drawn for FY22 and FY25.

- *Assumptions for estimation*

Growth rate of manpower for FY 22 and FY 25 is considered at 12% taking into consideration the increase rate of the furniture demand in the country and increase in the efficiencies both technological and manpower based.

- *Unique job roles*

Referring to the workshops and conducting primary industry interactions, the following unique roles were identified:-

NSQF level	Hardware Fittings - Job Roles
level7	Sr. Manager Production & Quality-Fittings
level7	Sr. Manager Commercial-Fittings
level7	Sr. Sales Manager -Fittings
level7	Sr. Logistics/Delivery Manager-Fittings
level6	Quality Manager-Fittings
level6	Design Manager-Fittings
level6	Commercial Manager-Fittings
level6	Manager Production and Packaging-Fittings
level6	Store Manager-Fittings
level6	Sales Manager-Fittings
level6	Logistics Manager-Fittings
level5	Supervisor storage-Fittings
level5	Supervisor packaging-Fittings
level5	Supervisor Quality-Fittings
level5	Supervisor production-Fittings
level5	Sales supervisor-Fittings
level5	Supervisor customer support-Fittings
level4	Lead Store keeper-Fittings
level4	Design Assistant-Fittings
level4	Purchase lead-Fittings

level4	Lead fork lift operator-Fittings
level4	Lead welding technician-Fittings
level4	Lead Metal cutting/bending machine operator-Fittings
level4	Lead Polisher/Painter-Fittings
level4	Lead Quality checker-Fittings
level4	Lead Assembler-Fittings
level4	Lead executive press section-Fittings
level4	Lead Sales executive-Fittings
level4	Lead Delivery and Installation executive-Fittings
level4	Customer support technician-Fittings
level4	Lead packer-Fittings
level3	Store keeper-Fittings
level3	Purchase executive-Fittings
level3	Fork Lift operator-Fittings
level3	Welding technician-Fittings
level3	Metal cutting/bending machine technician-Fittings
level3	Polisher/Painter-Fittings
level3	Assembler technician-Fittings
level3	Press Section operator-Fittings
level3	Sales field assistant-Fittings
level3	Delivery and Installation assistant-Fittings
level3	Customer support assistant technician-Fittings
level2	Helper-Fittings

- *Demand forecast*

It is estimated that there would be an approximate increase of 2 lacs jobs by the end of FY 22 and 3.65 lacs jobs by end of FY25 in the industry employment. The following table provides the breakup between job roles from FY16 to FY25:

NSQF level	Hardware Fittings Furniture - Job Roles	Current	Estimated Manpower		Gap	
		2016	2022	2025	2022	2025
level4	Lead Assembler-Fittings	41429	81773	114886	40344	73457
level3	Sales field assistant-Fittings	21151	41749	58655	20598	37503
level4	Lead executive press section-Fittings	20826	41108	57753	20281	36927
level3	Delivery and Installation assistant-Fittings	17368	34280	48162	16913	30794
level5	Supervisor storage-Fittings	15978	31538	44308	15560	28330
level3	Polisher/Painter-Fittings	12078	23840	33494	11762	21416
level3	Metal cutting/bending machine technician-Fittings	10962	21637	30398	10675	19436
level6	Sales Manager-Fittings	10815	21348	29992	10532	19177
level6	Store Manager-Fittings	10453	20633	28987	10179	18534
level6	Commercial Manager-Fittings	10296	20322	28552	10026	18256

level3	Customer support assistant technician-Fittings	7994	15780	22169	7785	14175
level4	Lead Sales executive-Fittings	6788	13398	18823	6610	12035
level3	Welding technician-Fittings	6241	12320	17308	6078	11067
level2	Helper-Fittings	1482	2926	4111	1444	2628
level3	Assembler technician-Fittings	1412	2787	3915	1375	2503
level5	Supervisor production-Fittings	1353	2671	3753	1318	2399
level4	Lead welding technician-Fittings	1345	2655	3730	1310	2385
level4	Customer support technician-Fittings	1098	2166	3044	1069	1946
level5	Sales supervisor-Fittings	1040	2052	2883	1013	1844
level4	Lead Delivery and Installation executive-Fittings	911	1798	2527	887	1615
level4	Lead Polisher/Painter-Fittings	783	1546	2172	763	1389
level4	Lead packer-Fittings	571	1127	1583	556	1012
level3	Press Section operator-Fittings	440	868	1219	428	780
level3	Store keeper-Fittings	432	852	1197	420	765
level3	Purchase executive-Fittings	333	657	923	324	590
level7	Sr. Sales Manager -Fittings	245	484	680	239	435
level7	Sr. Logistics/Delivery Manager-Fittings	245	484	680	239	435
level6	Manager Production and Packaging-Fittings	245	484	680	239	435
level5	Supervisor customer support-Fittings	234	463	650	228	416
level7	Sr. Manager Production & Quality-Fittings	216	426	598	210	383
level4	Lead Store keeper-Fittings	216	426	598	210	383
level7	Sr. Manager Commercial-Fittings	186	368	517	182	331
level6	Design Manager-Fittings	186	368	517	182	331
level4	Lead Quality checker-Fittings	147	289	406	143	260
level6	Logistics Manager-Fittings	117	231	325	114	208
level5	Supervisor packaging-Fittings	117	231	325	114	208
level5	supervisor Quality-Fittings	117	231	325	114	208
level4	Design Assistant-Fittings	117	231	325	114	208
level3	Fork Lift operator-Fittings	117	231	325	114	208
level4	Purchase lead-Fittings	59	116	163	57	104
level4	Lead fork lift operator-Fittings	59	116	163	57	104
level4	Lead Metal cutting/bending machine operator-Fittings	59	116	163	57	104
level6	Quality Manager-Fittings	29	58	81	29	52
	Total	206293	407185	572065	200892	365773

- **Manpower - organized Vs unorganized market:**

On the basis of our research, given below is break-up of manpower in organized vs unorganized sector in the market.

NSQF level	Hardware Fittings Furniture - Job Roles	2016 Manpower	Organized	Unorganized
level4	Lead Assembler -Fittings	41429	284	41145
level3	Sales field assistant --Fittings	21151	2399	18752
level4	Lead executive press section-Fittings	20826	293	20533
level3	Delivery and Installation assistant-Fittings	17368	1614	15754
level5	Supervisor storage-Fittings	15978	421	15557
level3	Polisher/Painter-Fittings	12078	1419	10660
level3	Metal cutting/bending machine technician-Fittings	10962	538	10424
level6	Sales Manager-Fittings	10815	392	10424
level6	Store Manager-Fittings	10453	108	10345
level6	Commercial Manager-Fittings	10296	29	10267
level3	Customer support assistant technician-Fittings	7994	2075	5919
level4	Lead Sales executive-Fittings	6788	1340	5448
level3	Welding technician-Fittings	6241	715	5526
level2	Helper-Fittings	1482	1090	393
level3	Assembler technician-Fittings	1412	940	471
level5	Supervisor production-Fittings	1353	882	471
level4	Lead welding technician-Fittings	1345	717	629
level4	Customer support technician-Fittings	1098	783	314
level5	Sales supervisor-Fittings	1040	804	236
level4	Lead Delivery and Installation executive-Fittings	911	675	236
level4	Lead Polisher/Painter-Fittings	783	626	157
level4	Lead packer-Fittings	571	414	157
level3	Press Section operator-Fittings	440	440	0
level3	Store keeper-Fittings	432	274	157
level3	Purchase executive-Fittings	333	254	79
level7	Sr. Sales Manager-Fittings	245	167	79
level7	Sr. Logistics/Delivery Manager-Fittings	245	167	79
level6	Manager Production and Packaging-Fittings	245	167	79
level5	Supervisor customer support-Fittings	234	234	0
level 7	Sr. Manager Production & Quality-Fittings	216	137	79
level4	Lead Store keeper-Fittings	216	137	79

level7	Sr. Manager Commercial-Fittings	186	108	79
level6	Design Manager-Fittings	186	108	79
level4	Lead Quality checker-Fittings	147	147	0
level6	Logistics Manager-Fittings	117	117	0
level5	Supervisor packaging-Fittings	117	117	0
level5	Supervisor Quality-Fittings	117	117	0
level4	Design Assistant-Fittings	117	117	0
level3	Fork Lift operator-Fittings	117	117	0
level4	Purchase lead-Fittings	59	59	0
level4	Lead fork lift operator-Fittings	59	59	0
level4	Lead Metal cutting/bending machine operator-Fittings	59	59	0
level6	Quality Manager-Fittings	29	29	0
	Total	206293	21689	184604

It is estimated that in the forthcoming years with organised trade being more prevalent, there shall be a shift in the manpower from unorganised to organised segment.

12. Enablers to the Industry

The following sectors are enablers to the furniture industry and have contributed to the growth of the segment.

