

Empirical Study on Indian Bamboo Furniture Industry and the Urban Furniture Consumers Perception.

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Abstract:

The global change in climate and sustainability has illuminated the use of many ecofriendly substitutes including bamboo which is also stand as a viable replacement of wood in future. Furniture, which has been from upscale, luxury to necessities has modulated bamboo to satisfy the consumer's demand. In the last two decades, this versatile material is gaining popularity in the furniture markets worldwide. Countries like China, Indonesia has been aggressively promoting their bamboo furniture around the globe and gaining a large market share. However, India has not been able to tap into this market despite being the second largest bamboo producer in the world. The objective of the study is to analyze the reasons of why bamboo furniture has not been able to gain acceptance in the Indian furniture market. A survey study has been carried with sample size of 155 respondents which include end users/ buyers, architects and designers. The study focuses on the Indian consumers who hold highest stake in revenue generation and current industry value preposition. The analysis highlights consumer's narrow mind-set towards bamboo furniture, inadequate training facility, inappropriate knowledge about ergonomics, lack of innovative design and deficiency in trade and promotion. This study will give bamboo furniture manufacturer, retailers, researchers and students an idea about the consumer's expectations from bamboo furniture and the gap of design which affects the acceptability. In conclusion, by promoting bamboo as a sustainable alternative to wood for a furniture crafting, we can revolutionize our upcoming furniture industry and can add an innovative step towards sustainability.

Keywords: Bamboo Furniture's, Bamboo Artisans, Bamboo Market, Consumers Behavior, Purchase

[1.] Introduction

In the last two decades, India has emerged with the fastest growing economy in the global market. When it comes to global market as per the study by World Bank, the systematized furniture industry grows by 20 % every year. The analysis formulated that rapid growth in consumer markets of Asia, made a significant potential for growth in the Indian furniture sector. The Indian furniture sector has a minimal contribution to the GDP (Gross Domestic Product), the input is 0.5 % of the total GDP. As per the analysis report shown in Fig. 1 by India Brand Equity Foundation (IBEF) a major part of this sector, which approximately 85 % is unorganized and remaining 15 % which comprises of manufacturers, such as Godrej & Boyce Manufacturing Co. Ltd., BP Ergo, Featherlite, Durian followed by other big names is organized

(India Brand Equity Foundation (IBEF)). The constant developments in the global economy and population increase raised the demand for timber and its composites therefore a suitable alternate raw material needed that should be modest, fast-growing, freely available and should share physical and mechanical properties to the timber. The substitute should importantly be comparable to the existing processing technologies like timber. Bamboo which is botanically known as "Bambusa" paradoxically enough to the family humble grass Gramineae (Chaowana, 2013). The furniture industry has shown a rapid change globally in the past three decades. The development that has occurred in the last 10 years has illustrated significant dynamics in the redistribution of world markets due to the growing consumer spending

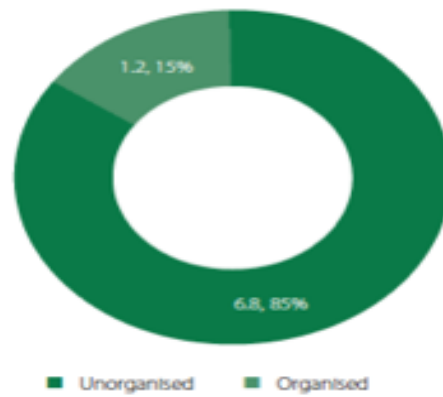


FIGURE 1: Furniture Sector of India
Sources: (India Brand Equity Foundation (IBEF))

In past 15 years' furniture production has valued double and over the last 10 years, it has strike the growth by 61%. Analyzing the data of the year 2003 it has shown that the developed countries had manufactured 75% of furniture globally, China itself contribute 39% to the World Furniture productions shown in Fig. 2 by (Jivkov, 2019). Till the year 2010 furniture production was considered ousted by countries with an average and low standard of living (Jivkov, 2019). The rapid increase in the social status of the economy had rapidly boosted the demand for furniture. The tremendous increase in the demand is over-stressing the timber resources to which for timber as whole material is difficult to satisfy the need of all. Bamboo has been turned up as a suitable substitute and many studies have proven its durability longevity and sustainability. Many countries have adopted bamboo as the main raw material for acknowledging the various needs of wood and had turned to be the largest bamboo distributors in the world.

