

Comfort Times

by ISPF



How home improvement sector will push mattress sales?

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Our Creations

*Our in house designers develop personalized designs daily to our customer's needs.
An extensive library of more than 300 000 designs is readily
available to browse together with the customer.*



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How home improvement sector will push mattress sales?

The complementary effect of one industry over another is obvious. But is it substantial and manifesting in the current scenario?

Editor

S. Sundaresan

Editorial & Advisory board

Indian Sleep Products Federation
A/5, Veerabahu Nagar,
Pettai, Tirunelveli - 627 004
India

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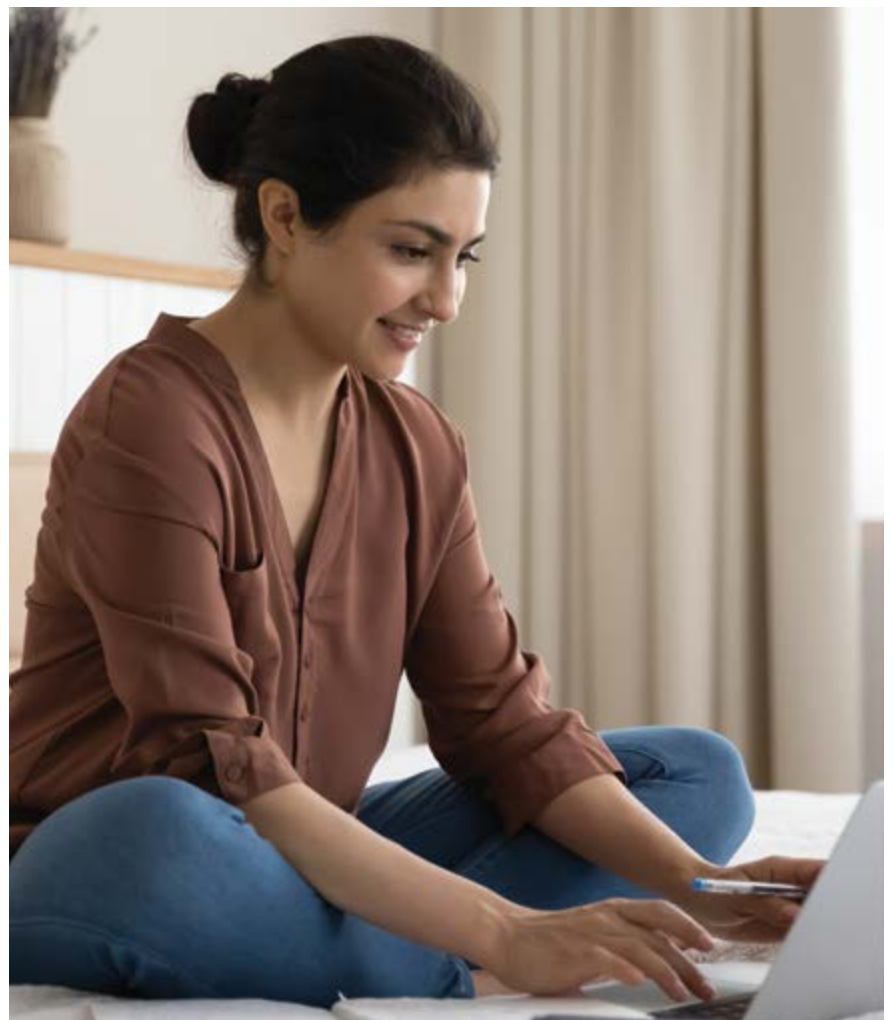
**Editorial correspondence
may be addressed to**

Editor,
Indian Sleep Products Federation
A/5, Veerabahu Nagar, Pettai
Tirunelveli-627004
India
OR
email: ispf.0813@gmail.com

<https://www.ispf.co.in/>

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Affordable luxury- Not a paradox

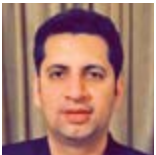
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A good night of sleep- goes far – into a good and productive day

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IPs and Innovation do matter for the mattress industry. They will help the industry achieve value-based growth

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FROM THE EDITOR



Congratulations everyone,

We survived and conquered a very tough challenge as we went past 2021. From a personal as well as a business point of view, it was a formidable year for most of us. Step by step, we got vaccinated against many threats and with sheer grit we came together to become immune to the aftermath (physical, emotional and business-related) of the Covid crisis.

It was a year when we had to pull up our socks and get out of our dens. We had to make sure that business trajectory comes back on a revival pace as soon as possible. It was a wonderful year of many stories of resilience, reboot strategies and getting back to consumer confidence in the industry.

Strikingly, this big and strategic reboot button has also switched on many tactical-level changes. These changes are visible on the upstream as well as the back-stream sides of the mattress industry. On the manufacturing side, we are putting a staunch emphasis on lean manufacturing and sustainable approaches. On the consumer-facing side, we are embracing completely radical concepts like modularity, direct-to-consumer models and design innovations. We are also playing smartly when it comes to domino effects from adjacent industries like the real estate and home improvement ones.

Do enjoy our analysis of how D2C and modular approaches can disrupt the industry. We have also tried to understand the role of IP

and practical side of innovation and research efforts in one of the stories in this issue. There is a special feature on trends that will dominate the industry in the year to come. In this issue, you will discover a lot about how these changes are happening and redefining the contours of our industry.

But above everything else, the industry has to make the most of the rise in health awareness that the crisis has injected consumers with. Focus on sleep, personal health and holistic wellness – these are emerging forces that we have witnessed in the last two years. And there is no way we can let them fizzle out. As an industry, and also as a responsible world citizen, we have to make sure that we remember the lessons learnt from this crisis. It's time to keep reminding the consumer about the importance of health, and, hence, of sleep. It's time we address that focus with apt innovations in mattress design, sleep accessories, sleep-assistive technology, consumer-centric ideas, distribution and after-use mattress economy. Junk sleep is something that we need to get rid of – and it is our responsibility as an industry to help people do that.

Clearly, there is a lot to be done. As we step into a fresh new year, hope we can cement the insights from the crisis and use them to carve a future-ready industry. I hope that you will enjoy this issue that is a small endeavour to keep you abreast with these small, and big, changes. As always, we hope to hear your suggestions, feedback and observations on the issue as well as on industry trends.

S. SUNDARESAN



ISPF

INDIAN SLEEP PRODUCTS FEDERATION

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SERVICE

INNOVATION

CONSUMER
EXPERIENCE

ISPF VISION

- ▶ To promote the sleep products industry by enhancing consumer awareness on quality sleep, while setting benchmarks for its products and services.
- ▶ To represent the industry with a commitment to the society and the environment.

Launch of Sleepwell's new website for the digital age

Sleepwell, the leading comfort solutions brand from Sheela Foam Ltd., in keeping with its future forward approach, has rolled-out an all-new website (www.mysleepwell.com) targeting the new age consumer. The website aims to strengthen Sleepwell's online brand presence and revolutionise the way people shop for mattresses. The new platform offers a seamless experience by taking 'personalised comfort' to an all-new level ensuring that each customer's journey to discover their 'own' mattress is unique and personal. Sleepwell's new website has been made to cater to every individual's requirement and to make online mattress buying more experiential. The all-new Website comes with unique Industry first features such as:

Mattress Selector- empowers a consumer to choose the right mattress based on their own personal preferences.

Novel categorisations- gives greater depth to the brand, where the focus is not just on the product but on the role of a mattress in a consumer's lives.

Comparator- for comparing between different mattresses and help with decision-making.

Visual appeal- soothing and refreshing, slice of life mood shots and richly illustrated product communication.

The customers get to experience various features including receiving filtered and relevant information based on their location and being directed towards discovering and choosing the right mattress, pillows and bed sets to make their experience enriching, smooth and hassle free. It's the first website in the category that establishes thought leadership through superior user experience, revolutionising the way an Indian shops for comfort solutions.

Orthopedic Mattresses – Cutting the chase in Indian Mattress Space

Sleeping on sunken beds or wrong mattresses can adversely affect your quality of life. Incomplete sleep is often the primary cause of perpetual tiredness and recurring backaches. A goodnight of sleep is of utmost importance for overall well-being. This however is not possible, unless supported by a comfortable mattress. Orthopedic mattresses are designed as a viable solution for sleep-deprivation due to poor bedding quality. They are crafted to support your spine, enhance comfort, and improve overall sleeping posture. From promising startups such as Wakefit to veterans such as Nilkamal and Duroflex have expanded their portfolio to include orthopedic mattresses. Doctor Dream by Nilkamal introduced the Max Cool Gel

Orthopaedic Mattress - a novel concept of triple-layered orthopedic mattresses. The top layer comprised of given foam, is covered by a memory foam, and the bottom layer was pure PU foam. The mattress promises to provide a wholesome sleeping experience.

Sleepyhead – the online only subsidiary of Duroflex also offers 3-layered medium orthopedic memory foam mattress. To cut the chase, the company is offering 100 night trials, simple unboxing, and removable and washable outer fabric.

With options galore, orthopedic mattress sales are picking up in India. As companies aim to cut the chase, remarkable innovations in orthopedic mattresses are on cards.



Peps Launched Peps Cameo - India's First Ever Jersey Mattress

Makers of India's top-selling spring mattress, Peps Industries Pvt. Ltd., has introduced one-of-its kind mattress to their portfolio of intelligently crafted sleeping solutions, under the name Peps Cameo.

The novel mattress made of jersey fabric will be available exclusively across Peps' Great Sleep Stores.

Peps Cameo is launched with a tagline "A celebrity unlike other, and you deserve nothing less," at a red-carpet themed product launch event. The new mattress is designed to cater a plethora of consumer problems. The brand however highlights 12 of the most noteworthy qualities, which combined support, comfort, and aesthetics to create a unique mattress that is "celebrity" among competitors. Besides its eye-catching digital print

to make the mattress stand out as the star of the room, it is integrated with zero-disturbance technology to aid undisrupted and comfortable sleep. The key highlight to this new inclusion in Peps' portfolio is the use of jersey fabric. In doing so, the brand offers a multitude of benefits such as stretchy fabric to offer greater flexibility and enhanced sweat absorption, which has made the material highly sought-after among athletes and sports persons.