1. Adhesives

- About the sector

India adhesives market has recorded strong growth during the period FY'2010-FY'2015 and is expected to sustain its rapid growth during the next five years. The India adhesives market has witnessed a growth in recent years on account of rising demand from major allied industries for adhesives including packaging, woodworking and construction industry.

The Indian adhesives market size is approx. Rs 66 bn³⁴ in 2015. The industry is expected to grow every year at a CAGR of ~6%. Taking this into consideration, the market for adhesives is approx. Rs 69 Bn. It is expected that the India adhesives market will grow at a considerable CAGR rate reaching INR 88 billion by FY'2020.³⁵ The laminates and furniture industry applications account for approx. 8% of the Indian adhesive market.³⁶

On basis of applications of adhesives in India, the major segments are:

- Packaging
- Construction
- Automobiles
- Laminates and furniture
- Footwear
- Consumers

On basis of end users, the industry is bifurcated into industrial and consumers segment. The application of industrial adhesives includes packaging, building and construction, footwear, furniture and automotive industries.

Pidilite has been enjoying a leadership positioning with over 50% market share in Indian adhesives market. Apart from Pidilite, other noticeable players in the industry are 3M India, Henkel, Anabond, HB fuller, Jubilant Industries, Benson Polymers and others. Other global players are SIKA, Illinois Tool works, Bayer etc.

The various kinds of adhesives (on basis of technology):

- Water Based
- Solvent Based
- Hot Melt
- Reactive

³⁴According to [Indian Adhesives Market Outlook to 2020 – Ken Research,2015](#)

³⁵ According to [Indian Adhesives Market Outlook to 2020 – Ken Research,2015](#)

³⁶ According to [Indian Adhesives Market Outlook to 2020 – Ken Research,2015](#)

- Future growth

India has been witnessing steady growth in majority of industries. The growth in the industrial sector in India shall serve as a client for the adhesives market.

It is expected that with the growth in the furniture industry at approx. 15%, the usage of adhesives shall also increase in this segment signalling a positive growth. It is believed that furniture segment shall be a major contributor to the growth of the Adhesives market in India.

2. Tools and Equipments

- About the sector

According to 2016 Gardner Business Media survey, India stands 13th in production and 10th in the consumption of machine tools in the world. The country is set to become a key player in the global machine tools industry and is likely to see substantial high-end machine tool manufacturing³⁷.

Tools are of strategic importance to the furniture segment as well. Various tools and equipments are used in the furniture sector to provide the desired shape and size to reach the finished product. The usage of machines has become mandatory in the industry as the work has to be completed within the timelines given by the customer/clients. Machines are available in various forms, sizes and applications which can help you simplify your work

As per industry interactions, the wood working tools is expected to be about 900 Cr segment. It is expected that this sector shall grow ~15%-20%.

Wood working tools can be broadly classified into hand held tools and power tools.

Hand tools are not motorized, while power tools are motorised. Tools like screwdrivers, chisels, hammers fall under the category of hand tools, while tools like drills, circular saws, palm sanders, dremel tools, and routers fall under the category of power tools.

- Hand Tools

Traditionally, only hand tools were used by woodworkers. Woodworking equipment's were limited because electricity was not common at many workshops and also because of the expenses involved in acquiring the tools.

The market for hand tools is much localised with these tools being available in local shops, local vendors and is majorly unorganised.

³⁷ According to Indian Machine Tools Manufacturer's Association- <http://www.imtma.in/>

According to Development Commissioner (MSME) -Ministry of Micro, Small & Medium Enterprises (DCMSME) – hand tools major cluster is Jalandhar and Nagaur. This sector with a total investment of about Rs. 5000 million, employs an estimated 25000 workers³⁸.

The manufactured hand tools include hand tools hammer, screw driver, hand saws, pliers, chisel etc.

- Power Tools

Most modern woodworkers utilize a variety of power tools. Today's power tools are lightweight, fast and include a number of safety features that make work less time consuming.

Through the use of compressed air, electricity, or combustion, they allow those using them to complete jobs with more precision and within less time. Power tools can be divided into numerous categories including portability, power source, and purpose.

Some of the examples of power tools are: Circular saw, Jig Saws, Planner, Orbit Sander, Routers, Chain Saw, Sabre Saw, Table Saws, Impact Drills, Screw Driver, Circular Saw Blades, Sanding sheet machines etc.

Power tools usually come in one of two categories – stationary or portable. Stationary power tools are either large machines that are not easily moved or machines that must be tightly fastened to a stationary object in order to properly function. These machines include table saws, band saws, radial arm saws, and many more like drill press, bench grinder, wood lathe, and spindle moulder, radial arm saw, table saw, jointer and many others. These machines serve a variety of purposes for complete wood workings on the large scale.

Portable power tools can be easily carried from one location to another, and are usually light enough to be used. Stationary models usually have the advantages of precision, power, and smoothness; portable versions of versatility and travel. The handheld portable tools usually serve the more intricate purpose on the details of the wooden surface. These hand held machines are specifically designed to work on smaller wooden surfaces

The hand held tools include machines such as biscuit joiner, chain saw, nail gun, jig saw, rotary tool, router, electric drill and the hand held circular saw.

Major foreign players in power tools Homag, Felder, Bosch, Makita, DeWalt, Dremel, Black & Decker, Einhell Germany, Hitachi, Metabo, Skil, Altendorf, HolyTek, Festool etc.

Some of the Indian companies are Eastman Power Tools, Electrex, Endico, Japson, Planet Tools, Ralliwolf- Power Tools Marketing Limited, Stark- Power tools, Makita Tools etc.

³⁸ <http://www.dcmsme.gov.in/handtools/industry/profile.html>

- Future growth

With the growth in the economy, there is likely that there shall be positive growth for this segment also. Along with the increase in the furniture sector, there shall be increase in the demand for tools and equipment's as well to meet the customer expectations.

Several firms have entered the Indian machine tools sector, or announced plans for joint ventures or wholly owned subsidiaries in India. Industry experts say that the phenomenon is linked to the spurt in manufacturing.³⁹

As stated earlier, the market for wood working tools and equipment's is also expected to grow on similar lines of ~15%.

- Value chain

Tools and equipment's and adhesives are required in the whole of manufacturing industry. One of the applications of these, is in the furniture segment.

Without the usage of tools and adhesives, the craftsman/workforce are handicapped and won't be able to produce the required output. Manufacturing of tools and equipment's and adhesives is a separate industry and is covered under their respective industry.

3. Wood Panel Industry - plywood/veneer/ fiber boards

- About the sector

Wood panel industry is a fast growing industry in India. The industry is a raw material supplier to the furniture sector.

Examples of some of the products offered by the industry include round sawn and glued laminated timber, laminates; particle boards and plywood. Plywood has largest share among these entire product range.

The broad categorization of industry comprises of plywood, laminates & veneers and MDF products. Plywood is favourite in wood panel industry followed by veneers and MDF. MDF is gaining popularity and used as substitute of plywood.

Wood Panel industry is moving towards organized from domination of unorganized sector in industry due to increase in paying capacity of middle class and willingness to invest on branded items.

Total share of unorganized sector in industry is 70% and remaining 30% belongs to organized sector. Organized sector of industry is highly consolidated and is marked by presence of very few market

³⁹ According to Indian Machine Tools Manufacturer's Association <http://www.imtma.in>

players .Century ply and Green ply are amongst the leaders of this market these two companies draw 50% revenue of organized market, other prominent companies are Archidply, Sarda plywood and Kitply.

The Indian wood panel market is valued at Rs. 28500⁴⁰ Crore of which, plywood has a share of 65%, whereas surface products (laminates) and engineered products (MDF) have a share of 19% & 16% respectively. Rapid urbanisation, favourable demographics, increasing per capita income, nuclear families and rise of the middle class in the country have been important growth drivers for the industry.

- Value chain

Value chain of wood panel has three stages from procurement /commercial, production & storage to sales.

The commercial/procurement phase includes the purchase of raw material (timber) and chemicals (formaldehyde, phenol formaldehydes, resign). The wood is procured by suppliers, in house plantations and maximum by imports. Chemicals are procured from suppliers or manufactured in house.

In the production process, timber logs are boiled to remove oil content and impurities. This is followed by peeling process which produce face and core veneer.

Sales stage includes several channels to sell plywood like retailers, online selling or direct selling to consumer.

Major timber producing states are Uttar Pradesh, Chhattisgarh, Uttarakhand, Himanchal Pradesh and Madhya Pradesh. Highest demand for plywood is in north India followed by south , west and eastern part of India⁴¹.