India is one of the major bamboo producers and accounts for the second-largest reserve of bamboo in the globe today. Planning Commission has estimated the size of domestic bamboo economy around 2000 crores. But ironically India's share in global bamboo trade and commerce is only 4 % though its global bamboo growth is 45%. But despite of such a large scale of bamboo resources the country is still not able to identify the pure potential of the bamboo. The country with a population of 1.3 billion and having such valuable in-house resources of wood substitute (bamboo) is still totally dependent on timber to fulfill the needs of having basic furniture. According to CSIL (Centre for Industrial Studies), India is the 4th furniture-consuming country and with each year demand for furniture is also growing rapidly. To mitigates the increasing demand for furniture, bamboo as furniture material needs to be considered. But being one of the most abundantly grown materials there is still a lack in considering this material for furniture production.

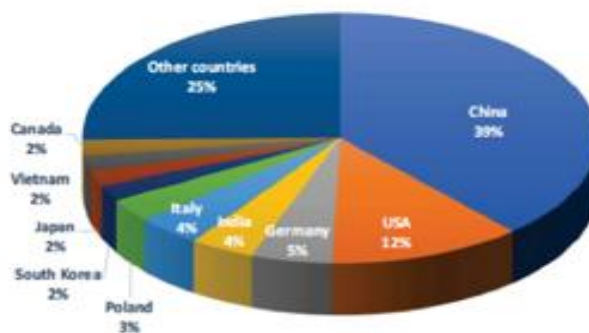


FIGURE 2: World Furniture Production
Sources: (Jivkov, 2019)

[2.] Research Methodology and Objective

The research paper is descriptive and compiled with the reference of qualitative and quantitative data. The primary data is being accumulated by the surveys and a series of questionnaire talks with Architects, Designers and consumers were being prepared to evaluate the potential of the bamboo furniture market. The secondary data is being jotted with the online documented literature, available articles by the government, and private source to assess the clear picture of the bamboo furniture markets.

This paper attempts to assess the following points:

- (a) The Indian consumer's perception towards bamboo as furniture and what strategies are needed for its future promotion?
- (b) The current status of Indian local artisan and the bamboo Workers?

- (c) What are the major regulatory reforms and policies needed for promoting the bamboo furniture industry?

This paper tries to assess the bamboo furniture industry's potential and economic impact based on research, market survey, designers, and local craftsmen.

Indian Bamboo Market

Bamboo has a rich history and promising future as a part of the solution to many challenges. Being a sustainable resource and fastest-growing grass, it is one of the oldest and most precious plant materials benefiting human societies since history. Bamboo can thrive in extreme climatic conditions, and it has nearly 1500 documented applications of bamboo but if we analyzed the furniture industry bamboo is still being considered a cheap and outcast material.

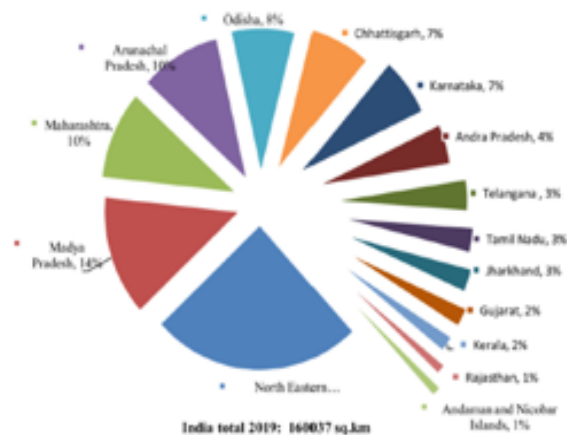


FIGURE 3: Bamboo Bearing of India
Sources: (FSI, 2019), (Cajee, 2018)

In the course of literature study it was observed that the villagers worked in these industries as a bamboo cutter, earns up to Rs 30 to 45 per day as part of income. The paper mill, on the other hand, was procuring bamboo at throwaway prices Rs. 180 for a ton, or 2,400 meters, of bamboo and the local market, one-meter fetches Rs 20. The FSI report state that India has a total of 136 species (125 indigenous and 11 exotica) from 23 genera. The country accounts wide landmass of bamboo growing states like the Northeast which is the

region of semi-green and deciduous forest bamboo and contributes majorly up to 50% to the bamboo resources of the country. Some of the other countries which majorly contribute to the bamboo mass production are Madhya Pradesh, Maharashtra, Arunachal Pradesh, Odisha, Chhattisgarh, etc. as shown in Fig. 3. As bamboo is not common in an urban area, the data is being collected from the rural area of all the states for forming a national-level estimate. India's clumps forming bamboo constitute over 67% of the total