To complement the hybrid model of mattress sales, Peps is expanding both its online and offline presence. Consequently, a dramatic increase in the number of Peps' Great Sleep Stores were reported in 2020-2021. Peps currently has 109 stores across India and plans to add another 41 by the end of 2021.

Sleep specialist helix unveils first ever flippable mattress for kids

Helix Sleep launched a new mattress, exclusively designed for children and it is completely flippable. The Helix Kids mattress has a unique design that 'grows' with your kids to continue supporting their needs as they get older. To achieve this, Helix Kids mattress uses a firm and a soft side with specific age recommendations provided for each. The firmer side is recommended for younger children who want additional support to 'assist development of their growing bodies,' while older children would undoubtedly prefer the softer side, which is designed to provide optimum comfort while remaining supportive.

It is not a surprise to witness such a high build quality and the usage of premium, non-toxic materials from Helix, one of the greatest mattress brands in the world. The mattress, for

example, has CertiPUR-US certified innersprings and long-lasting bespoke foam layers that are free of dangerous chemicals. The cover is antibacterial and water-resistant, which helps to keep the surface clean and fresh even after spills.

A microbe shield is included in the mattress cover to combat odor-causing microorganisms. The soft hypoallergenic Tencel material, which is gentler on delicate skin, is another characteristic, which makes cover unlike any other conventional mattress. Tencel is extremely breathable and easy to keep dust and allergies away from. This eight-inch hybrid mattress in a box has five inches of innersprings, as well as unique foam layers for a snug feel, on top of sufficient support and durability, because no kids bed is complete without a little bounce.



World's first renewable mattress launched

Nest Bedding, a family-owned and run mattress and bedding factory direct brand, which specializes in organic, natural, and certified luxury items, has announced launching the first renewable mattress with impressive new design and an unfathomable renewal program.

In line with Nest Bedding's longstanding commitment to offer sustainable sleep solutions, the launch will allow consumers to replace the comfort layer on chosen mattresses from the brand's best-selling array, extending the life of the product, and eliminating the need to replace it. Next Bedding also will renew chosen mattress with updated designs and names that complement the company's goal to offer state-of-the-art sleep

solutions, subsequently expanding trial time offered to consumers from 100 to 365 nights.

The unique Lifetime Renewal Program by Nest Bedding comprises programs and policies, exclusively meant for extending longevity of the brand's offerings in tandem with overarching goals of preventing mattress waste in landfills, while creating eco-friendlier options for consumers.

The new program and product design engineered Nest Bedding's mattresses to last two to three times longer than a typical mattress, while treating customers with the choice of redeeming a new, feel free trial either within their 365-night trial or any other time span as agreed upon after purchase.

Avocado green mattress launches responsible fashion

Award-winning makers of bedding and mattresses, Avocado Green Brands (AVG) have launched two new brands, Hass and Reed + Gwen. After setting standard for sustainability in the mattress industry, Avocado is gearing to carve a niche in the fashion and beauty sector.

Avocado Founder and CMO Mark Abrials has reiterated the brand's goal of advocating social and environmental responsibility. By expanding into responsible fashion and beauty, AVG aims to become a greater force to reckon with.

The Hass apparel launched by AVG includes organic everyday essentials such as alpaca sweaters, and Lenzing certified leisurewear. The brand will harness natural, organic, and innovative materials to work with nature and not against it.

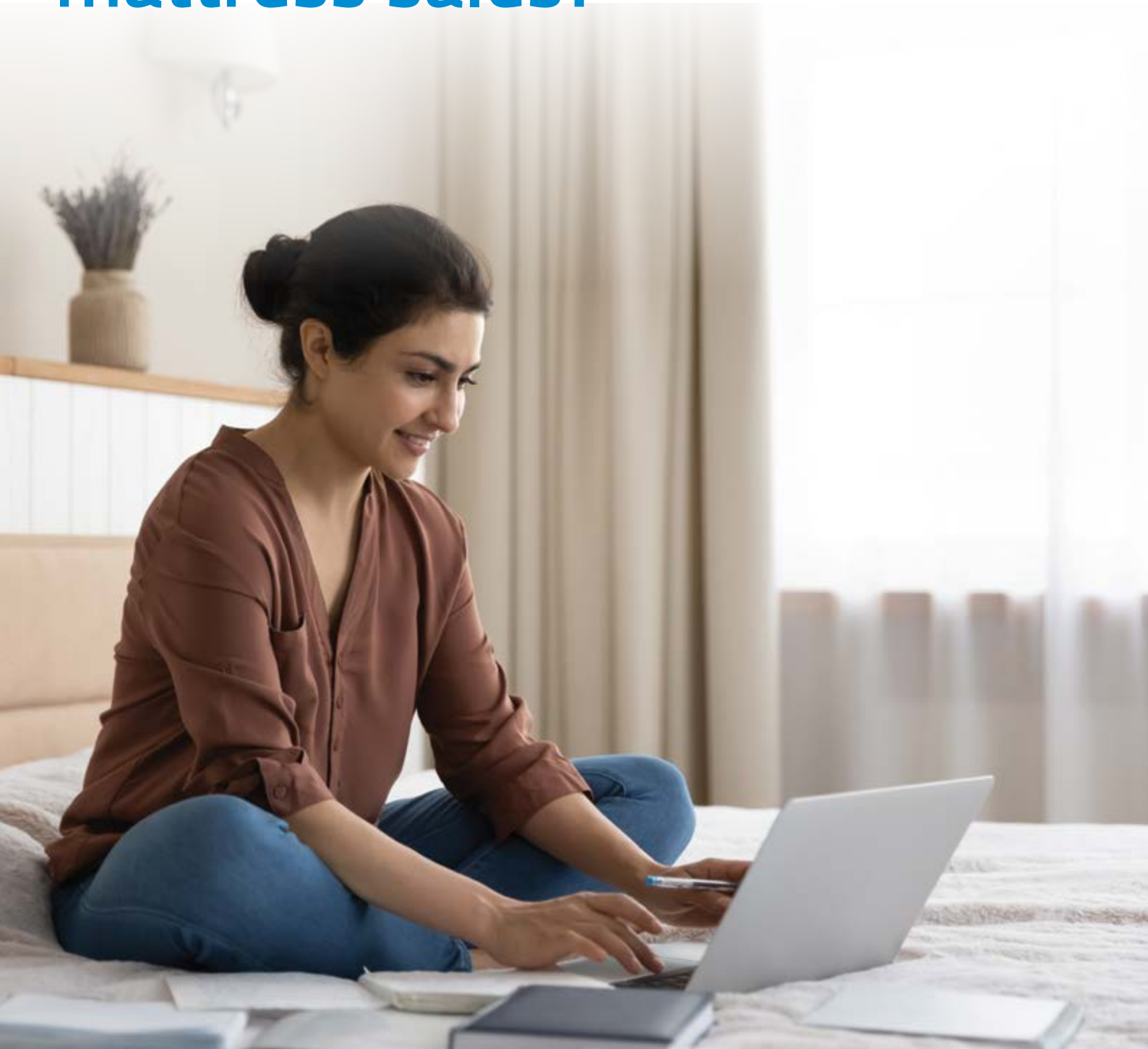
Mattress giants make deeper inroads in Southeast Asia bedding industry

Some of the leading brands like Pran-RFL Group are seeking to make a footprint in South East Asia mattress and bedding industry space.

In more recent times various leading names in the mattress industry claimed their stakes by registering their investments. Expo Group, Dhaka Foam and Akhter to name a few are pulling up their sleeves to carve a niche in the highly competitive bedding industry. This stir in the mattress and bedding industry has been successful in attracting overseas foreign players with prominent logos like Mayfair, Feather, Dollie and I-sleep, who are claiming to take a big bite on the cherry.

How home improvement sector will push mattress sales?

The complementary effect of one industry over another is obvious. But is it substantial and manifesting in the current scenario?



Tea and Sugar. Pizza and Cola. Real Estate and Home-improvement Industry. In a normal market condition, the rise and fall in one's graph is corresponded by a jump and slide in another's curve too.

But this echo sound tends to get louder in abnormal circumstances. Like the pandemic. If an average surge in demand for housing leads to a hot appetite for home products, mattresses and appliances; imagine what happens when the very definition of 'house' changes? That's what the pandemic did.

House- More Than a Parking Spot Now

Remote-work and distributed workforce trends have completely changed the way people look at their abodes. Now a home is not just a name-plate. It is not the place you forget the minute you leave for office and life. It is the new epicentre of work and life. It is where all the stuff happens now – from zoom meetings to family chats to Netflix to sleeping.

And the shift shows not very strong signs of a big rewind button soon. The future of work could be a mix of in-person, remote, and hybrid work. This is a change that will likely nudge consumers to head more to single-family homes in the suburbs than multi-family units within the city, as some Deloitte's estimates also point out. A shift to larger homes with adequate space for home offices will translate to higher spending on home office furnishings and home utility services compared to pre-pandemic levels.

That's why the way real estate grows and where it grows will matter a lot from now on.

Real-Estate Growth – Well-cemented

According to the latest report by Colliers India, Institutional investment in real estate could go up by four percent to \$5 billion (Rs 36,500 crore) during the calendar year. Investors may be looking to snap up properties at attractive valuations amid the COVID pandemic.

Industry experts remind how in times of economic slowdowns and



As many as 103,238 units were launched during H1 2021, a 71 percent increase YoY. It is also noteworthy that the launch volumes in a pandemic impacted period like H1 2021 was 20 percent higher than the relatively unaffected H2 2020 period. India's projected GDP growth for FY22 is 9.5 percent

Source: Knight Frank Research

increasing inflationary pressure, 'hard assets' like real estate have historically seen increased traction as a calculated hedge against inflation.

As the inception of REITS and fractional ownership platforms in India gets strong, the demand and share of the CRE industry can be amplified with the increasing participation by retail investors.