- Future growth

The market of ~ Rs.28500 is growing at the rate of 18% CAGR and expected to reach approximately Rs.80000 crore in 2022 and cross the Rs.126000 crore in 2025.⁴²

The market is largely unorganized with the presence of several indigenous and small players. One of the main drivers is the development of the residential construction sector in the country because of which there is an eminent rise in demand of panel woods. It is estimated that that with the implementation of GST would have a positive impact on the plywood industry especially the organized sector companies.⁴³

⁴⁰ [SKP Securities Limited- Century Ply report,2015, India Plywood Market Outlook to 2019, Ken Research \(2015\)](#)

⁴¹ [India Plywood Market Outlook to 2019, Ken Research \(2015\)](#)

⁴² [SKP Securities Limited- Century Ply report,2015, India Plywood Market Outlook to 2019, Ken Research \(2015\)](#)

⁴³ [ICICI Securities Report- Century Plyboards India,2015](#)

13. Allied segments

1. E- Commerce – Online Furniture Market

- About the sector

In FY 14, the online furniture market was expected to be around \$40 Mn⁴⁴ and it is expected that the online furniture market would grow with a CAGR of 75% and reach USD of 700 Mn⁴⁵ mark by 2020. Taking this into account, the current market size of online furniture market is estimated to be approximately Rs. 850 Cr. Further, it is estimated that currently, online retailing accounts for around one percent of overall furniture sales but is expanding rapidly.⁴⁶

The leading players in the online space are Pepper Fry, Urban Ladder and Fabfurnish followed by many other new joiners. The online furniture market got off the ground in January 2012 with the launch of Pepperfry. About two months later, Fabfurnish started and later, Urban Ladder joined the fray.

The Indian furniture industry is very vast and can accommodate multiple players in this segment. Many ecommerce players have expanded their range of products to include furniture as many Indians are opting for shopping online. The other players in this segment include Snap Deal, Mebelkart, Homefuly, Amazon, Flipkart, Customfurnish, Wooden Street, Stichwood, Modspace, Homeshop18, ShopClues and Houseful. Over the past few years, Pepperfry, Urban Ladder, Fab furnish have clearly emerged as frontrunners in the race.

The increasing range of product, easy refundable policies along with varied payment options are turning the tables in the favor of shopping online.

Logistics i.e., delivery and installation of the furniture is a key element in the value chain of the online furniture providers. For further expansion, players have been improvising their logistics and warehousing. Pepper fry has commenced own distribution system and has reduced its logistics cost per item. The company has its own network of more than 400 trucks covering 400 cities and towns from the distribution centers to the door step of the end customer.⁴⁷

It is believed that the next four years the market shall be very positive and grow on upward trajectory. For the market to grow further, it would be needed that customer service provided to customers post placing order is as per customer expectations. For this, it is estimated that there would be an increased need of delivery and installation assistants in the cities.

⁴⁴ Article by CEO, Redseer Consulting - Analysis: India's Online Furniture Market; What Lies Ahead,2015- <https://news.nextbigwhat.com/>

⁴⁵ Article by CEO, Redseer Consulting - Analysis: India's Online Furniture Market; What Lies Ahead,2015- <https://news.nextbigwhat.com/>

⁴⁶ Article by Forbes India in Jan 2016— "Online furniture retailing finally comes home"- <http://forbesindia.com>

⁴⁷ Article by Forbes India in Jan 2016 – "Online furniture retailing finally comes home" <http://forbesindia.com>

- Skill gap analysis

The below segment covers the skill gap assessment for the role of delivery and installation assistant.

- *Assumptions for estimation*

1. Through interactions and secondary research, overall market size and share of online players was determined.
2. It is considered that the online players serve majorly in Tier I and Tier II cities. Tier I cities account for 8 cities while Tier II account for ~90 cities.⁴⁸
3. Growth rate of manpower till FY 20 is considered at 75% and at 50% till FY 22 and at 25% till FY 25 taking into consideration the expected increase in the online furniture market, the market saturation beyond 2020 along with technological advancements and improvement in efficiencies.

- *Unique job role*

NSQF Level	Job Role
level 3	Delivery and Installation Assistant

- *Demand forecast*

It is estimated that there would be an approximate increase of 89,000 jobs by the end of FY 22 and 1.79 lacs jobs by end of FY25 in the job role of Delivery and Installation assistant in online furniture market. The following table provides the breakup for job role from FY16 to FY25:

Job Role	Current	Estimated Manpower		Gap	
	yr 2016	yr 2022	yr 2025	2022	2025
Delivery and Installation Assistant	4464	94202	183988	89738	179524

⁴⁸ http://finmin.nic.in/the_ministry/dept_expenditure/notification/hra_citiesclassification/21-07-2015.pdf

2. Interior Design

- About the sector

Interior design is a multi-faceted profession wherein creative and technical solutions are applied within a structure to achieve a built and better interior environment.

Before 80s, the study of interior design was part of architecture studies. But with changing times and economic growth of India, lifestyle trends and evolving mind-set of the people, interior design has grown to become a fully-fledged professional course today. In present times many from the architecture profession have migrated to interior design due to its growing market and demand of good interior designers.

Interior Designing sector shall grow at the rate of 45% CAGR⁴⁹ till FY2020 followed by 30% CAGR going forward taking into consideration saturation in market after few years. Overall in coming years due to favourable government programmes and policies like housing for all, smart cities, urban development, growth of real estate and change in style of living with global exposure will lead market growth of interior sector

- Geographical spread

Interior designing firms are mainly situated in metros like Delhi, Bangalore, Mumbai, Pune, Surat, Pune, Ahmedabad, other cities like Lucknow , Rajkot, Cochin etc. Interior designing is directly linked to real estate sector growth and depends on paying capacity of clients, thus, major companies related to interior designing are situated in big cities where purchasing power is high.

- Growth drivers

To a large extent, the construction boom of recent times is responsible for the growth of interior designing sector in India. Demand from upcoming metros and tier-2 cities are high. Nuclear families, rise in disposable incomes are reason for interior growth, other factors like the exposure to global lifestyles has led Indian consumers to consciously consider well-designed interiors for a luxurious experience.

The other major reasons which are attributable to the growth of the industry are:

- Growth of disposable income among the middle class population.
- Rising need for professional help to make the limited living and working space more comfortable, beautiful and practical.
- Rising number of exhibitions and decors in big cities and towns.

⁴⁹ [Decoding House for all by 2022](#)

- Skill gap analysis

- *Assumptions for estimation*

1. As per CII report, at present 10%⁵⁰ of architectural designer works as interior designer.
2. Current number of architectural designer data gathered from Council of architecture statutory body of Government of India.
3. 10% of architectural designer + number of seats in ITI's at present+ Interior Colleges Pass outs (approximately 200 colleges⁵¹ and average ~30 seats per college) taken as base number of supply of interior designer in 2016
4. Current year demand is basis 30% shortage of interior designer in the market (2016)
5. Growth rate of manpower considered at the rate of 45% CAGR for till FY 20 and rate of @30% CAGR from FY21 onwards.

- *Unique job role*

Job role
Interior Designer- Consultant

- *Demand forecast*

At present 13,917 interior designers demand is in the market and market is expected to grow at the rate of 45% CAGR and expected to grow in near future at the same rate till FY20 followed by 30% CAGR due to saturation in market. Overall market shall grow due to urbanization, increase in nuclear families, increase in income & buying capacity of upper middle class population and changing lifestyles. It is expected that additional 90,000 interior designer would be required in 2022 and the additional requirement would be ~ 2.1 lakh till 2025.

Job role	Current	Estimated manpower		Gap	
	Yr 2016	Yr 2022	Yr 2025	2022	2025
Interior Designer- Consultant	13917	103970	228422	90053	214505

⁵⁰ CII, [India Design Report](#)

⁵¹ <http://www.htcampus.com/design/interior-design-colleges-courses-in-india/>

14. Supply Side

There are various institutes offering courses in furniture and fittings segment. Few are stated below:

- ITI

According to the National Council for Vocational Training (NCVT) website, there are approx. 12389⁵² ITI's (Industrial Training Institutes) spread across the country offering courses in various trades across various segments.

The split across regions in the country is as below:

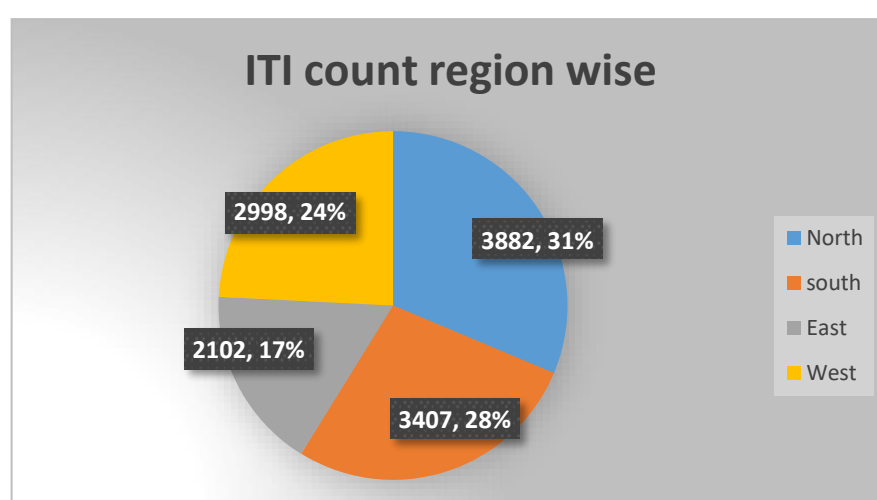


Figure 9: ITI count region wise

The total number of seats in all 126 trades⁵³ in ITI is 25.27 Lakhs⁵⁴.