growing stock, out of which *Dendrocalamus strictus* is 45%, *Bambusa bamboos* 13%, *Dendrocalamus hamiltonii* 7%, *Bambusa tudla* 5%, and *Bambusa pallida* 4%. All the other species put together are 6%, *Melconna bacciferra* is a non-clump forming bamboo that accounts for 20% of the growing stock and is found majorly in the north-eastern state of India (Naithani, 1993). The various threats to sustainable human survival, such as global warming, water crisis, and so on, the concept of ecological design in furniture is needed to be promoted. Furniture making has always been a part of Indians' cultural heritage. From around 1336 AD during the Vijayanagar empire, the furniture making have been practiced by the craftsmen, they used to preserve, ornate and intricate much of the country's history into the carved pieces of furniture. The Kings used to be the main patrons and admired the forms of art that were mostly used in ceremonial furniture pieces (Business Opportunities in India Logo, 2016). Changes in Indian living standards have rapidly increased the demand for furniture. Furniture which used to be a necessity now has been marked as a status symbol. To satisfy the growing needs of the Indian consumer's bamboo has turned up to be an effective resource. Bamboo is super strong and durable. It is not less than 27 % harder than oak, 13 % than maple, and 50 % more stable than common wood (Mohanty , Sujatha, &

Uday , 2015). But unfortunately, it is considered a cheap material and has only been able to acquire low-income consumers & local Indian markets. Bamboo as a material in India has not been able to tap the interest of the urban market and the designer.

[3.] Survey Analysis

The bamboo furniture industry in India has been constrained to small-scale cottage industries and there is a gap between the proper processing knowledge of bamboo and its awareness among the users. The furniture industry consumes only 1% share because of these gaps. To analysis, the reasons for the non-acceptability of bamboo furniture by Indian consumers the following survey with a sample size of (N=155), conducted was focusing majorly on the architects, designers, and general urban consumers. The sample size which participated in the survey was 20% of Design students, 18% were architects and design professionals and the rest were from engineering, administrative, art & crafts, and academic background shown in Fig. 4 & Fig. 5. The mixed sample size is being taken and a survey is generated on basis of their cumulative responses. The question that was asked from the respondents caters to their name, age, Occupation, etc. to know the consumer's perception towards bamboo furniture.

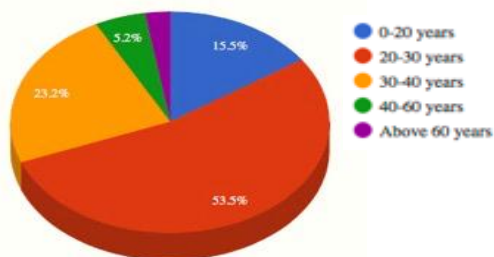


FIGURE 4: Age of the Respondents

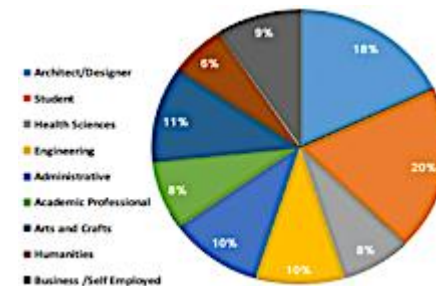


FIGURE 5: Occupation of Respondent

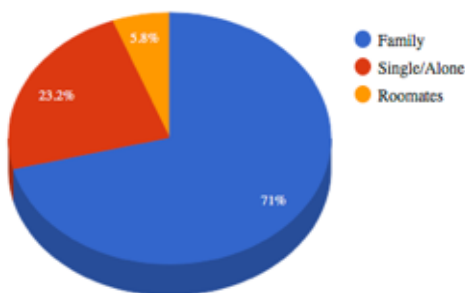


FIGURE 6: Living Structure of Respondent

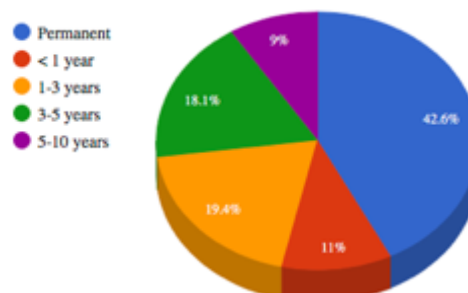


FIGURE 7: Accommodation Shifting Frequency

Respondents

To analyze the consumer’s mind-set towards bamboo furniture it was very important to understand the living style, structure, likes, and dislikes towards specific material for furniture. Is the living structure of the respondent affect the choice in selecting the furniture. So, the survey analysis stated the question about the current living condition of the respondent, what are the accommodation shifting frequency of the consumers means how frequent the respondents move with their furniture. To this analysis it was found that nearly 71% of respondents were living with their families from which 42% are the permanent resident hasn’t shifted their accommodation, rest 9% are living for more than 5 years and nearly 19% stated that they haven’t shifted their accommodation in last 3 years. Almost 23% are living alone and only 5% are staying with some roommates and accommodation shifting frequency were nearly 18% for almost 3 years and 11% were less than 1 year as shown in Fig. 6 & Fig. 7. The data received from them identified that people who are living in a permanent residence with family is looking for stylish, comfortable and durable furniture with long life span. Whereas people living alone or with some roommates are looking for cheap yet stylish and sturdy furniture.