The market was on a good trajectory in 2019 itself. Home sales stayed resilient in 2019 despite weak economic outlook and new launches grew 23 percent y-o-y in 2019, as gauged by Knight Frank India.

Knight Frank India's report 'India Real Estate: H2 2019' had observed that despite headwinds of economic slowdown, Indian real estate sector recorded an overall growth in 2019. The

residential segment in top eight cities of India demonstrated an unexpected resilience. It also saw how total sales volume went up as affordability improved, and developers aligned themselves with the needs of home-buyers by reducing ticket-sizes and unit-sizes. Also, unsold inventory across the top eight markets improved in 2019, with a 5 percent decline. At the launch of the report, Shishir Bajjal, Chairman and Managing Director, Knight Frank India had indicated that after a slew of policy measures such as RERA, GST and demonetisation, the developers' community is steadily coming to terms with this new normal and finding its footing. He also indicated that affordable and low-cost housing would continue to be focus-areas for builders as they align themselves with the needs of home-buyers.

Let's also look at the Global House Price Index which tracks the movement in mainstream residential prices across 55 countries and territories worldwide. It showed that 33 percent of markets recorded 10 percent+ annual price growth. As per Knight Frank data, the pandemic-induced housing boom continues with prices rising by 9.2 percent on average across 55 countries and territories in the year to June 2021.

If we break this down by developed and developing economies, we notice that ten of the world's developed



economies averaged price growth of 12 percent in the 12 months to June, double that seen in key developing markets (4.7 percent). About 18 markets registered double-digit price growth, up from 13 last quarter and seven a year ago. But there were only two markets that saw prices decline in the year to June 2021 – India and Spain. However, this is the lowest proportion of markets registering a decline in prices since the Global House Price Index commenced in 2008. The data also suggests that despite strong price growth there are signs of softening demand in some markets.

In its latest half-yearly report 'India Real Estate', which captures key developments in the residential sector across top 8 cities in the country, Knight Frank India Pvt Ltd. observes that during its review period, the residential segment performed remarkably well.

Sales across the top 8 cities grew by 185 percent YoY in Q2 2021 and by 67 percent YoY in H1 2021.

What is remarkable here is that the enhanced consumer perception of owning a house was supported by low home mortgage rate, competitive house prices and developer-driven flexible payment schemes. In fact, in markets like Mumbai, Pune and Bengaluru, government intervention, through stamp duty cuts, also served as a catalyst to add a new spark to latent demand. Further estimates hint that with rapid vaccination progress and economic aspirations to return to normality, there would be an improved activity levels once important vaccination milestones are achieved.

Rajani Sinha, Chief Economist and National Director, Research outlined here that *"The Indian economy had*

started to recover from the first wave of pandemic before it got hit by a second wave in March 2021. The lockdown imposed during the second wave was regional in nature and less restrictive. Hence, the immediate economic impact has been relatively less severe. However, the damage to health and life in the second wave has been brutal, resulting in deeper scarring of consumer sentiments." She points out in the report that the critical aspect for India's economic recovery will be increased consumption spending, as Private Final Consumption Expenditure contributes 56 percent to India's GDP. *"Consumer sentiments though have been severely impacted by the pandemic, more so by the second wave that has been debilitating to human life. The second wave has also had a severe impact on the rural area compared to the previous wave. As per RBI's Consumer Confidence survey, the current situation index (CSI) in May 2021 dropped to a low of 48.5, lower than that seen after the first wave of pandemic. In the current situation, what is needed is direct demand boosting stimulus measures from the government to aid consumption revival. Any kind of tax cut even for a limited period of time, will help provide the much-needed boost to consumption spending as was seen with the stamp duty cut in Maharashtra."*

The report tells how the impact on residential market traction has been seen more as a speed-bump rather than a major obstruction, especially as sales volumes have shown a strong growth of 67 percent YoY to 99,416 units. Volumes during H1 2021 jumped 5 percent compared to H2 2020, and this was not impacted by the resurging pandemic.

INDIA MARKET SUMMARY

PARAMETER 2020	CHANGE (YOY)	H1 2020	H1 2021	CHANGE (YOY)
Launches (housing units) 146,628	-34 percent	60,489	103,238	71 percent
Sales (housing units) 154,534	-37 percent	59,538	9,416	67 percent
Unsold inventory (housing units) 437,924	-2 percent	446,787	441,742	-1 percent

Quarters-to-sell (QTS) 10.1 - 10.1 10.9 - Age of unsold inventory (in quarters) 16.7 - 16.4 16.9 –
Note – 1 square metre (sq m) = 10.764 square feet (sqft)

Source: Knight Frank Research

Protect your loved ones also while they sleep.



Your mattress attracts all kinds of germs. Effecting not just your health, but that of your loved ones too.

Thankfully, every Sleepwell product is treated with Neem Fresche technology that protects you from -



Dust mites



Allergies



Breathing disorders

Mattresses | Bed Sets | Pillows | Mattress Protectors | Furniture Cushioning

Who is improving their homes and where?

On the basis of buyers age, the 35-54 segment led the market in 2020, in terms of revenue, and under 35 is anticipated to register the highest CAGR during the forecast period. On the basis of city type, the metro cities segment led the market in 2020, in terms of revenue, and the other non-metro cities & towns segment is anticipated to register the highest CAGR during the forecast period.

Source: Global Opportunity Analysis and Industry Forecast, 2021–2030, Home Improvement Services Market, Allied Market Research

This brings us back to the shift in the significance of a 'home'. As human mobility became extremely restricted and people stayed indoors for the better part of the past 15 months, this vastly increased the perceived value of one's home in the overall scheme of things.

The report also talks about the increased need of the homebuyer to own a home, lower house prices, low interest rates and stamp duty cuts in some key markets, as the primary drivers of increased sales traction during H1 2021.

What's also helping the momentum is how Developers have upped the ante by launching new projects to capitalize on the improving sentiment despite a significant rise in the cost of input material such as cement and steel. The impact on development activity during the second wave was comparatively lesser as the exodus of labour was better managed with developers committing to arrange their accommodation on-site.

There are clear signs of resilience in the residential market during H1 2021 despite being impacted by a resurgent pandemic. It is a reassuring to see that the industry continues to consolidate with residential developments steadily shifting into the hands of stronger developers who have been able to weather the economic storm created by



According to Colliers India, Institutional investment in real estate could go up by four percent to \$5 billion (Rs 36,500 crore) during the calendar year. Investors may be looking to snap up properties at attractive valuations amid the COVID pandemic

the pandemic. Also, homebuyers have manifested a strong preference for ready inventory to hedge any execution risk by developers. They have, nonetheless, been more willing to commit to under-construction properties with a Grade A developer at the helm.

Be Ready for the Mirror-Effect

As we see real estate, specially residential housing, is picking up a good direction, we also see hints of new appetite for all that it will eventually translate into. When people buy houses, or when they invest more in their current environments, they will look

for products, innovations and services that make these homes better and comfortable.

From furniture, interior design, to fittings, furnishings, mattresses, accessories, smart home products to adjacent services – the home dweller, even if s/he starts working in normal ways again, will look for concrete answers.

This would be driven by many factors:

1. An increased realisation of the importance of a shelter experienced in first-hand ways and through stories of others struggling during the lockdowns
2. Problems of lack of space and comfortable furnishings faced during the pandemic with extended home-stays
3. Heightened, and fear-driven, awareness of health cascading into more attention to sleep wellness and fitness
4. Deep-cleaning projects undertaken during idle time in lockdowns have injected a new love, ownership and passion for a better home in the customer and also highlighted many areas of improvement, repair and refurbishing
5. A proliferating market of smart home solutions and tech-assisted living
6. New breakthroughs and ideas available in actual markets in

Specific Corridors Worth Walking Into

1. Exterior replacements held a substantial revenue share of over 18.6 percent in 2020.
2. The exterior replacement end-use segment will dominate the overall market due to rising demand for aesthetic design, high energy efficiency, and low maintenance.
3. Exterior replacement activities add unique value to the housing appearance along with enhanced performance & durability.
4. Effective renovation projects pertaining to the exterior environment will improve the safety & security features of a particular house.
5. DIFM will influence the home improvement industry and is anticipated to grow at a CAGR of 4.2 percent owing to the rising consumer demand for quality workmanship, guaranteed results, and high convenience.
6. The supplementation of existing skillsets with additional expertise along with the utilization of marketing automation tools to their fullest capabilities will further provide a strong outlook for business expansion.

Source: Report from Global Market Insights Inc.

1. Considerable rise in interest rates and property costs
2. Growing expenditure in the modernization of aging infrastructures
3. Advanced material technologies like self-healing concrete cracks, kinetic paving, and 3D printing structures
4. Jump in the global residential property prices – they have been seen at their fastest rate since the last few years in both developing and developed countries
5. Surge in the global residential property prices – as per some figures, they have risen by 60 percent in the past 10 years
6. Expected gains around customizability, energy efficiency, and appropriate protection of the property
7. Increasing, and easy, adoption of automation and installation of smart & energy-efficient devices
8. Acceptance of enhanced materials and IoT technologies among architects, interior designers, house decorators, DIYers, and home builders
9. Rise of the DIFM (Do It For Me) industry which is receiving a new thrust from both customer demand (millennials and busy couples) and from the range expansion and services added by industry vendors
10. Advancements and simplification of 3D printing have enabled homeowners with the ability to customize with exceptional decor items
11. Lower lending rates and rising land costs
12. Growing population, increasing employment, growing urbanization, internal and external migration
13. Need for, and available resources for, for personal expression throughout one's home
14. Fluctuations in mortgage and housing loans due to which people face a challenge for managing EMIs and budget. Then they opt to spend on home renovation instead of spending huge amounts on new houses. A similar drift was observed during the pandemic also when people channelized their wallets to home improvement projects

- accessible and affordable formats
7. A big surge in healthcare industry and focus on personal health after the bitter lessons of the second wave
 8. An expanding ecosystem of healthcare that now includes last-mile players like sleep wellness industry too apart from pharma majors, professionals and distributors
 9. Emergence of mental health as a serious issue leading to people now more alert and inclined to investing in personal health and well-being
 10. Never-before gravity discovered for me-time which can translate into more involvement and spending on personal products like mattresses, lounge furniture, bed accessories

The last few quarters have been a refreshing paint for the home improvement market – a change that has some big strokes.