Among the courses offered, there are courses being undertaken relating to Furniture and Fittings segment. E.g. - Carpenter Fitter, Interior Design and Decorator, Cane willow and Bamboo Worker, Machinist, Welder, sheet Metal worker, Tools and Die Worker, Plastic Processing Operator etc.

The trades studied at various ITI's are relevant to multiple sectors across the industry. Out of the relevant trades studied at ITI's few are direct contributors to his segment like Carpenter, Interior Design and Decorator, Cane willow and Bamboo Worker Tools and Die Worker (Dies and Moulds), Plastic Processing Operator, Welder(Fabrication and Fitting). And other roles contributing about 1%⁵⁵ to this sector. Other roles include Painter, Welder (GMAW & GTAW)/Welder (DA), Sheet Metal Worker, Machinist, Fitter, Tool & Die Maker (Press Tools, Jigs & Fixtures) and Sheet Metal Worker (DA).

Taking the above direct roles and other roles workforce into account, the total employable workforce would be ~29,534.

⁵² <https://ncvtmis.gov.in> (as on 25th Aug'16)

⁵³ <http://dget.nic.in>

⁵⁴ <https://ncvtmis.gov.in> (as on 25th Aug'16)

⁵⁵ Basis that this sector contribution is 0.5% to GDP

In the following graphs, region wise current seats in all the relevant Trades in ITIs.

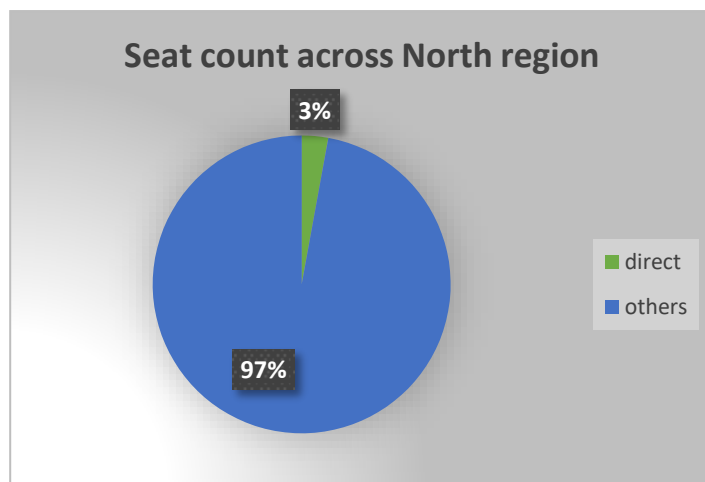


Figure 10: Seat Count across trades – North Region

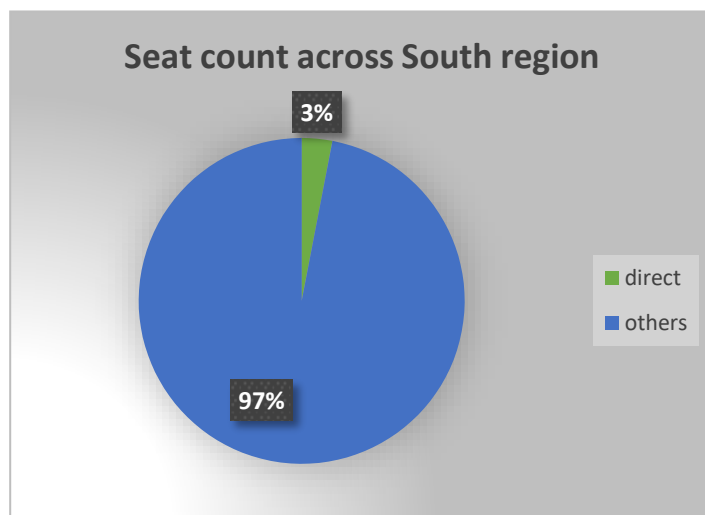


Figure 11: Seat count across trades – South Region

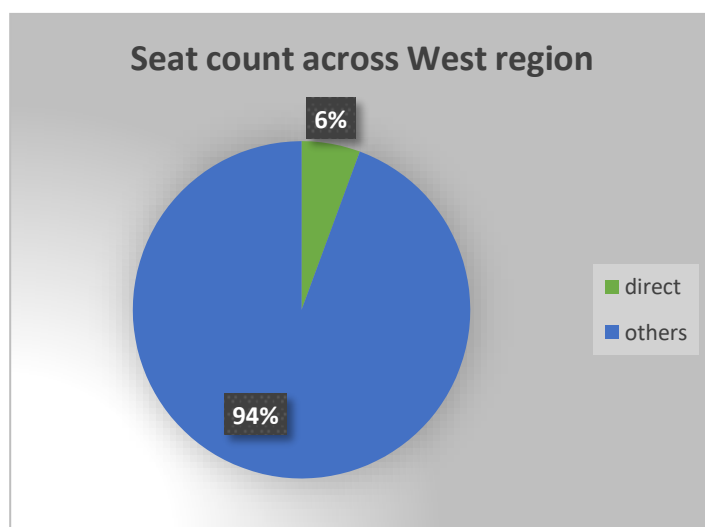


Figure 12: Seat count across trades – West Region

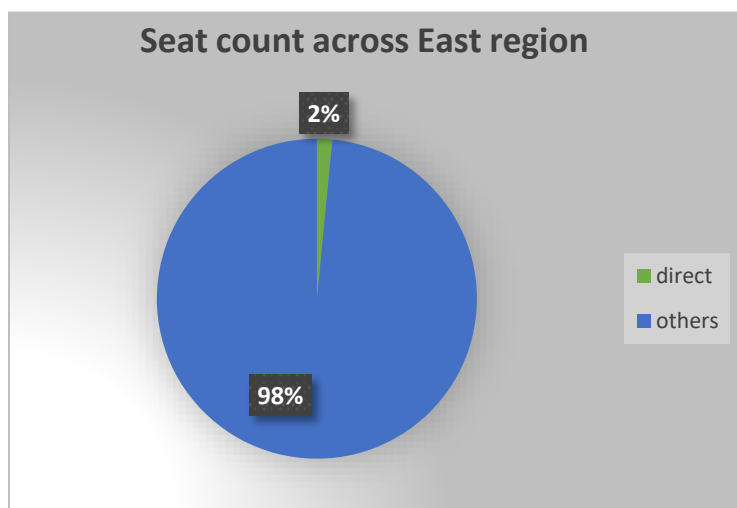


Figure 13: Seat count across trades – East Region

- Training partners

Through the Furniture & Fittings Skill Council under the aegis of Ministry of Skill Development, there are various courses being offered by Training Partners, for increasing the workforce in the furniture and fittings segment. Example of some of the training partners are listed below:

- LabourNet Services India Private Limited
- Deep Training Institute Private Limited (IET Group of Institutions)
- Gram Tarang Employability Training Services Private Limited
- Possit Skill Organization
- Unifier Social Ventures Private Limited

The full list of training partners affiliated with Furniture & Fittings Skill Council is attached in the annexure.⁵⁶

It is assumed that the average number of students per batch is approximately 30 and taking into consideration that about 6 batches are conducted a year, the total employable workforce available from the affiliated training partners would be approx. 18,360 every year.

- Interior design colleges

Besides the above mentioned ITI colleges offering interior design courses, there are several colleges offering interior designing courses. Below are some of the famous ones:

- National Institute of Design, Ahmedabad , Gandhi Nagar and Bangalore
- Sai School of Interior Design, Delhi

⁵⁶ affiliations stated till June'2016

- Sir JJ School of Art, Mumbai
- Arch Academy of Design, Jaipur
- IILM School of Design, Gurgaon
- Vogue Institute of Fashion Technology, Bangalore
- CEPT University, Ahmedabad
- Shri Devi College of Interior Designing, Mangalore
- Exterior Interiors Pvt. Ltd, Cochin
- College of Architecture ,Nashik

Further, it is estimated that there are approx. 200 colleges⁵⁷ providing interior related courses with each offering average 30 seats, thus the total employable workforce is around 6000.