[4.] Consumers Perceptions and Preferences Aspects

After analyzing the living style and structure it was important to analyze their preference of buying the furniture to understand what the consumer’s mind-set at the time are of buying furniture. About 29% of consumers stated that they look for better brand value whereas 28% & 25% showed willingness towards buying furniture from the local market and nearby economy shops. In the modern digital era, 18% showed interest in buying

furniture from online portals (Pepperfry, Urban ladder, Fabfurnish). Consumers were found to be brand conscious while purchasing furniture whereas huge consumers were looking for buying pocket-friendly yet durable furniture from easily approachable local artisans as shown in Fig. 8. But on preference towards buying bamboo furniture over the wooden furniture, 42% said yes on Buying bamboo furniture but for outdoor and garden area and mentioned that they can opt for bamboo furniture in the interior if the design is considered, a notable number of 53% said, “It depends on design” and improved design can induce them to choose bamboo furniture over wooden furniture shown in Fig. 9. To analyse further that what bothered them from buying or opting for bamboo furniture the respondent came up with variables like 22% said their Deficiency in designs, 20% marked inadequate branding as an important factor which bamboo furniture market is facing, improvisation on various factors. The users have shown dissatisfaction with bamboo furniture due to the lack of finishing, colors, and design. The other factors that consumers pointed were outdated & intricacy in the patterns of furniture and moreover absence of modernity in the design as per Fig. 10. “Design of furniture” emerged as a major factor that is currently influencing the purchase decision of an end-user. The mind-set of respondents towards bamboo furniture was divided. For some, it is beautiful and durable but only as garden furniture while a similar number also stating it is cheap and uncomfortable too as per Fig. 11. The respondents also stated that there is a lag in terms of knowledge of customizing of furniture, its pricing and government aids among the artisans and local manufacturer. There is a huge stagnation in the prices of finished products which causing the economic exploitation of bamboo workers and are not letting them get recognition in the urban market



FIGURE 8: Buying channel preference for furniture

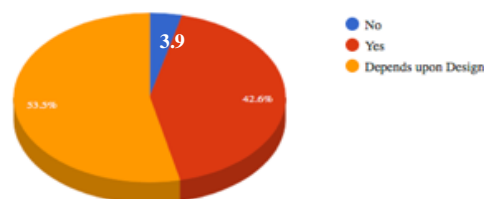


FIGURE 9: Purchase preference of Bamboo

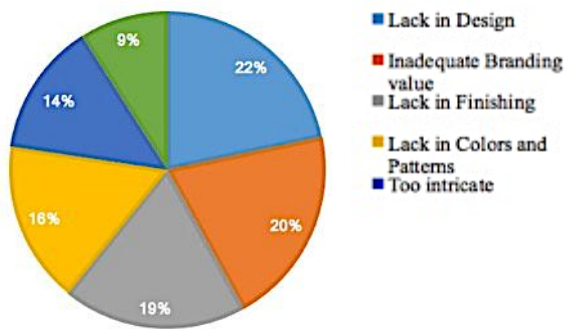


FIGURE 10: Buying preference of Consumer's

furniture over wood furniture

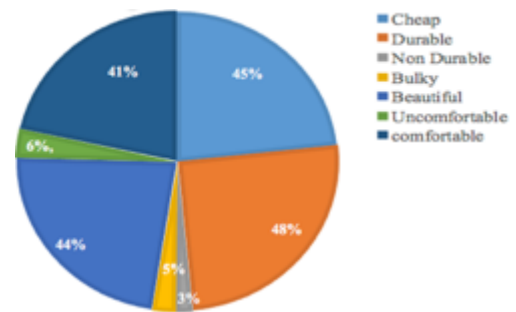


FIGURE 11: Consumers Perceptions about of Bamboo furniture

[5.] Social Awareness and E-commerce Aspects

For assessing consumer's behavior and inducing them towards any product, marketing has always been the most important tool. To calculate what will be the before and after flowing of the product and the consumer's reaction towards the product, its marketing plays an important role. Therefore, to analyze about bamboo marketing the respondent was being asked that if they have ever heard about the promotional measures and marketing of bamboo furniture to which nearly

41% said that they often heard about it on social media, 37% came up that sometimes they have heard or have seen marketing of bamboo furniture. Whereas 12% said that they have rarely heard about bamboo furniture and 10% said bluntly no to any marketing or promotion of bamboo furniture as per Fig.12. The brief analyses of the answers showed that the respondent who came up with the responses were found to be confused between bamboo and rattan and many people consider both the material the same.