As per estimates from Allied Market Research, the home improvement services market size reached \$316.8 billion in 2020. It is still growing and is expected to touch \$585.3 billion by 2030. According to the research team's experts – *"The home improvement services market was initially hampered owing to restrictions on construction activities. However, the market started recovering as lockdown restrictions were uplifted."*

Global House Price Index showed that 33 percent of markets recorded 10 percent+ annual price growth. As per Knight Frank data, the pandemic-induced housing boom continues with prices rising by 9.2 percent on average across 55 countries and territories

If we look at Research and Markets' estimates, they put the market for Global home improvement at around \$1975 billion by the end of 2026, growing at a CAGR of over 5.63% during the forecast period.

A fresh wave of appetite has been seen for home improvement services companies that offer cleaning, renovation, and restoration services to residential customers.

The drivers, as noted, by various think-tanks and research firms are as follow:

Knight Frank India Pvt Ltd. observes that during its review period, the residential segment performed remarkably well. Sales across the top 8 cities grew by 185 percent YoY in Q2 2021 and by 67 percent YoY in H1 2021



15. Projects that entail remodelling of newly-bought old homes
16. Visible explosion in innovations by various players and growing popularity of improving home décor
17. A substantial rise in DIY culture around the world which was accentuated in a strong way during the pandemic
18. Easy availability of assistance through YouTube videos, professional courses, and availability of advanced tools – again a factor that got stronger during the lockdowns

When we look at product revenue from the property improvements end-use segment, this is estimated to touch \$152.6 billion by 2027. Global Market Insights shows that an increasing number of nuclear families will boost the growth of group societies, apartments, and individual housing. It also augurs that changing lifestyles and consumer inclination toward convenience living will drive the market for property improvements.

Note that property improvement structures include porches, garages, and other outbuildings. As to Non-structural improvements, this segment comprises gates, fencing, walkways, cycle tracks, and driveways. Again, a space where real estate market has a direct effect on home improvement space.

Also worth noting are the

DIFM and DIY segments here. As ResearchandMarkets' report spells out – Consumer preferences are shifting towards DIFM. It's a segment that accounts for approximately 55 percent of the global home improvement market. Home improvement work performed by millennials in developed countries is being outsourced and the remarkable jump in DIFM projects has contributed to the consumer sentiment of "don't move, improve" as a result of the steady rise in property prices and income tax costs. It is expected that access to a wide range of design and texture options in house restoration will help to propel business growth.

According to USP Marketing Consultancy perspectives in an analysis, there was a slow, but gradual, shift towards more DIFM in the total amount of home improvement jobs done in Europe. In a span of 4 years, the share of DIFM jobs gone up from 33.5 percent to 37.5 percent. But recently, cost of labour increased, which had a dampening effect on the share of DIFM and a positive effect on the share of DIY in the total. There is another aspect that encouraged more DIY jobs related to higher costs and lower availability of professionals.

Dirk Hoogenboom Research Consultant at USP Marketing Consultancy, called 2019 the pivotal moment in his analysis on the space.

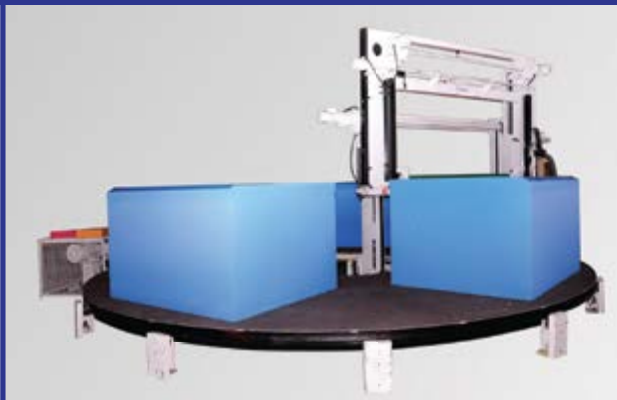
"This moment was reached where the demand and supply were no longer in balance. This could have more or less sorted itself out. We clearly see that there are many companies who want to jump into this market segment. From DIY retail chains offering installation services to more Eastern European workers and local semi-professionals (white van guys) offering their services. But we saw the share of DIFM drop down even further in 2020 (and this is also expected for H1 2021). As to what next, as a broader audience than normal experienced doing DIY jobs and in many cases both improved their DIY skills and enjoyed doing the jobs much more than in the pre-corona situation." He opines in his blog.

No wonder we see a lot of players like Asian paints and even some mattress industry players enhancing their focus and expanding their offerings in this space. As per some latest media reports, the home improvement business continued to scale up in a significant manner for Asian paints, registering its highest quarterly revenues, and was aided by strong alignment with the projects business. The company is now present in the home improvement and decor segment, and its portfolio covers bath and kitchen products, lightings, furnishings and furniture.

The booming population, growing real-estate, purchasing power, nuclear family, double income and lifestyle has



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AS ENTERPRISES



changed the whole dynamics of home mattress industry, notes Dr. Veena Tripathi, Leadership Coach- Work-Life Harmony, Author, Consultant and Associate Professor, Jaipuria Institute of Management, Ghaziabad. She opines that the ongoing tendency of work from home has oscillated the home furnishing designs. *"Despite, work from home could be turn as a temporary trend is still questionable. Yet, the prerequisite of home space has emerged as an accommodation to work, play, exercise, get-together and relax. Consumers has started spending in soft furnishing. Home decor, wall decor, lighting and multi-purpose furnishing had received a steep growth. There are strong evidences in the changing behaviour of consumer attitudes and purchasing tradition specifically for home improvement segment."*

Don't say Xerox yet

Incidentally, the Allied Market Research points out the setbacks on construction, manufacturing, and oil & gas industries due to the Covid outbreak. It explains that when construction activities were stopped or restricted to a huge extent, and when manufacturing and transportation activities along with their supply chains were hampered on a global level – this dent also reflected in the home improvement services space and directly hampered its growth. But then, the market gained stability in third and fourth quarter of 2020. The report surmises that gradually, all

industries are resuming their regular manufacturing and services and this is further expected to lead to re-initiation of home improvement services companies at their full-scale capacities, which is expected to help the market to start to recover by mid-2021.

But Global market Insights cautions that an upsurge in raw material costs may pose a key restraint in the home improvement market growth. This would be due to changing labor laws across several economies. What can also pose a major challenge in the market is a lack of efficiency in the production processes and service operations across the entire supply chain.

While real estate can create an echo for the mattress industry, it is incumbent upon industry players to make sure this effect is well-translated and positive. They need to learn from their counterparts in international frontiers as well as from other pioneers.

The fillip that home improvement has got, and may keep getting, due to the real estate dynamics are worth leveraging. Both the DIY and DIFM customers are ready and looking for new solutions that enrich their home improvement projects. It's a great time to enter and expand in this space. It is a great time to 'improve' one's strategy and redecorate one's portfolio. Time to rearrange some strategic furniture.

Because real estate and home-improvement may not be just tea and sugar anymore. In a world where health and personal care have assumed a new significance, it is better to compare their economic Tango to a tea-cup and tea. And right now, the tea-leaves' reading in this cup are pointing at a bright future. **CT**

KEY TAKE-AWAYS

1. Growing housing demand has been increasing the sales of mattresses in the residential market all over the country.
2. Rise in income levels and health consciousness and growth in the real estate and hospitality sectors will push sales in 2022.
3. Home & Living market in India stands at USD 30 Bn comprising furniture and home furnishing. Furniture contributes to ~60 percent of the market while home furnishing constitutes 40 percent of the market.
4. The furniture channel is critical towards new demand for mattress sales in India, as it contributes 50 percent to total sales



Why IP and Innovation are important for the Mattress Industry?

IPs and Innovation do matter for the mattress industry. They will help the industry achieve value-based growth

Why do we remember Graham Bell as the inventor of our beloved phone, instead of Elisha Gray and Antonio Meucci?

May be because he was not just smart enough to create something great with a working model. But because he was clever enough to make sure his design was the first to be patented.

The year was 1876. And yet Elisha Gray, a professor at Oberlin College, who applied for a caveat of the telephone on the same day as Bell did, failed by just some inches of time. Turns out that Bell's lawyer got to the patent office first on February 14, 1876. His entry was the fifth one on that day; and that of Gray's lawyer was 39th.

We stand many many decades ahead

today and, yet, those tiny seconds on the clock and those legal experts matter as much. In fact, they matter more. It's an era where ideas and information travel at the speed of light. That's why for any player to come up as a top-notch name in its industry, it is not just advisable, but critical, to invest in intellectual muscle. It is equally important for players that are already in the A-bracket to stay on the edge of innovation.

From competitive mileage to customer comfort, the wheels of IP and innovation mean a lot.

Just glance at some recent headlines and you would get the picture.

Ideas and Market-Sheen: Not Strange Bedfellows

Recently a mom-and-daughter duo showed an idea at the Shark Tank, and then took it to the next level. It's for a product called Slumber Pod. Katy Mallory and her mother, Lou Childs, got a utility patent for these blackout privacy sleep pods for babies and toddlers. This was invented because Katy's 1-year-old daughter couldn't sleep due to too much light entering the room. And now it's stamped with a patent.

Similarly, Mattress Warehouse announced that it has invested in a patented diagnostic sleep system called bedMATCH. Imagine using sensors and diagnostic technology to analyse a human body and getting recommended mattresses for individual sleep needs.

Then back home, there is 'The Sleep Company' that has attacked a niche with its patented SmartGRID mattress tech. This tech was developed in association with India's Defence Research & Development Organisation (DRDO) and a retired DRDO scientist. It has been claimed by the company that it is the only mattress maker in Asia to offer a grid-based mattress.