Interior Designers from Architecture courses is estimated to be around 10% out of the total students passing out annually. According to Council of Architecture, there are approximately around 7000 students registered in 2015. Taking this into consideration, the employable workforce is estimated to be around 700.

The number of seats in interior design course offered in ITI colleges, ~3000 are covered under the above mentioned ITI segment. Thus, the total employable workforce in interior design besides ITI segment is ~6700 every year (college seats ~6000+interior designer architecture courses ~700).

Other key points:

- According to industry interactions, it has been observed that many industries/factories are providing in-house on the job trainings to the workforce.
- Labour employed in this sector is majorly from states of Uttar Pradesh, Madhya Pradesh, Bihar, West Bengal and Orissa.
- It has been experienced by industry players in the market that the most of the youth are not inclined to join in this sector due to better employment prospects available in the Tier I and Tier II cities.

⁵⁷ <http://www.htcampus.com/design/interior-design-colleges-courses-in-india/>

- Conclusion supply side manpower

Taking into consideration the supply of workforce into the furniture and fittings sector from,

- ITI ~29534
- Training Partners ~ 18360
- Interior Design colleges ~6700

It is hereby evident from industry interactions and the availability of number of seats, that there is dire need to increase awareness about the employability options available in the sector along with increasing the number of colleges/institutions where youth can avail trainings followed by placements in various job roles in the sector.

It is needed that trainings provided to labour/youth is standardised. It is required that the workforce possess the right skills to contribute effectively. This would also include conducting up-skilling of the existing workforce.

Along with the skill gap assessment and development of QP/NOS , the major consideration to be addressed are proper trainings conducted by training partners which are industry specific along with relevant industry certifications.

15. Overall Conclusion

The Indian Furniture industry is growing at a rapid pace and is expected to grow at 15% CAGR. There has been change in the consumer demand with increasing urbanisation and changing lifestyles. Further, the increase in the real estate construction activities has also provided a boost to the furniture and fittings sector.

- **Wood furniture** accounts for major proportion in the furniture industry. This segment is labour intensive and it is expected that there would be an increase of 20 lacs jobs by the end of FY 22 and 36 lacs jobs by end of FY25 in the job roles in wooden furniture industry.
- **Metal furniture** accounts for approx. 25% of furniture in India. Major kinds of metal used in furniture includes aluminium, steel, iron. An increase of 6.9 lacs jobs by the end of FY 22 and 12.6 lacs jobs by end of FY25 in the job roles in employment is expected.
- **Plastic furniture** - The current market size is approx. 3500 cr and the growth in the use of plastic in every sphere of life has only increased the use of plastic furniture in India. It is estimated that there would be an approximate increase of approximately 32,000 jobs by the end of FY 22 and approximately 58,000 jobs by end of FY25 in the job roles.
- **Bamboo and Cane furniture**- Genetic resources of Bamboo and cane in India make it an industry with high growth potential. It is estimated that there would be an approximate increase of approximately 10,000 jobs by the end of FY 22 and approximately 20,000 jobs by end of FY25 in the job roles
- The **architectural fittings i.e., doors/windows** market in India is approximately Rs. 15000 crore and market is growing at a rate of 10% CAGR. It is estimated that there would be an approximate increase of 1.85 lakhs jobs by the end of FY 22 and 3.25 lakhs jobs by end of FY25 in the architectural fittings industry.
- **Modular fittings** provide low space high utility for house space whether it is wardrobe, bedroom furniture or dining hall and kitchen. Most popular section of modular fittings is modular kitchen. The modular Fittings market in India, Current estimation of market is approximately Rs. 6800 crore and it has been growing at a rapid rate. It is estimated that there would be an approximate increase of 18.5 lacs jobs by the end of FY 22 and 35.6 lacs jobs by end of FY25 in the modular fitting industry.
- **Hardware Fittings/Locks/joinery** - Fittings acts as a support to the furniture and complete the process of installation of furniture. The current market size is approximately 5500 crore. It is estimated that there would be an approximate increase of 2 lacs jobs by the end of FY 22 and 3.65 lacs jobs by end of FY25 in the unique job roles.
- **E commerce – Online Furniture Segment** - It is expected that the online furniture market would grow with a CAGR of 75% and reach the USD of 700 Mn mark by 2020. Logistics i.e.,

delivery and installation of the furniture is a key element in the value chain of the online furniture providers. It is estimated that there would be an approximate increase of 89,700 jobs by the end of FY 22 and 1.79 lacs jobs by end of FY25 in the job role of Delivery and Installation assistant.

- **Interior Designing-** Interior Designing sector shall grow at the rate of 45% CAGR⁵⁸ till FY2020 followed by 30% CAGR going forward taking into consideration saturation in market after few years. Overall in coming years due to favourable government programmes and policies like housing for all, smart cities, urban development, growth of real estate and change in style of living with global exposure will lead market growth of interior sector. At present 13,917 interior designers are in the market and market is expected to grow at the rate of 45% CAGR and expected to grow in near future at the same rate till FY20 followed by 30% CAGR due to saturation in market. Overall market shall grow due to urbanization, increase in nuclear families, increase in income & buying capacity of upper middle class population and changing lifestyles. It is expected that additional 90,000 interior designer would be required in 2022 and the additional requirement would be ~ 2.1 lakh till 2025.

- **Supply Side**

- **ITI** - According to the National Council for Vocational Training (NCVT) website, there are approx. 12389 ITI's spread across the country offering courses in various trades across various segments.
The trades studied at various ITI's are relevant to multiple sectors across the industry. Out of the relevant trades studied at ITI's few are direct contributors. Other roles contribute about 1% to this sector. Taking the above direct roles and other roles workforce into account, the total the employable workforce would be ~29,534.
- **Training partners** affiliated with Furniture & Fittings Skill Council also provide trainings related to the sector. List is provided in the annexure. The total employable workforce would be approx. 18,360 every year.
- **Interior Design colleges** – the total employable workforce is ~6700.
- It is needed to increase awareness and increase the number of colleges/institutions where youth can avail trainings followed by placements in various job roles in the sector.
- It is needed that trainings provided to labour/youth is standardised. It is required that the workforce possess the right skills to contribute effectively

⁵⁸ [Decoding House for all by 2022](#)

16. Way Forward

Based on the skill gap assessment following job roles may be considered for development of QP NOS document:

Sector Name	Job Role
Wooden Furniture	Sr. Manager Commercial-Wooden Furniture
	Sr. Manager Production -Wooden Furniture
	Sr. Manager Sales-Wooden Furniture
	Sr. Manager Logistics -Wooden Furniture
	Sr. Manager After Sales-Wooden Furniture
	Purchase Manager-Wooden Furniture
	Manager Production-Wooden Furniture
	Sales Manager -Wooden Furniture-Wooden Furniture
	Supervisor Production-Wooden Furniture
	Supervisor Furniture packer-Wooden Furniture
	Design Supervisor -Wooden Furniture
	Sales supervisor/Assistant Manager Sales
	Assistant Manager Logistics-Wooden Furniture
	Wood Quality Supervisor-Wooden Furniture
	Design Assistant-Wooden Furniture
	Store In charge -Wooden Furniture
	Executive Purchase-Wooden Furniture
	Lead – Carpenter-Wooden Furniture
	Lead Wood Quality Examiner /test technician-Wooden Furniture
	Lead Sales/Executive sales-Wooden Furniture
	Lead Sofa Maker-Wooden Furniture
	Customer support Technician-Wooden Furniture
	Lead Furniture Delivery and Installation-Wooden Furniture
	Assistant Customer support technician-Wooden Furniture
	Layout Assistant-Wooden Furniture
	Store Keeper -Wooden Furniture
	Purchase Assistant-Wooden Furniture
	Machine Operator for cutting/Measuring/Assembling -Wooden Furniture
	Wood Carving-Wooden Furniture
	Assistant Wood Examiner -Wooden Furniture
	Painter -Wooden Furniture
	Assistant Carpenter-Wooden Furniture
	Polisher-Wooden Furniture
	Assistant Sofa Maker -Wooden Furniture
	Field Assistant Sales-Wooden Furniture
	Assistant Furniture Delivery & Installation-Wooden Furniture
	Helper-Wooden Furniture
Metal Furniture	Sr. Manager Production & Quality-Metal Furniture
	Sr. Sales Manager-Metal Furniture