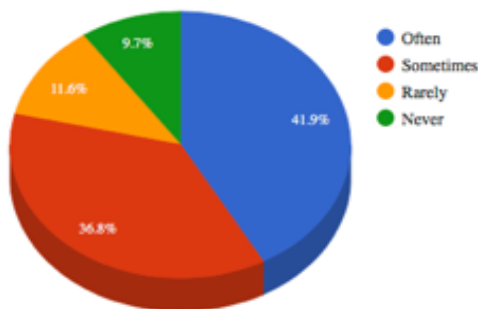


FIGURE 12: Promotion/ Marketing of Bamboo Furniture

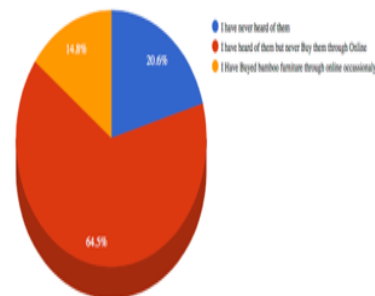


FIGURE13: Awareness on Online buying/ availability of bamboo furniture

To understand the consumer's behavior towards bamboo furniture it was important to know that how much awareness the consumers have towards the shopping of online bamboo furniture. To understand the Indian consumer's awareness towards bamboo furniture and the data received on compiling responses as per Fig.13 states that 15% of respondents were found that they have

purchased bamboo furniture from online portals but occasionally as they opted for outdoor garden furniture, 64% of respondents are aware of the availability of bamboo furniture on the online platform but never shown interest to buy them as they didn't find the model impressive and there was very less option of "pack flat or knockdown" which can be easily assembled by the consumers

and 21% respondent have never heard about the online sale of bamboo furniture. To analyze the purchase interest of the market towards bamboo furniture the respondent as shown in Fig. 14, respondent was asked about their interest towards the purchase of bamboo furniture to which nearly 5% were not in the favour to purchase the bamboo furniture whereas 17% stayed neutral. Nearly 30% of the consumers were agreeing to the purchase of bamboo furniture and 49% strongly shown interest and were agreeing to the purchase of bamboo furniture, but simultaneously they raise the concern to improve the design, material enhancement, and easy

availability. But while conducting the survey it was analyzed that design and material enhancement are not only the factors that need to be improvised to upscale the bamboo furniture market in India. Education and awareness are also the main concerning factors for both the artisans and the end consumers. Bamboo furniture in India is found to be labor-intensive, and there is a lack of skilled labour and adequate awareness among the labour and end-users to meet the demand. Due to this reason, most of the premium retail brands do not stock or display bamboo furniture's in India.

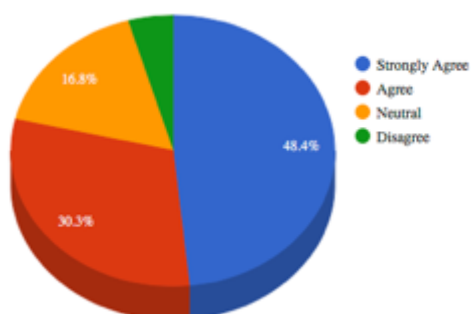


FIGURE 14: Ideology on Purchasing of Bamboo furniture

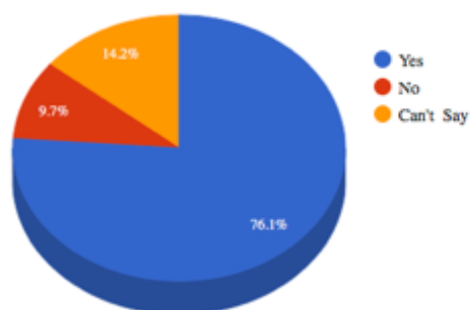


FIGURE 15: Awareness on the Strength of Bamboo

To analyze the awareness, the Indian market has towards the strength of bamboo furniture, the respondents were asked that how much awareness they have as shown in Fig. 15 to which 14% stated un-surety towards its strength and stability, 10% clearly stated that it is not stable whereas 76% respondents agreed to the strength of bamboo but also showed a dis-interest and stated that though it is a stable material the designs are outdated and outcast. They also shared that bamboo furniture can be a good

option for the exterior but for interiors the design needs improvisation. The people also have a perception that bamboo furniture is less strong and durable in comparison to timber, which is leading to their inclination towards commercial wood more. Regarding the purchase of bamboo furniture through online portals, Analyzing the above responses, it was found that consumers are willing to purchase bamboo furniture, but the lack of awareness and negative mind-set is a major constraint for the promotion of bamboo furniture.