Look at Purple Innovation Inc. The company has a distinct proposition to tell its customers because it says it designs and produces its own manufacturing equipment – like the proprietary Mattress Max™ machinery. Then there is Logicdata, company that had been designing and supplying the control boxes and other electronic components of adjustable bases for many global leading mattress makers. It made a decision to launch its own line of customizable adjustable beds. It has always been involved in collaborations at many universities. It has a Product Innovation Project with the Technical University of Graz in Styria, Austria; and it also supports the annual Innovation

IP Right applications	2019	2020	Growth (%), 2019-20
Patents	3,226,100	3,276,700	1.6
Trademarks *	15,130,000	17,198,300	13.7
Industrial designs *	1,361,000	1,387,800	2.0
Plant variety	21,430	22,520	5.1

Note: * Indicates trademark classes and designs contained in applications allow for cross-border comparison, as some countries require individual filings for each class or design, while others allow for multiple classes/designs in a single filing.

Courtesy: WIPO World Intellectual Property Indicators – 2021

A patent is the symbol of the expertise and the exclusivity. Getting a patent is like opening a door to opportunity with the power of exclusive competence. Any company can have patent on their technology/product when it achieves something exclusive, meaningful and new to the market

Marathon at the European Forum Alpbach. Long story short - Logicdata creates all its own components and that creates a strong point of differentiation.

The list of examples can go on and on.

Patent escalates the image of a manufacturer

And investing in this edge matters. As Sabina Bhanpurawala, CEO - Foam Home India Pvt Ltd told Comfort Times some time back, her company holds Global Patents on its Ergoshell mattress – a technology which, as claimed by the company, has transformed the entire method of making a mattress. "Over the

years, we have constantly collaborated with several European brands and launched exclusive products in the Indian market."

She shares a hands-on snapshot of the positive ripples that a patent can create. "It is not every day that one can create a product worth Patenting. But it is a great achievement to develop such a product. A patent definitely escalates the image of a manufacturer for it represents expertise and competence to have successfully created something meaningful and exclusive. Only a very experienced and technologically-advanced company could hold patents so it definitely weighs a lot on the image of the company. Of course, earning a patent is just the beginning, it is what one does with it that matters. Patents open several avenues for companies and have the potential for a real turnaround too."

Why does one need to file patents? What benefits they bring? Aadarsh Sharma, who is a Team Lead - IPLicensing at GreyB reminds that innovation is the lifeblood of a company's growth, and innovation is represented by patents. "If one wants to keep growing and wants to have a strong hold in the market, its utmost important to keep the innovation thriving. Over the last couple of years, almost every industry has undergone technological disruptions, be it automotive industry or the healthcare sector."

Similarly, the Mattress market,

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Trends in last five years with respect to filing of IP applications

Application	2014-15	2015-16	2016-17	2017-18	2018-19
Patent	42,763	46,904	45,444	47,854	50,659
Design	9,327	11,108	10,213	11,837	12,585
Trade mark	2,10,501	2,83,060	2,78,170	2,72,974	3,23,798
Geographical					
Indication	47	14	32	38	32

Source: IP India Annual Report 2019

as he reckons, is just like any other industry, and has witnessed an intense transformation. "Mattress industry has induced many innovations be it Anti-mite mattresses, zero pressure mattresses, or a smart mattress integrated with 5D intelligent system. "The patent publishing trend also shows that innovation in mattress industry has grown exponentially. In 5 years, the patent count has grown tri-fold."

He sums up some key advantages as follows:

- Offensive:
 - » Generate revenue by licensing
 - » Increase the Market hold
 - » Used for negotiations in litigation
- Defensive:
 - » Stops others from copying
 - » Set Monopoly in the market.
 - » Can used for counter-attack
 - » Collaboration opportunities
- Strategic:
 - » Assists in IPO/
 - » Acquiring Funds/Investments
 - » Shows the strength/quality of company
- Leadership:
 - » Allows to set market hold
 - » Propagate innovation culture
 - » Allows to be seen as market leader

Truly significant. When you invest in innovative ideas and IP work, you are actually doing more than 'that' idea:

1. You are moving the needle for the entire industry with something fresh and value-adding
2. Your customers perceive your brand with a different and positive lens

With patents, any company can reap returns in the form of better margins and a stronger portfolio, and creating a strong barriers for competition. It also helps in expanding and deepen the stronghold in those niche areas leading to increase in business expansion and profits

3. You can reap returns in the form of better margins and a stronger portfolio
4. You create strong barriers for competition
5. You expand and deepen your stronghold in certain niche areas
6. You gain cost efficiencies and economies of scale if these innovations happen on the back-stream side
7. Your company's value -as an attractive bet for collaborations and investments- considerably goes up
8. You can find yourself on the global map – for the right reasons

The question, now, is – how much of this advantage is being leveraged – by

companies in such industry segments, and specially in India?

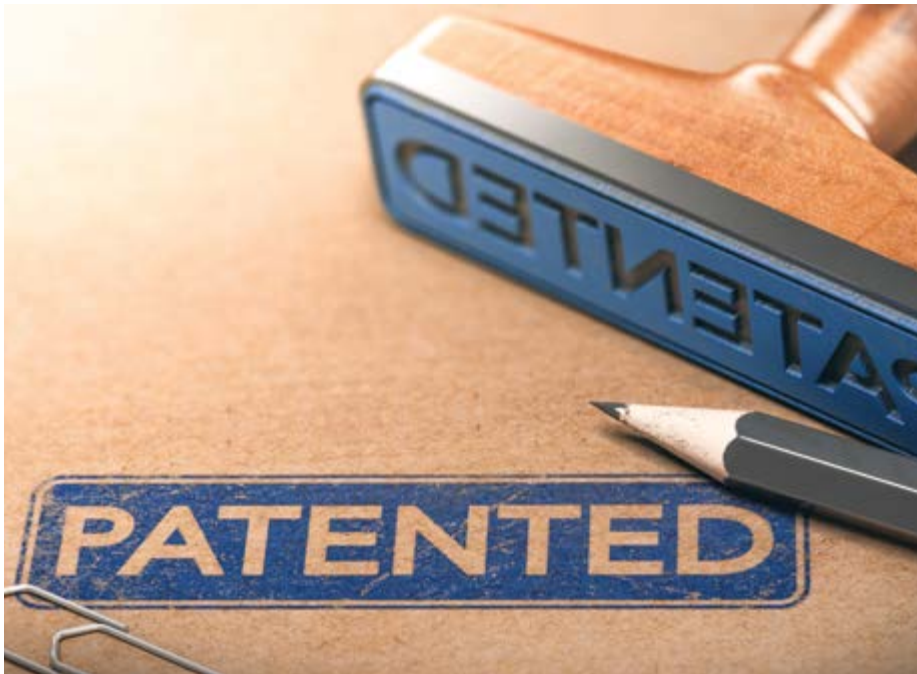
Well-Stacked or Not?

A look at the WIPO's World Intellectual Property Indicators Report (WIPI) shows that patent and industrial designs filing activity has rebounded in 2020. This means that the pulse of human innovation went on well despite a global health crisis.

We can notice that Trademark filing activity rose by 13.7 percent, patents by 1.6 percent and designs by 2 percent. Looks like enterprises across the globe ushered in new products and services to the market. This was evident in the double-digit growth in trademarks filing activity in 2020.

Now let's look at how different countries fared. China was at the top with 1.5 million patent applications, then came the United States, then Japan, then the Republic of Korea and the European Patent Office – and together, these five offices accounted for 85.1 percent of the world total. Interestingly, India (+5.9 percent) and the Republic of Korea (+3.6 percent) recorded growth in applications in 2020 while Germany (–7.9 percent) and Japan (–6.3 percent) witnessed a dip. Asia saw two-thirds (66.6 percent) of all applications filed worldwide in 2020.

This progress was not just on paper. If we count the number of Patents in force worldwide, this grew by 5.9 percent to reach around 15.9 million in 2020. The highest number of patents



of industrial design registrations in force worldwide grew by 11 percent in 2020 and touched around 4.8 million. And designs related to furniture and household goods (18.4 percent) accounted for the largest proportion of global filing activity in 2020. Next came textiles and accessories (14.1 percent); tools and machines (11.6 percent); electricity and lighting (9.8 percent) and construction (8.5 percent).

That means a big ray of hope and reason for the players in mattress industry. A lot can happen if they invest in the right ideas, at the right time – both as manufacturing advantage and as customer-facing innovations.

When we comb through some Indian numbers with a fine tooth, we know that there is a lot that remains to be leveraged. According to the 2018-2019 Annual Report by Intellectual Property India (The Office of the Controller General of Patents, Designs, Trademarks, and Geographical Indications, India), the domestic filing increased to 33.6 percent from 32.5 percent in 2017-18. Also, Grant and Disposal of patent applications went up by 6.69 percent.

If we look at where all this leg-work is happening we can see that 1123 applications were filed under Class 02 (Articles of clothing & haberdashery) followed by 924 under Class 09 (Packages & Containers), 874 under Class 12 (Means of Transport or Hoisting), 743 under Class 05 (Textile piece goods, artificial & natural sheet material), 650 under Class 07 (Household goods not elsewhere specified), etc.

Things are looking up. Observe the total number of patents granted during the year – that is 15,283 out of which 2,511 were granted to Indian applicants. The number of patents in force was 64,686 as on 31st March, 2019. Of these, 9,787 patents belonged to Indians.

The Missing Tooth

Ask Aadarsh Sharma, who is a Team Lead - IP Licensing at GreyB about the Indian contours and he explains that the

Description of share in goods and services	No of applications filed in the class	percent the class
Paints and Varnishes	1927	0.57
Machines and Mechanic Tools, Motors, etc	6901	2.05
Building materials, etc.	5712	1.69
Furniture, Mirrors, etc.	4483	1.33
Carpets, rugs, mats, etc.	761	0.23

Source: IP India Annual Report 2019

in force was recorded in the U.S. (3.3 million), and China (3.1 million), Japan (2 million) the Republic of Korea (1.1 million) and Germany (0.8 million).

Alongside, trademark filing activity also went up substantially in 16 of the top 20 offices. Here, Offices located in Asia accounted for 71.8 percent of all trademark filing activity in 2020. This was impressive- because it was up from 41.3 percent in 2010.