	Sr. Logistics/Delivery Manager-Metal Furniture
	Quality Manager-Metal Furniture
	Design Manager-Metal Furniture
	Purchase manager-Metal Furniture
	Manager Production and Packaging-Metal Furniture
	Store Manager-Metal Furniture
	Manager Sales-Metal Furniture
	Supervisor storage-Metal Furniture
	Design supervisor-Metal Furniture
	Supervisor purchase-Metal Furniture
	Supervisor Quality-Metal Furniture
	Supervisor production & packaging-Metal Furniture
	Sales supervisor-Metal Furniture
	Logistics and Installation supervisor-Metal Furniture
	Supervisor customer support-Metal Furniture
	Lead Store keeper-Metal Furniture
	Design Assistant-Metal Furniture
	Purchase lead-Metal Furniture
	Lead fork lift operator-Metal Furniture
	Lead welding technician-Metal Furniture
	Lead Metal cutting/bending machine operator-Metal Furniture
	Lead Polisher/ powder coating technician - Metal Furniture
	Lead Quality assistant/test technician -Metal Furniture
	Lead Assembler-Metal Furniture
	Lead Furniture packer-Metal Furniture
	Lead Sales executive-Metal Furniture
	Lead Delivery and Installation executive-Metal Furniture
	Customer support technician-Metal Furniture
	Purchase executive-Metal Furniture
	Welding technician-Metal Furniture
	Metal cutting/bending machine technician-Metal Furniture
	Polisher/Powder coating technician-Metal Furniture
	Driller-Metal Furniture
	Assembler technician-Metal Furniture
	Furniture packer - metal-Metal Furniture
	Sales field assistant-Metal Furniture
	Delivery and Installation assistant-Metal Furniture
	Customer support assistant technician-Metal Furniture
	Helper-Metal Furniture
Plastic Furniture	Sr. Manager Design – Plastic Furniture
	Sr. Manager Commercial – Plastic Furniture
	Sr. Manager Production – Plastic Furniture
	Sr. Manager Sales & Logistics - Plastic Furniture

	Design Manager - Plastic Furniture
	Purchase Manager/Store Manager - Plastic Furniture
	Manager Production - Plastic Furniture
	Sales Manager - Plastic Furniture
	Logistics Manager - Plastic Furniture
	Design Supervisor - Plastic Furniture
	Assistant Manager Commercial - Plastic Furniture
	Supervisor Finished Goods Quality - Plastic Furniture
	Supervisor Machine Operators - Plastic Furniture
	Assistant manager Sales - Plastic Furniture
	Assistant Manager Logistics - Plastic Furniture
	Design Assistant - Plastic Furniture
	Store In charge - Plastic Furniture
	Executive Purchase - Plastic Furniture
	Executive Quality Check- Plastic Furniture
	Lead Moulder - Plastic Furniture
	Executive Sales - Plastic Furniture
	Executive logistics - Plastic Furniture
	Layout Assistant /Illustrator - Plastic Furniture
	Store Keeper - Plastic Furniture
	Purchase Assistant - Plastic Furniture
	Moulding Assistant /Machinist - Plastic Furniture
	Quality assistant - Plastic Furniture
	Field Assistant Sales - Plastic Furniture
	Field Assistant Logistics - Plastic Furniture
Bamboo and Cane Furniture	Sr. Manager Design-Bamboo and Cane Furniture
	Purchase Manager/Store Manager-Bamboo and Cane Furniture
	Manager Production-Bamboo and Cane Furniture
	Sales Manager-Bamboo and Cane Furniture
	Supervisor Finished goods Quality-Bamboo and Cane Furniture
	Master Furniture maker-Bamboo and Cane Furniture
	Assistant manager Sales-Bamboo and Cane Furniture
	Assistant Manager Logistics-Bamboo and Cane Furniture
	Design Assistant-Bamboo and Cane Furniture
	Lead quality examiner-Bamboo and Cane Furniture
	Lead Maker Bamboo Furniture-Bamboo and Cane Furniture
	Lead Cane Weaver /Cane Seat Weaver
	Lead Painter and Polisher-Bamboo and Cane Furniture
	Round bamboo furniture maker-Bamboo and Cane Furniture
	Store Keeper-Bamboo and Cane Furniture
	Operator - Bamboo Treatment
	Operator - Cutting, Splitting and assembling
	Operator - Finishing and Packing
	Quality checker (boiling in bamboo)-Bamboo and Cane Furniture
	Cane Weaver /Cane Seat Weaver-Bamboo and Cane Furniture

	Field Assistant Sales and Installation-Bamboo and Cane Furniture
	Repair & Maintenance Assistant-Bamboo and Cane Furniture
Architectural Fittings- Door/Windows	Purchase Manager- Doors/windows
	Manager Production- Doors/windows
	Manager Sales- Doors/windows
	Manager Design- Doors/windows
	Design Supervisor- Doors/windows
	Quality Supervisor- Doors/windows
	Supervisor Commercial- Doors/windows
	Supervisor Production- Doors/windows
	Sales Supervisor/Assistant Manager Sales- Doors/windows
	Supervisor Customer Support- Doors/windows
	Design Assistant- Doors/windows
	Lead Machine Operator Non CNC- Doors/windows
	Lead Machine Operator CNC- Doors/windows
	Lead Quality Examiner/Test Technician- Doors/windows
	Store In charge - Doors/windows
	Lead Purchase- Doors/windows
	Frame Installer- Wooden/Aluminium- Doors/windows
	Installer- Frameless/Framed Glass Door/Framed Door- Doors/windows
	Lead Cutter /Handler-Glass/Aluminium- Doors/windows
	Lead Painter- Doors/windows
	Lead Polisher-- Doors/windows
	Lead Sales Executive-- Doors/windows
	Store Keeper - Doors/windows
	Cutter/Handler- Doors/windows
	Assistant Quality Examiner- Doors/windows
	Fitter/Assembler- Doors/windows
	Fitter Assembler Wooden/Aluminium- Doors/windows
	Machine Operator (CNC)- Doors/windows
	Purchase Assistant- Doors/windows
	Assistant Machine Operator - Doors/windows
	Painter - Doors/windows
	Polisher- Doors/windows
	Field Assistant Sales- Doors/windows
	Helper- Doors/windows
Modular Furniture	Sr. Manager /GM Commercial–Modular Furniture
	Sr. Manager/GM Production –Modular Furniture
	Sr. Manager/GM Sales–Modular Furniture
	Purchase Manager–Modular Furniture
	Manager Production–Modular Furniture
	Manager Sales–Modular Furniture
	Supervisor Commercial–Modular Furniture

	Supervisor Storage–Modular Furniture
	Supervisor Production–Modular Furniture
	Quality Supervisor- Modular Furniture
	Supervisor Packaging–Modular Furniture
	Design Supervisor –Modular Furniture
	Sales Supervisor/Assistant Manager Sales–Modular Furniture
	Supervisor Customer Support–Modular Furniture
	Design Assistant–Modular Furniture
	Store In charge –Modular Furniture
	Lead Purchase–Modular Furniture
	Lead Quality Examiner/Test Technician- Modular Furniture
	Lead Sales/Executive sales–Modular Furniture
	Lead Cabinet Maker–Modular Furniture
	Customer Support Technician–Modular Furniture
	Lead Assembler-Modular–Modular Furniture
	Assistant Customer Support Technician–Modular Furniture
	Store Keeper –Modular Furniture
	Assistant Quality Examiner- Modular Furniture
	Purchase Assistant–Modular Furniture
	Assembler-Modular–Modular Furniture
	Cabinet Maker–Modular Furniture
	Field Assistant Sales–Modular Furniture
	Helper –Modular Furniture
Hardware Fittings	Sr. Manager Production & Quality-Fittings
	Sr. Manager Commercial-Fittings
	Sr. Sales Manager -Fittings
	Sr. Logistics/Delivery Manager-Fittings
	Quality Manager-Fittings
	Design Manager-Fittings
	Commercial Manager-Fittings
	Manager Production and Packaging-Fittings
	Store Manager-Fittings
	Sales Manager-Fittings
	Logistics Manager-Fittings
	Supervisor storage-Fittings
	Supervisor packaging-Fittings
	Supervisor Quality-Fittings
	Supervisor production-Fittings
	Sales supervisor-Fittings
	Supervisor customer support-Fittings
	Lead Store keeper-Fittings
	Design Assistant-Fittings
	Purchase lead-Fittings

	Lead fork lift operator-Fittings
	Lead welding technician-Fittings
	Lead Metal cutting/bending machine operator-Fittings
	Lead Polisher/Painter-Fittings
	Lead Quality checker-Fittings
	Lead Assembler-Fittings
	Lead executive press section-Fittings
	Lead Sales executive-Fittings
	Lead Delivery and Installation executive-Fittings
	Customer support technician-Fittings
	Lead packer-Fittings
	Store keeper-Fittings
	Purchase executive-Fittings
	Fork Lift operator-Fittings
	Welding technician-Fittings
	Metal cutting/bending machine technician-Fittings
	Polisher/Painter-Fittings
	Assembler technician-Fittings
	Press Section operator-Fittings
	Sales field assistant-Fittings
	Delivery and Installation Assistant-Fittings
	Customer support assistant technician-Fittings
	Helper-Fittings
Online Furniture	Delivery and Installation Assistant
Interior Design	Interior Designer- Consultant