[6.] Environmental Aspects

In the present scenario of the world, there has been an increasing concern due to Global warming. This has become a concerning issue for most countries. People nowadays are trying to find measures through which they can contribute to make the environment greener with less embodied energy. Due to massive deforestation, World-wide many countries have forbidden

cutting trees for wood and started the promotion of bamboo for satisfying the requirements of wood. In comparison to wood, bamboo growth cycle is high and takes 3 to 5 years to get mature. Its rate of carbon dioxide (CO₂) absorption and releases oxygen (O₂) into the environment is also high in comparison to the wood. Using of bamboo can add 'Green' to the nature. (Chaurasia, 2019). As per the principles of green or eco-friendly

products, bamboo for the furniture industry could be an ideal raw material as it ensures that the carbon stays locked in it till end of its life. (Boran, Cavdar, & Barbu, 2013) .To analyze the Indian consumer’s perception and their concern to the environment friendliness while buying furniture the survey question proposed as shown in Fig.16. It was found that environment friendliness doesn’t bother 6% of the community whereas 19% sometimes think about the environment-friendly

furniture and about 77% stated that environment friendliness does bother them while buying the furniture, but they quoted that the market doesn’t have better substitute of wood. The metal and plastic furniture which offers a substitution to the wood doesn’t offer the same elegancy and luxuriousness.

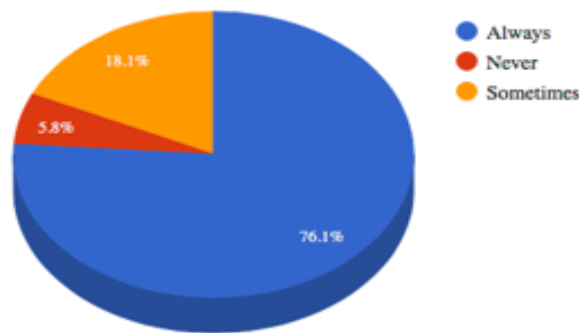


FIGURE 16: Preference on Furniture Eco-Branding

The Consumers’ motivations to purchase environmentally conscientious furniture can also play an important string in promoting ‘green’. The general awareness to the consumers & manufacturers about bamboo furniture and emphasis on its eco-friendly components can increase the number of people becoming cognizant of this environmentally friendly product (Young, Hwang, McDonald, & Oates, 2010). Bamboo in furniture industry will help in minimizing the consumption of energy & resources, will contribute to better Ecological design. This will drift the burden from nature too.

To understand the consumer’s perception that what they expect from bamboo furniture. These reasons can demark new guidelines to the manufacturer to understand what can induce customers to opt for bamboo furniture. The statements received from the respondents shown in Fig.17 indicates 42% were interested to opt for bamboo furniture only because of its eco-friendly qualities. As bamboo’s carbon storage and sequestration rate is 30-120 mg per hectare and 6-13 mg per hectare per year respectively as per (Manandhar, Kim, & Kim, 2019).

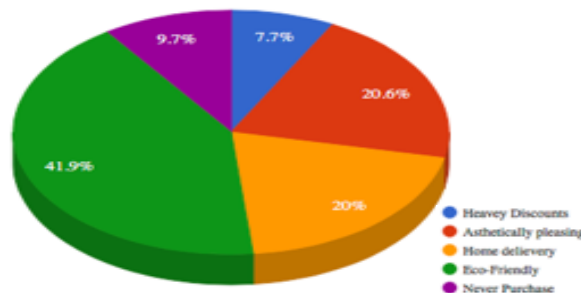


FIGURE 17: Reasons to purchase Bamboo Furniture

The increase in bamboo production and more utilization for furniture -based products will

increase carbon sequestration as bamboo is a sink for carbon than the source (Seethalakshmi, Jijeesh,

& Balagopalan, 2009). Nearly 20% came up with reasons that bamboo furniture is aesthetically pleasing and creates appealing transitions to any outdoor space. The same percentage of people came up with the thought that if bamboo furniture has possibilities of knockdown system with easy home delivery through various e-commerce platforms, they can opt for considering bamboo furniture for remodeling interiors space. To add to the other reasons 10% of people said that they have never thought of purchasing bamboo furniture as they hardly knew that bamboo is durable to cast furniture and they haven't found its designs that impressive. Whereas 8% of respondents said that they knew about new bamboo materials like Bamboo mat boards, furniture boards introduced by Godrej and Epitome for furniture and other interiors purposes, but they cannot afford these materials so if manufacturers like Godrej, etc. can lend some heavy discounts they can opt for having bamboo furniture.