India enjoyed a 15.4 percent growth in trademark activity.

And what were all these innovations for?

In 2019, computer technology was the most frequently featured technology

in published patent applications worldwide. But there were others too – like electrical machinery (210,429), measurement (182,612), digital communication (155,011) and medical technology (154,706).

Strikingly, about 1.1 million industrial design applications containing 1.4 million designs were filed worldwide in 2020. But China's IP office received applications containing 770,362 designs in 2020, corresponding to 55.5 percent of the world total.

As to offices located in Asia - they accounted for 70.9 percent of all designs in applications filed worldwide in 2020 – this was up from 60.8 percent in 2010. Encouragingly, the total number

The Indian mattress market, valued at \$1.7 Billion in 2018, can touch \$2.5 Billion in 2022.

Source: A recent Inc42 Plus report

The worldwide mattress market can grow from \$34.73B in 2021 to \$43B in 2024 (reflecting a 7.38 percent CAGR).

Source: Statista

first point to note about the IP landscape is that the industry is growing.

The Indian mattress market is expected to grow at a robust pace and with that there is a gradual shift in the consumer perspective. Aadarsh Sharma, a Team Lead - IP Licensing at GreyB interprets some new directions. "The demand for a good quality mattress is growing in India as people are becoming aware of its benefits. Thus, also growing is the Indian mattress industry. Recently, an Indian company Duroflex raised ~\$60 million from Norwest. Though, the industry is growing, yet there are few obstacles in the growth path."

He also puts the lens on the unorganized sector of India. "The unorganized sectors plays a major role in manufacturing and distribution in this sector. Generally, People in informal sector are not aware of IP rights. It is not like unorganized sector does not want innovation, and at times, they do innovate, but their innovation remains within their area or community, and they never get the opportunity to monetize or to patent their invention due to lack of knowledge."

As to existing efforts he cites the draft 2020 Science, Technology and Innovation Policy of India and how it does acknowledge the innovation potential of common, resource-poor people. "The aim is of bringing these innovations in the mainstream by providing them finance for commercialisation and support for filing the patents.

But, yet, there is a long way to go. And on top of it we have the Chinese counterfeits which are heavily pushed



To do all this and more, companies will have to pull up their socks on many fronts:

1. Consistent and serious investments in innovation labs and R&D talent
2. Collaborations with apt partners, universities and ecosystems
3. A strong and savvy expertise for IP documentation, filing and follow-up
4. Ability to convert IP into practical value and marketing weight in a practical sense
5. Working on patents for value, customer-edge and progress and staying away from litigation revenue/money-burn and attacks

into the Indian market at cheaper prices. There was even a case where fake branded shoes from China were seized from a container in Chennai. The concern is not new but many countries have already raised the concern including US and UK. This harms the brands and also discourages innovation. You wouldn't like something you have built out of your hard work, invested your time and money, to be sold in a tormented manner (low quality fake copies) in the market. Why would you put more efforts the next time if it will be copied anyway?"


Patents and Mattress industry

That's also why the mattress industry

needs to catch up fast and well. Because out of the total granted patents, 4,187 patents were granted to applications relating to Chemical, 2,857 to Mechanical, 1,253 to Electrical, 1,074 to Computer Science and Electronics, 1414 to Communication, 761 to Pharmaceuticals, 703 in the field of Physics and 429 to Biotechnology in the 2018-2019 Annual Report by Intellectual Property India.

Aadarsh Sharma, a Team Lead - IP Licensing at GreyB recommends that the industry needs to be more stringent on the imports and it needs to be more regulated.

"Even the Chinese laws are also not very anti-counterfeit and are being reported poor. The solution to all this is to continue spreading more awareness on IPRs among companies, business professionals, customers and also in the unorganized sector."

It is not going to be easy. But it's always worth it. Word goes that Graham Bell had somewhere around 18 patents for a lot more ideas that he worked on. Staying a step ahead in the future and saying 'hello' to bold thinking – that's what such great legends have taught disruptors again and again. Having something 'new' for your customer is always a great thing. It's better when it is stitched and wrapped well with proper IP work. That's the difference between an also-ran and a name etched well in history. Rings a bell? 

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Consumer behaviour after the pandemic – Another black swan?

It has never been easy to know what's inside a consumer's mind. And while s/he may look like a duck sitting in still waters now, there can be a lot of paddling happening underneath. Let's find out

Whenever the pendulum reaches an extreme point, chances are it swings with equal force right into the opposite extreme. The pandemic phase brought a seismic shock to many economies and markets. There was radio silence, at least, in the first few months – thanks to all the confusion, chaos and disorientation that the crisis shook everyone with. Diapers, instant noodles and medicines were suddenly on the top of an average person's shopping list and frenzy. It would have been preposterous to expect anything else. During times of panic and confusion, the lizard brain tends to kick off and people make shopping decisions that would have been outright-silly just a few hours before. Also, unexpected categories start elbowing out normal purchase-favourites. Some customers go in a state of inertia, some display hoarding tendencies, some start to compensate lack of spending in one area by spending more in another area – and some stay unperturbed.

We saw all shades of consumer behavior during this crisis. It was a never-before treasure-chest for marketers. They could finally see multiple dimensions of a customer they had safely tucked in a one-label box for many years. Now that the storm is past us, would any of/all of these off-tangent behaviours continue? Or would the way a customer thinks, and shops, change forever in the post-pandemic world?

The Pandemic Customer – New but Same

As per McKinsey experts, the pandemic upended lives and livelihoods across the globe, forcing consumers and businesses to adopt new digital behaviors. Homebound consumers abandoned ingrained shopping habits, hurtling ecommerce into hyperdrive and compressing a decade's worth of digital adoption into 100 days.

In the Deloitte State of the Consumer Tracker (a global survey of consumers), we saw that concern about personal well-being and that of friends and family members was the highest in April 2020 and in the last quarter of the year when



The buying patterns have been changed by the COVID-19 pandemic in all markets. The consumers went from spending mode to saving mode due to the pandemic. There is a ray of hope in the form of business improvement due to a substantial reduction in the number of COVID-19 active cases

new virus cases increased sharply. The personal savings rate ended 2020 at 14.2 percent, nearly double of what it was in December 2019.

With all these factors weighing on consumers, PCE (Personal Consumption Expenditure) shrank by 3.9 percent last year compared to a 2.4 percent expansion in 2019. The pace of decline was the harshest in April 2020. And

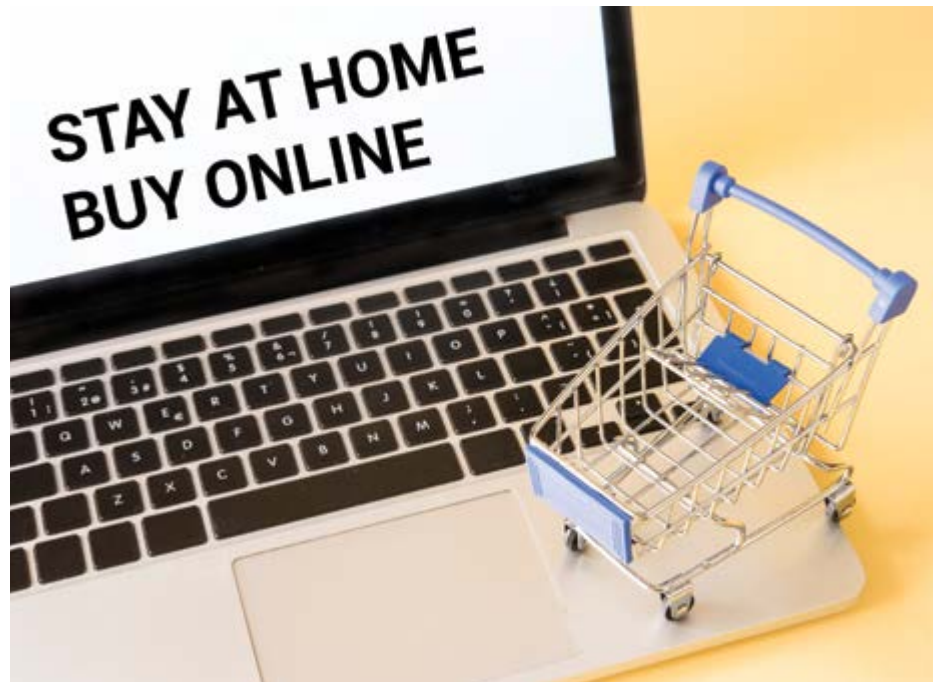
it was only in March this year that spending surpassed the pre-pandemic level of February 2020. Interestingly, goods purchases benefitted during the pandemic, while services fell sharply. No wonder then, that, in 2020, the share of services in nominal PCE fell, while that of both durable and nondurable goods went up by nearly a percentage point each. The biggest surge in spending was on recreational goods and vehicles (18 percent) as people opted to set up their home gyms rather than step out for workouts. There was also the need to set up or augment home offices which led to an increase in spending on furnishings and other durable household equipment in 2020.



Pavel Naiya, Senior Analyst, Counterpoint Technology Market Research reflects on what went by and what consumer trends were prominent.

"In terms of overall consumer behavior the path-to-purchase has evolved a lot during the pandemic. With wallets, UPI apps and e-commerce a new environment has opened up for both buyers and sellers. There is a clear jump in preference of purchase with low-touch points. Consumers have gravitated heavily towards convenience, online models and limited-touch buying. When

The focus of consumer has increased towards home. People are getting more health conscious. The smart furniture space is getting more attention due to smaller space in homes of the Indian market. People are looking for multi-utitarian products that can help them



we look at the big chunk (50 percent) of online medium for mobile shopping in India last year, we are reminded of the preference for new models now. I think this trend will continue in post-pandemic years too. This crisis has truly catalysed digitalisation in the country.”

Remarkably enough, the consumer behavior was encouraging and not dampened much due to the uncertainty, job losses etc. “Initially, we thought that people will get a little conservative with spending but that did not happen. Categories like smartphones are a great example to show how certain items or services have completely flipped in the customer’s mind – they have changed from a ‘luxury’ to an ‘essential’.” Adds Pavel Naiya, Senior Analyst, Counterpoint Technology Market Research.