17. Annexure

- List of training partners affiliated with Furniture & Fittings Skill Council

Below is the list of training partners affiliated to Furniture & Fittings Skill Council till 10th June, 2016

S. No.	Names of Training Partner
1	Possit Skill Organization (Delhi)
2	Unifiers Social Ventures Pvt. Ltd. ((Delhi)
3	Everonn Skill Development Ltd. ((Chennai/Tamil Nadu)
4	Labournet Services India Pvt. Ltd. (Bangalore/Karnataka)
5	Gram Tarang Employability Training Services Pvt. Ltd. (Khurdah/Odisha)
6	Deep Training Institute Pvt. Ltd. (Alwar /Rajasthan)
7	Saksham Training and Facility Management Pvt. Ltd. (Bangalore /Karnataka)
8	ITRC Technologies Pvt. Ltd. (Indore / Madhya Pradesh)
9	Lala Kundanlal Memorial Society (Fatehabad / Haryana)
10	T.S Skill and Tech Pvt. Ltd. (Ghaziabad / Uttar Pradesh)
11	Dreamland Immigration Company Pvt. Ltd. (Kaithal/Haryana)
12	Nipstec Limited (Delhi)
13	SB Square Consultancy Services Pvt. Ltd. (Rohtak /Haryana)
14	Skills Academy Pvt. Ltd. (Gurgaon/Haryana)
15	Skills Root Edu Tech Consulting India Pvt. Ltd. (Indore/Madhya Pradesh)
16	Soft Core Services (Jabalpur/Madhya Pradesh)
17	Saswata Barada Educational Charitable Trust (Cuttack/Odisha)
18	Learning Leadership Foundation (Gurgaon / Haryana)
19	GS Techno Innovations Pvt. Ltd. (Gurgaon/Haryana)
20	Ascent Academy of Training and Development Pvt. Ltd. (Delhi)
21	International Fashion Academy India Pvt. Ltd. (Delhi)
22	Panasia Learning & Skills (P) Ltd. (Kolkata/West Bengal)
23	Career Computers Pvt. Ltd.(Indore / MP)
24	SmartOne Technosoft Pvt. Ltd. (Etawah/UP)
25	Acumen Institute of Training and Services (Fatehabad / Haryana)
26	Centre for Employment Training (OPC) Pvt. Ltd. (Pondicherry)
27	Wadhwani Education Society (Bhopal/Madhya Pradesh)
28	Vendor Plus Consultants Pvt. Ltd. (Delhi)
29	Indian Institute of Higher Education & Research Trust (Delhi)
30	Apar India Institute of Management & Technology (Delhi)
31	M.S.E. Solutions Pvt. Ltd. (Vidisha /MP)
32	Ultimate Energy Resource (P) Ltd. (Bhopal/MP)
33	Paras Sports and Educational Society (Gurudaspur/Punjab)
34	Vishad Edutech Private Limited (Delhi)

35	Capital Coaching Center (Pondicherry)
36	National Education Society (Hisar/Haryana)
37	Sardar Sohan Singh Education and Social Welfare Society (Jabalpur/Madhya Pradesh)
38	RIT Foundation (Delhi)
39	Elysium Technologies Pvt. Ltd. (Madurai /Tamil Nadu)
40	Aaruthal Foundation (Erode / Tamil Nadu)
41	Sewak Social and Environment Welfare Association of Khilchipur (Khilchipur/Madhya Pradesh)
42	Social Awareness Training and Healthy Institutions (Ganjam/Odisha)
43	Siksha Trust (Jajpur/Odisha)
44	KRN Institute of Technology (Kurukshetra/Haryana)
45	Melodisc Skills(Kolkata /West Bengal)
46	Ace Skill Development Pvt. Ltd. (Chennai /Tamil Nadu)
47	Cradle Life Sciences Pvt. Ltd. (Patna/Bihar)
48	Prayas Voluntary Organisation (Balasore /Odisha)
49	New Vocational Training Institute (Sirsa/Haryana)
50	Kanha Bharat Vikas Evam Jan Kalyan Samiti (Tikamgarh/Madhya Pradesh)
51	SmartBrains Engineers & Technologist Pvt. Ltd. (Noida /Uttar Pradesh)
52	Multisoft Systems Technology Consultancy Pvt. Ltd. (Noida/Uttar Pradesh)
53	Karjee Eduventures Pvt. Ltd. (Delhi)
54	Meiyur Education & Skill Development Private Limited (Chennai/Tamil Nadu)
55	Formation Education Development Centre for Rural Organisation and Training (Madurai / Tamilnadu)
56	Vishwabharati Academy's College of Engineering (Ahmednagar/ Maharashtra)
57	Balasore Chamber of Industries & Commerce (Balasore/Odisha)
58	Nirbal Jan Kalyan Samiti (Delhi)
59	Hyderabad Karnataka Development Education Trust (Bidar/Karnataka)
60	Hi-Tech Charitable Trust(Koraput/Odisha)
61	Aarav Vocational Institute Pvt. Ltd. (Muzaffarpur/ Bihar)
62	Ovel Education Private Limited (Delhi)
63	Stic Infotech(Jammu & Kashmir)
64	Bhola Institutional Trust (Ranchi/Jharkhand)
65	Routh Commercial Institute (Paschim Medinipur/ West Bengal)
66	Eduguru India Pvt. Ltd. (Ghaziabad / Uttar Pradesh)
67	A.K. Enterprises (Gorakhpur/Uttar Pradesh)
68	Gems Skills India Pvt. Ltd. (Gurgaon / Haryana)
69	Jubilant Bhartia Foundation (Noida / Uttar Pradesh)

70	Vocman India Pvt. Ltd.(Delhi)
71	Caple Industrial Solutions (Mumbai / Maharashtra)
72	Pragya Jyoti Jan Kalyan Samiti (Indore/Madhya Pradesh)
73	Start Trust (Godda/Jharkhand)
74	Samarpan Sewa Samiti Samarth Desh Samridh Desh (Raipur/Chhatisgarh)
75	Gramin Shiksha Society (Fatehabad/Haryana)
76	NIC Institute of Technology (Kolkata/West Bengal)
77	Arcwood Interiors (Hisar/Haryana)
78	Community Welfare Organisation (Bhopal/Madhya Pradesh)
79	Tribal Education & Charitable Society (Vadodara/Gujarat)
80	WB Urban Academy Private Limited (Kolkata/West Bengal)
81	College of Security Studies (Delhi)
82	Orion Edutech Pvt. Ltd.(Kolkata/West Bengal)
83	Brainware Consultancy Private Limited (Kolkata/West Bengal)
84	Amandeep Education Society (Hisar/Haryana)
85	L.C. Education Society (Hisar/Haryana)
86	Dwaith Infotech Private Limited (Hyderabad/Telangana)
87	Maa Saraswati Educational Trust (Sirmour/Himachal Pradesh)
88	Ask Horizon Education and Technology Private Limited (Bhopal / Madhya Pradesh)
89	The Future Academy (Ranchi/Jharkhand)
90	B.R. Chaudhary Mahavidyalaya Management Committee, Goluwala(Hanumangarh/Rajasthan)
91	GT Educare India Private Limited (Jaipur/Rajasthan)
92	Focal Skill Development Private Limited (Mohali/Punjab)
93	Damini Infotech(Kurukshetra/Haryana)
94	LAAN E-Governance and Education Private Limited (Karimnagar/ Telangana)
95	Wings Educations (Delhi)
96	Saint Conard Shiksha Samiti (Dholpur/Rajasthan)
97	Shreedurga Woodcraft Private Limited (Delhi)
98	Wood Craft Design And Development Society (Sharanpur/Uttar Pradesh)
99	Educomp Solutions Limited (Gurgaon/Haryana)
100	Mores Multipurpose Foundation (Jalgaon/Maharashtra)
101	Evergreen Computer Institute (Jammu Tawi/Jammu & Kashmir)
102	Anurodh Manav Kalyan Samiti (Bhopal / Madhya Pradesh)

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Acronym	Full Name
CAGR	Compounded Annual Growth Rate
NSQF	National Skills Qualification Framework
NCVT	National Council for Vocational Training
FFSC	Furniture & Fittings Skill Council
NSDC	National Skill Development Corporation
EY	Ernst & Young LLP

- List of Respondents

Below is the list of respondents for all the sub sectors distributed among large, medium, small and micro size⁵⁹.