[7.] Recommendations and Conclusions

The furniture industry has always been an economic driver to the Indian economy and timber furniture has always been the preference for all consumers of all sector classes. The over-demand of the furniture has resulted in the overstress and exploitation of the timber forest. Bamboo which is a possible viable alternative for furniture still been considered as "poor man timber". The paper is

focusing on why being a viable surrogate, bamboo is not being considered for furniture. Bamboo is the fastest-growing natural resource with an unsurpassed rate of biomass generation, but the material still has not been positioned for furniture productions. The Consumption values and perception explained whether consumers choose to buy a specific product, why consumers choose one material over another, and why the Indians market doesn't have any potential buyers for the material. Analyzing the consumers, it was being observed that the Indian market has a huge gap in bamboo industry. The consumer's unawareness and reluctant Design are the main factors that driving out the acceptance of bamboo. Brief study and analyzing this sector it was found that it is one of the low capital investment industries, but the industry has lots of promotional and technical barriers, the bamboo workers were found not aware of the economic value.

The analyzing the consumers and the bamboo furniture market of India. With the gradual increase in environmentally conscious customers in India, bamboo furniture has huge market potential in India. Though the Indian Bamboo workers are not familiar with its economic value and unaware of its potential market in foreign countries which if organized can tap to generate foreign exchange. The industry does have some weaknesses and threats but planned strategic measures can overcome these constraints shown in Fig. 18 adapted from (Shukla & Joshi, 2021).

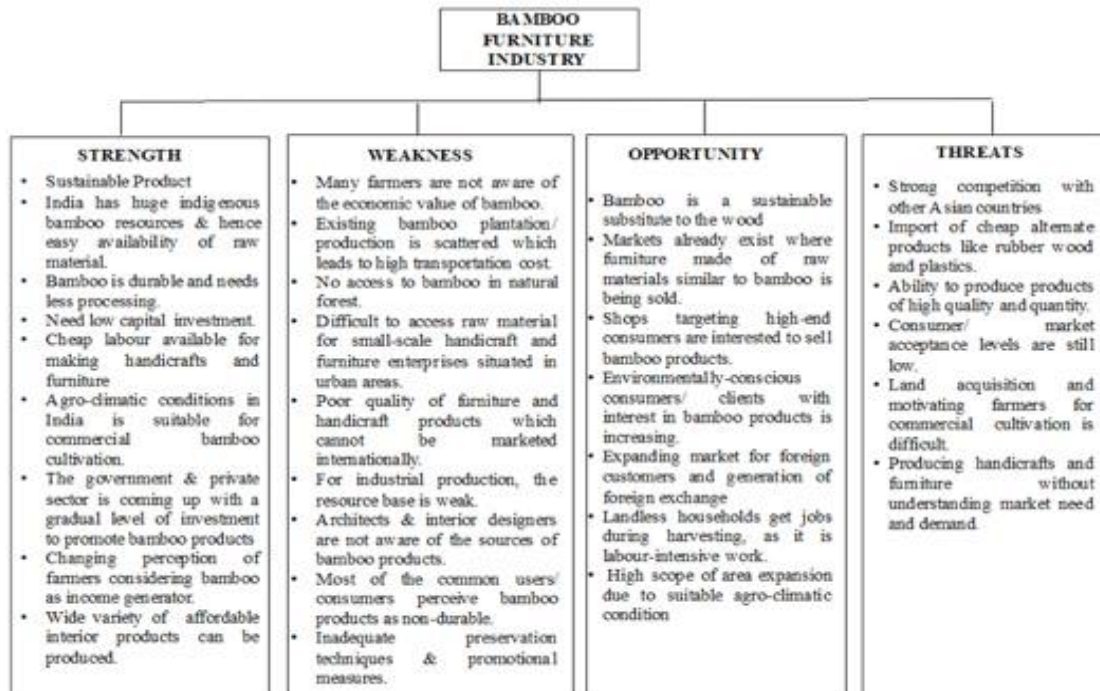


FIGURE 18: SWOT Analysis
Source: (Shukla & Joshi, 2021)

The bamboo furniture is not only facing barriers in designing but promoting and acceptability is also critical issues that need to be addressed by the policymakers. The study about the ownership structure, tenure system, plantation area, and annual production as a raw material for wood industries are important to formulate its efficiency and policies (Chaowana, 2013).