This shift applies aptly for mattresses, home improvement products and furniture. A lot of Indian and International players have attested to this unexpected trend. The money not spent in travel and lifestyle areas was strongly channelized towards such products because people were spending more time at home. They could see what their habitat needed improvement on – now that they could give it the time, money and attention it had, so far, missed.

PCE (Personal Consumption Expenditure) is likely to increase by 7.6 percent in 2021 and by 3.9 percent in 2022, a sharp change from the 3.9 percent contraction last year.

Source: Deloitte United States Economic Forecast

And high-involvement categories exuded a good traction. “Luxury products follow a different path altogether. People in urban households were not much affected in terms of spending and what they would have spent on travel, apparel etc. could have easily gone into home-improvement and appliances.” Pavel Naiya, Senior Analyst, Counterpoint Technology Market Research notes.



Dr. Veena Tripathi, Leadership Coach-Work-Life Harmony, Author, Consultant and Associate Professor, Jaipuria Institute of Management, Ghaziabad argues that this pandemic is like a wrecking ball forcing people to share their personalized space as work corner. “The cubicles had shifted to living room, bed room, coffee table, kitchen and many more in smaller houses. Smaller living space and ‘Work from Home’ culture has confined employees

inside the four walls of their home. There is a strong pattern of shift in the working behaviour of employees, which opened a platform for innovations such as multi-functional furniture in home space segments.”

Urban India growth

Growing rate of Urbanization, durable furniture, traditional art and style furniture, modular furniture, work and home usage furniture, aesthetic corner for work are the trends of modularity in furniture segment – she picks out some directions that are worth reckoning.

“This year has changed the society towards healthy lifestyle. Consumers are becoming more health cautious in buying mattresses, furniture and home interiors. The evolving demand is more inclined towards optimal use of space through classic, modern and contemporary style. The top trending furniture in year 2021 are unpainted wood, plants, ceramic pieces and tribal paintings.” She hints at what’s shaping fast and strong now.

In the PwC’s June 2021 Global Consumer Insights Pulse Survey we can see that during the pandemic, consumers had to pivot and adopt new habits. Business leaders wondered at the outset of the pandemic whether these changes, which accelerated trends




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already in motion, would be fleeting or permanent. Now, PwC's June 2021 Global Consumer Insights Pulse Survey reveals that the changes are sticking signifying a historic and dramatic shift in consumer behaviour.

In just a six-month period, from October 2020 to March 2021, consumers evolved to be even more digital and eco-friendly. Looks like they have also tuned more price-conscious, healthy, data-conscious and local.

What Next Now

A McKinsey estimate tells that Americans are beginning to spend again, with some 51 percent of consumers reporting a desire to splurge and indulge themselves in a fit of post-pandemic revenge spending. Higher-income millennials look all set to outspend all other groups on apparel, footwear, travel, and experiences such as dining, concerts, and spectator sports. This comes on top of a summer of 2020 acceleration in discretionary spending, particularly on home furnishings.

Pavel Naiya, Senior Analyst, Counterpoint Technology Market Research also underlines the resilience of Indian market. "When things went upside down and there was a prolonged lockdown, the spending pattern was expected to change. But the quick

From October 2020 to March 2021, consumers evolved to be even more digital and eco-friendly. They also reported being more price-conscious, healthy, data-conscious and local.

- More than 50 percent of the global consumers we surveyed say they've become more digital since the first Pulse survey was conducted.
- Shopping via smartphone keeps climbing steeply, gaining 2 percentage points on in-store shopping just since our March 2021 Pulse survey and more than doubling since 2018.
- Compared to when our first survey was conducted, more people say they're buying online at least daily.

Source: PwC Global Pulse Survey

recovery that the economy showed was contributed to in a big way by the Youth segment. These people were joyful to come out of the crisis and wanted to make the most of the positivity. It rubbed off well on many categories.

But things may change too. If we look at the example of the US market from Deloitte's lens, it is likely that by the end of this year, the country will

inch closer to what it was before the pandemic. With it, consumer spending and the wider economy will likely get stronger. Services is set for a strong rebound as people travel more, attend sporting events, go out shopping like they did in 2019, and return in troves to restaurants and pubs. Spending on durable goods is, however, expected to be moderate. After all, there's a limit to the amount of gym equipment and furnishings one can buy. Yet the future of consumer spending will also depend on the nature of post-pandemic life. Remote and hybrid work—a mix of in-person and remote, for example—may induce permanent changes in the way Americans work, live, and spend.

Players should pay attention to where the pent-up demand goes now – to the same categories or the ones that were sacrificed during the lockdowns or entirely new ones.

Consumer spending

Deloitte's estimates hint that demand for Durable goods, the mainstay of consumer spending in 2020, is likely to fall from favor over the next year as people shift spending to services. Also, unlike spending on a family vacation or going to a baseball game, there's a limit to the amount of durable goods a consumer can buy.

Replacing one car with another every year or adding furniture at home frequently holds little sense. Similarly, spending on gym equipment will also dilute a little. And as the threat of lockdowns declines and people also spend more on eating out, stockpiling groceries and essential household goods won't be the worry anymore.

So it is quite likely that growth in spending on both durable and nondurable goods will ease this year and the next. The report data indicates that given the stockpile of durable goods accumulated through most of last year and part of 2021, spending on durable goods is forecasted to contract in 2022. Deloitte's researchers expect spending on durable goods to bounce back during 2023–2025 after a likely correction in 2022.

It becomes very important for any business to pay attention towards the consumer's behaviour for better profits, seeking high involvement from all channels of business



Then there is the big cascading effect of 'how we work next' to watch for. The future of work may well turn out to be a mix of in-person, remote, and hybrid work. Such a change will likely nudge consumers to head more to single-family homes in the suburbs than multi-family units within the city. A shift to larger homes with adequate space for home offices will translate to higher spending on home office furnishings and home utility services compared to pre-pandemic levels.

In PwC's March 2021 Global Consumer Insights Pulse Survey we can also see that four essential fault lines developing that are creating distinct groups of global consumers. Companies can be more prepared for the future by understanding these emerging cohorts and what their behaviours portend.

These four fault lines divide:

- Consumers who now primarily work from home from those who generally work away from home
- Younger consumers from older ones
- Consumers who prioritise health and safety from those who aren't as safety-conscious
- Consumers in the Asia-Pacific region from those in other regions
- **The 'Zoom effect':** At-home workers embrace a more digital, environmentally friendly lifestyle than those working primarily away from home COVID-19 has created a new faction of at-home workers, many of whom will continue to work remotely even after the pandemic ends.

This sea change will not only shape the future of work, but will also have implications for the future of consumer markets, because the behaviours of at-home versus away-from-home workers differ substantially – the report explains.

The report warns well that if working from home becomes the new normal for this cohort, the implications for retailers are enormous. Because at-home workers are likely to stick with habits that have formed during the pandemic, even when restrictions are fully lifted. This segment could drive an even faster decline in physical shopping than we're already seeing.

Other trends

Another trend is that of The 'conscientious consumer'. Recall how COVID-19 has created a cohort of shoppers who've changed their behaviour due to heightened health and safety concerns, as PwC outlines. Also consumers in the Asia-Pacific region are sustainability-minded and less likely to be concerned about health and safety in their physical store experience. The Asia-Pacific consumers are also more likely than their Western counterparts to shop often—weekly or more frequently—via all channels.

Going forward, high-involvement categories like home-improvement and mattresses can find a lot of relief and pace from the path that is evolving now. Some 28 percent of consumers – in McKinsey's reckoning, invested in amenities such as home theaters, gyms, or studios to make the lockdowns bearable, and 30

percent more plan to continue spending on their homes post-pandemic. But even the happiest homebodies are once again eager to spend time and money outside the home on dining, entertainment, and travel.

What is also worth being alert about is the switch that might have happened during the pandemic.

KEY TAKE-AWAYS

A staggering number of consumers (75 percent) tried new shopping behaviors, with many of them citing convenience and value. McKinsey also reminds that as many as 39 percent of them, mainly Gen Z and millennials, deserted trusted brands for new ones.

It's important to pay attention to drifters, shifters and stayers alike. Whether the pendulum of economic activity swings to another extreme or it finds a balance in the middle- it is the perfect time to woo the post-pandemic customer with innovative offerings, attractive products and support to transition to a healthier lifestyle. If not you, someone else is already doing it. The post-pandemic customer may be a white swan, but s/he is, surely, not a sitting duck.

Is D2C a disruptive model for mattress industry?

Stepping out of home is no longer a compulsion for shopping. Thanks to a new generation of disruptive brands, the retail industry is just a click away. A flock of new direct-to-consumer (D2C) companies are transforming how people shop. These brands, ranging from fashion wear to electronics, are radically altering consumer preference and expectation.

Many of these companies are riding on their customer-centric DNA to double growth. The orthodox mattress industry was oblivious to this novel approach. It continued operating through the long and arduous supply chain, unorganized distribution and logistics, indigenous retail, and severely inflated price until a new generation of mattress brands stirred them up from sleep.

The new labels are identifying these gaps and eliminating them via D2C model. They are driven to make mattress shopping fun and simple. These brands are often defined by their proximity to consumers. They opened a new window for direct consumer feedback and access to previously unexplored data – all thanks to being online!

Why is D2C disruptive in mattress industry?

Thinking why D2C is disruptive? Because it allowed the mattress industry to shorten gap between innovation and



product release.

Some of the world's leading manufacturers of mattress often pondered this question: Which technology or component would prove disruptive? However, only a handful imagined that innovations in mattress

design, compression, packaging, and shipping could forever alter the future of mattress sales.

A brand called BedInABox was one of the early pioneers of selling compressed mattress online. Later many other joined the bandwagon and took the concept to



new heights. And then came Casper, a brand-building juggernaut that took the mattress sector by storm.

Casper, a bed-in-a-box startup, was established in 2014 with 5 co-founders and 1 fundamental observation about the mattress industry – that customer satisfaction is upsetting. Prices were high, salesperson were pushy, and availability of choice added to the confusion.