1. Wooden furniture

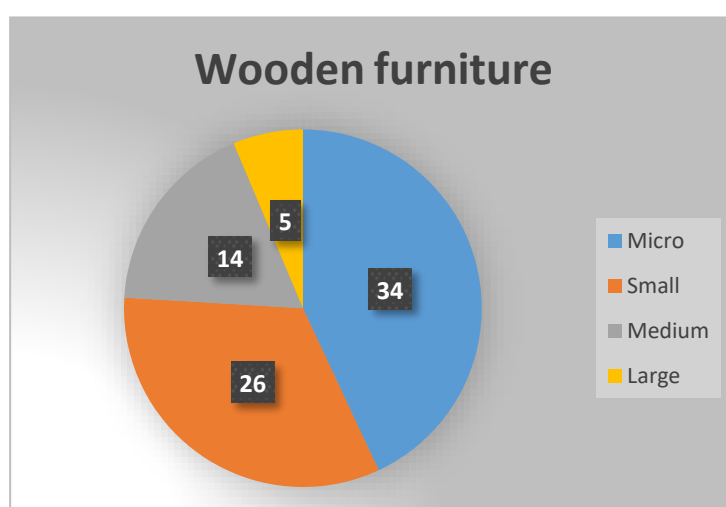


Figure 14: Count of respondents wooden furniture

⁵⁹ As per MSME classification <http://www.dcmsme.gov.in>

2. Metal furniture

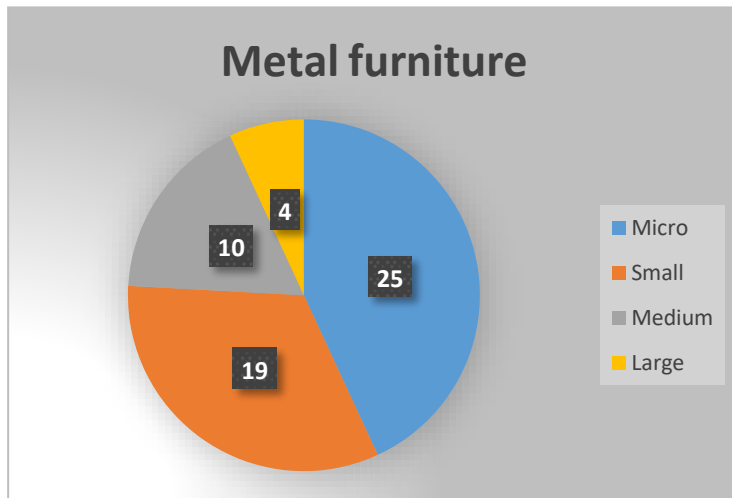


Figure 15: Count of respondents metal furniture

3. Plastic furniture

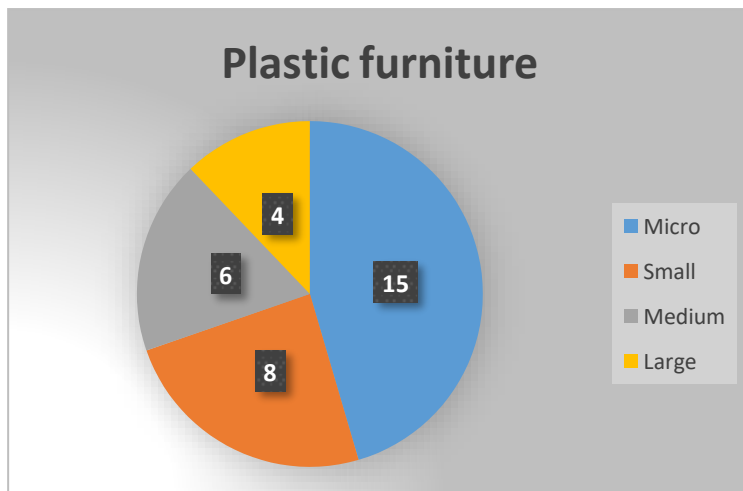


Figure 16: Count of respondents plastic furniture

4. Bamboo & Cane furniture

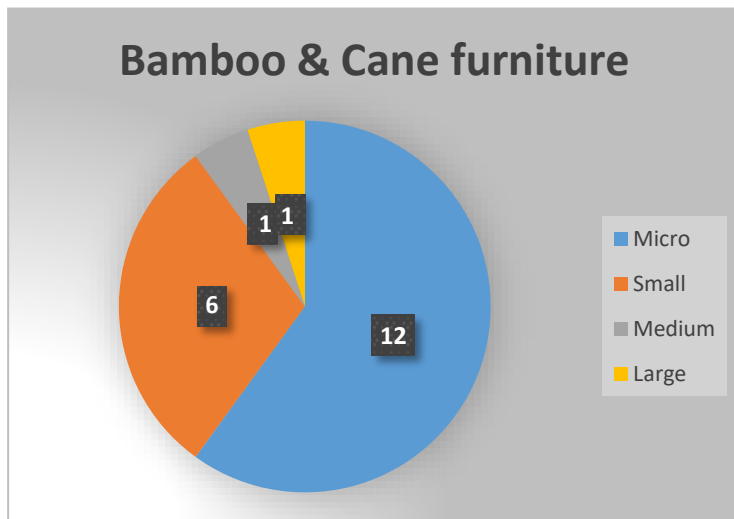


Figure 17: Count of respondents bamboo & cane furniture

5. Architectural Fittings - Doors/Windows

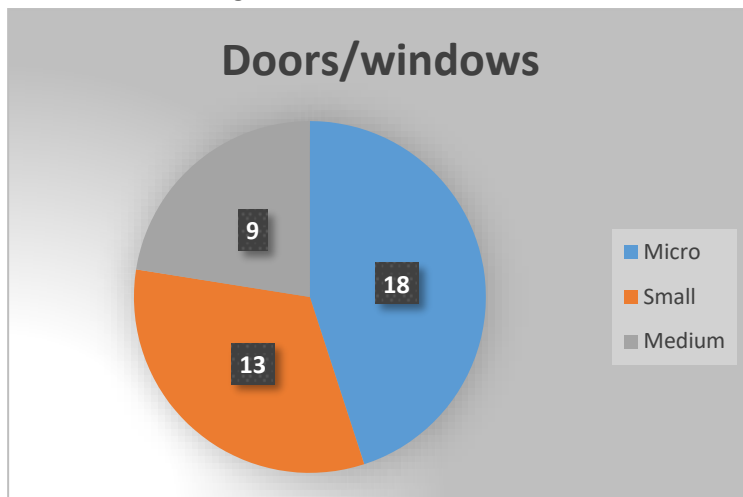


Figure 18: Count of respondents doors/windows

6. Modular furniture

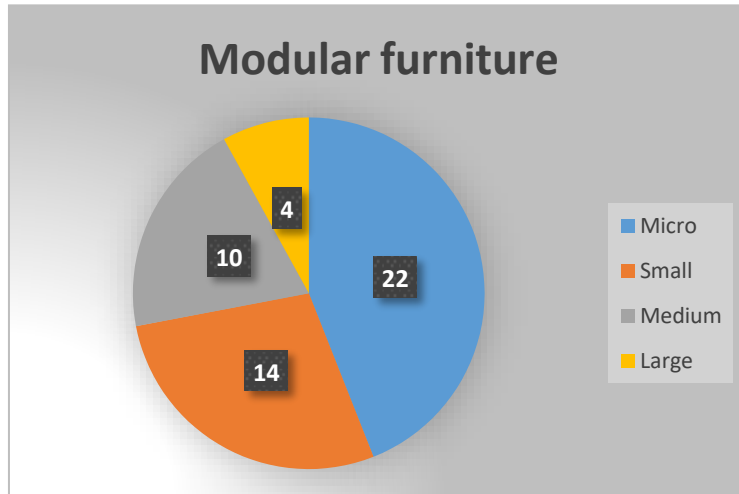


Figure 19: Count of respondents modular furniture

7. Hardware fittings

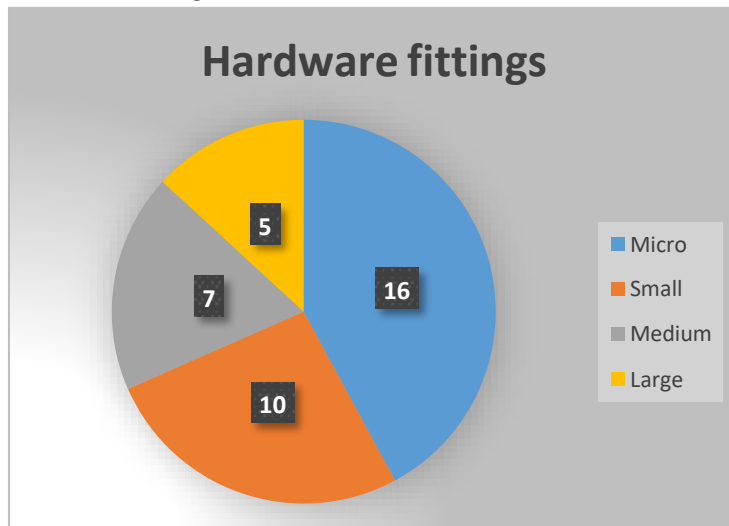


Figure 20: Count of respondents Hardware fittings

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