[8.1] Development Strategies Should Include Up-Scaling the Existing as Well as Future Bamboo Market to Meet the Urban Taste

The finance, management skills, and knowledge are required at all levels of furniture production from the cultivation of bamboo to the delivery of finished goods or intermediate products to the marketplace. Some strategies are needed to lower the risk of the local production and moving gradually to higher risk but higher value-added on the export products need one approach like linkages with up-market and urban centres in India (Ranjan, 2007). Step-in of government and various collaborations with financial institutions like NABARD can be an effective step to promote the bamboo industry. Many countries like China,

Indonesia, and Malaysia have formalized the mandatory use of bamboo in construction. The countries like China have removed the state marketing control and local futures markets have been piloted to encourage market-based exchange. China’s forestry to promote bamboo has come up with a highly region-specific policy, rather than species-specific (Jamatia, 2014).

[8.2] Contemporary Bamboo Furniture Design Should be More ‘Personalized’ and be in Line with the Emerging Trends Worldwide

With the growing furniture requirements, Design and looks became more important to meet the needs of the users and to satisfy these needs bamboo furniture’s needs more personalization and individuality considering the needs of the end-users. Therefore, the design of bamboo furniture should break the monotony, combine the modern environment, crowd, ergonomics, etc. from the aspects of modelling, color, and structure to increase the aesthetic feeling. Bamboo furniture needs to show its individuality (Wang, Zhang, & Zhang, 2017).

[8.3] Improvement Needs in Design Development and Should Characterize its Traditional Characteristics

Indian Culture has a spiritual annotation. In today's world of globalization, there has been seen a growth in demand in all the industries. To satisfy these needs there has been seen a sudden increase in imports which are introducing the inflow of new material and legacy of other countries. Furniture is now turned up as necessities from luxury, and a status symbol. Bamboo has always been India's Local traditional material but with moving trends, people are forgetting this material and switching to new. This has led the consumers to switch from heritage materials to modern substitutes. Generating awareness and educating the consumers can alleviate them towards bamboo which is a cultural legacy. Hence to promote bamboo furniture it's important that it should present the cultural value of its origin (Wang, Zhang, & Zhang, 2017)

[8.4] Complexity in the Supply of Furniture

There is a need for an adequate chain through which that local bamboo artisans can supply furniture directly to the intermediary manufacturer, as a result, artisans will get the direct buyer and they need not have to search for the local buyers. This will also intend artisans to get connected to the wide urban market moreover will also enhance their output as per the requirement of the end consumers. These special measures will also promote industrial outlets to produce quality products to cater to domestic and export markets with acceptable rates of return on investment (Baksy, 2013).

[8.5] Improvising in Design Strategies and Provisions

The bamboo furniture design structure in India needs to be divided into two subcategories: Pre-Design stage and post-usage stage and both these categories need a brief evaluation to promote bamboo for furniture. The pre-design stage is the conceptualizing stage, at which the design that is been developed must be functionally optimized as per the preference of the consumers. Evaluating the manufacturing costs and operating costs to analyze the value and life cycle of the product. This

functional optimization and Modern design can maximize the renewability of the product and can also alleviate them towards the new product development. The second and the most important aspect is its post usage stage which is also known as generating utility of products after its life. In today's world of globalization, consumers are looking for furniture that is eco-friendly, easy to reuse, and most importantly recyclable. Bamboo furniture can turn up to be the most appropriate solution but considering the consumer's feedback, the design should be considered with easy assembly and dis-assembly "Knockdown or Pack flat" form. This will increase the life span of furniture. The bamboo also fulfils the needs of recycling of materials after turning into scrap primarily it holds the carbon-di-oxide which is been absorbed from the atmosphere at the time of its cultivation and retains it even it's been carved into furniture and after its product life cycle, it can be used reused for making other sub-products like straw, Bamboo bottles, jars, bamboo handmade paper and coal that are too sustainable. So, bamboo is one of the products that have a continuous life cycle and using it as a substitute for wood can release the stress on timber and will be an adequate measure to promote a sustainable cycle with help of the furniture industry.

Appendix

Link of questionnaire filled by the consumers through online platform <https://moaform.com/q/CRof25>.

Acknowledgments

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