Casper's D2C model was a simple one. The company identified exactly what consumers required. They designed an exceptional mattress, set up their manufacturing, bypassing traditional middlemen, and reached shoppers via online channels.

The rest as they say is history. Casper became a US\$ 100 million worth company in less than two years, upending a multibillion-dollar industry, one mattress at a time.

Online upstarts acknowledged the shift in consumer preference. Their founders realized why the idea of shopping mattress peeved consumers. By creating a convenient channel to shop from and limiting selections, brands such as Casper improved sleep at better price and drew adorning consumers to their website.

Manufacturers of mattress often wondered which technology or component would prove disruptive? Few imagined that innovations in mattress design, compression, packaging, could alter the future of sales

What is D2C retail?

Direct-to-consumer model has disrupted the traditional retail sector in the last few years. It eliminated challenges inherent in offline shopping, reaching consumers directly at their doorsteps.

Unlike indigenous shopping, middlemen are no longer a part of D2C model. This allowed companies to offer their products at lower price and maintain an end-to-end control over manufacturing, distribution, and marketing of their products.

Manufacturers can benefit from the

scope of reimagining their distribution strategy using direct-to-consumer channels. They can either ship their products directly to consumers, or partner with ecommerce giants such as Amazon and Flipkart, collaborate with leading retailers such as Walmart or Target, or open a pop-up store.

D2C does not require brands to depend on traditional retail for exposure. Consequently, it positioned startups to compete with some of the biggest retail brands in mattress, apparel, footwear, electronics, and other industries.

This model offers a plethora of advantages over traditional retailing. For starters, websites do better in etching a brand in consumers mind than television ads lost in crowd of competition. Because D2C offers regular access to both positive and negative consumer feedback, frequent product revision is no longer a hassle for mattress brands.

To capitalize on full potential of online sales, even smaller brands can run campaigns via social media platforms to gradually sway consumers away from their giant unorganized counterpart. Consumers could also benefit from better transparency and accountability of faulty products.

For instance, SleepyCat eliminated the risk of buying online by offering 30-night free trial to consumers. Besides this, mattress in a box remains a simple solution to ensure speedy delivery in comparison to the otherwise cluttered traditional industry.

Will digital natives outplay brick and mortar stores?

Steered by the success of Casper, the D2C model has taken-off in the mattress industry. More companies are joining the bandwagon to capitalize on the new kind of market. Offers such as 30-days free trial, discounts, and easy-return and pick-up have shot up as brands compete to carve a niche.

D2C model is considered disruptive in more than one aspect. It didn't only underscore the need for fair pricing but demonstrated the power of peer-review.

Besides facilitating door-step delivery of state-of-the art mattresses, D2C encouraged companies to offer money-back guarantee.

In response to the soaring D2C ventures, consumers are no longer beholden to big mattress brands. This is a wake-up call for traditional producers in the sleep industry, to re-examine their pricing model and reassess wholesaler-retailer relationships.

Meanwhile, entry barriers for startups are lifted. The factory-to-consumer model of D2C made brands less dependent on traditional means of advertising. The focus shifted to finding the perfect product-market fit. Ranking high on Google and Facebook reviews matters more than hiring celebrities for brand endorsements.

A key indicator underlining the potential of homegrown D2C mattress brands is the steady increase in funding reported by startups. As per Inc42Plus, D2C funding in India grew three-fold between 2014 and 2020, which is indicative of growing investor confidence.

Meanwhile, Bengaluru-based D2C mattress brand Sleepyhead's parent company Duroflex has raised a new round of investment worth \$60 mn from Norwest, a leading Silicon Valley based investment firm.

Riding on this high tide, Wakefit, a fast-growing home and sleep solutions startup, also announced that it has raised Rs. 200 crore or roughly \$28 Mn in a fresh round of series C funding, led by SIG, a US-based global trading firm. Some of the existing investors, including Verinvest and Sequoia Capital India also participated in the current round.

This trend, which started with internet-only mattress companies, often dubbed as "digital natives," like Purple, Casper, Saatva, and Nectar, has exploded to include many homegrown D2C ventures.

In a Diffusion survey conducted in 2018 it was found that 40 percent of

A key indicator underlining the potential of homegrown D2C mattress brands is the steady increase in funding reported by startups. As per Inc42Plus, D2C funding in India grew three-fold between 2014 and 2020, which is indicative of growing investor confidence

the Internet users in the U.S. expected D2C brands to command over at least 40 percent of their purchases in the next five years. Growth will continue as ecommerce platforms make deeper inroad worldwide.

How will D2C ventures affect retail mattress sales?

D2C ventures were holding up during the unprecedented COVID-19 crisis even as retail sales of mattress stayed barely afloat. A lot has happened following the pandemic outbreak. Ecommerce grew exponentially and so did D2C ventures within the mattress industry.

Consumers are unlikely to swarm physical stores even as lockdown opens. COVID-19 has altered their sentiments and behavioral pattern. Following COVID-19, consumers' appetite for online shopping has skyrocketed. Besides the lingering fear of the pandemic, consumers will be driven by the desire for supply chain visibility.

Several Indian startups in the mattress industry are riding on this new wave of online shopping. For instance, Wakefit, a new-age manufacturer of mattress in India, reported consisted surge in profit even as COVID-19 posed logistical challenges – a rarity among Indian startups. Duroflex is on course

to top Rs 1,000 crore mark this fiscal as nationwide demand recovers post the first wave of pandemic.


Start-ups and established players alike are betting big on omni-channel approach. Some of the leading mattress producers are contemplating D2C transformation to overcome intrinsic gaps in traditional retail sector.

The mattress industry has never encountered such power in hands of buyers. Millennials are keener to choose product and services they want, demanding full knowledge about authenticity and transparent pricing. Leading mattress brands are therefore merging online experience with physical ones in fear of running out of business.

For decades, the mattress industry was spearheaded by giants who sold mattresses for thousands of dollars despite low manufacturing cost. Thanks to the Internet penetration consumers are rendered more conscientious. They are no longer swayed by celebrity endorsements or attractive advertisements. Their search for "value for money" has brought them to D2C ventures.

Bouncing off the success of brands such as Purple, Nectar, and others, several others in the mattress industry have adopted D2C model. However, expansion of D2C business model doesn't really pull a break on brick-and-mortar businesses. In fact, the mattress industry is likely to witness the best of both worlds.

Some of the online retailers, including D2C stalwart Casper, realized the value of physical presence and are opening stores across large cities where a prospective buyer can go and try a mattress before making a purchase.

Mattress industry is about to witness a synergy of online and physical sales. Omnichannel approach will become more common. Brands will go the last mile to offer convenience and transparency of online shopping complemented by reassuring experience of retail sales. 



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Archit Gupta, MD, King Koil India

Affordable luxury- Not a paradox

Archit Gupta, MD, King Koil India shares his thoughts on the luxury mattress market and its consumers in India. Also what he thinks about the technology in the mattress industry and its evolution, and some other dimensions

It's all about thinking out of the box. **Archit Gupta**, MD, King Koil India reflects on a long road that his company's lineage and positioning has driven; and also on some current shifts to help us interpret what lies ahead for the industry and some special customer segments. In India, unlike other mattress markets, luxury is not a high-hanging fruit. It's well within the customer's reach.

Mr. Gupta also reveals why technology can be the new front-runner for the mattress industry. It is through technology that true personalisation and health strengths can be accomplished. He seems quite excited about this aspect of the industry's evolution and shares peek into what he calls 'the father of technology in sleep industry'. Let's find out why he is optimistic on both these interesting dimensions of the industry – the luxury segment as well as the technology-driven product innovations that are gaining pace now. And why are both these areas on a good growth curve. More in this interview.

Q A rich legacy of 120 years and still going strong and ambitious? What do you feel when you look back and ahead of this exciting journey? Well, we have taken a strong positioning

There is a lot of difference in the meaning of Luxury in India to international market. Mr. Gupta thinks we need to have an appropriate approach for the Indian market

in the premium and luxury segments, and not so much in the mid segment. We have seen more value creation in our focus areas. Our lens has mostly been on the 'Rs.50,000 and above' category. So the legacy that we see is that of 'affordable luxury'. Incidentally, luxury is a subjective term. In an international market, the luxury segment can mean a different price range. The price range that defines the luxury customer is quite different and expensive in foreign markets. It is usually on a very high side of accessibility and financial-reach. But in India, we have concentrated on this bracket with a different approach. Our focus has always been on making sure that the luxury segment is not out of the way for Indian customers. That's what

we have maintained and strengthened in India. We hope to continue on that path – premium, yet affordable. And we have lined up a lot of innovations on that lane.

Q Like? Can you share something that we can look forward to next year?

Sure. We have launched a new technology which is going to be the father of technology for sleep products. Here, each side of the mattress can be customised with a remote control. This is like the future. We are working on many more such disruptive ideas.

Q Incidentally, the customer has become very comfortable with technology during the pandemic. Would the post-pandemic economic scenario be a new landscape for the mattress industry? What opportunities or challenges do you see emerging next?

We saw a surge in demand like every other industry in the recent weeks, which is after the lockdowns eased. It was interesting because being in the premium segment we did not expect demand to rise so well. But that was not the case, we saw a good demand appetite for our products.



Q Any changes that you anticipate in some customer segments in the coming year - specially in areas like health, luxury and ultra-luxury?

It really depends on the purchasing power of the customer. The demand uptick we saw was also helped due to our expansive reach. Premium customers are always there in the market. It's a base that is increasing every day. They are getting better. It is a segment that will rise moderately, in my reckoning.

Q Has the advent of WFH trend and the shift to a hybrid workforce contributed to a strong and durable impact for the mattress industry? Or were they temporary boosters?

It's very tough to say. Customer-buying patterns can be temporary or permanent. The industry has seen a lot of shifts and new patterns of customer behaviour in the pandemic for sure. But will they last- that's difficult to predict. I do not have a very strong view there but I definitely see a positive side even if I am not bullish about the overall impact.

Q Since you have always had a vantage point with premium hotels, how do you think mattresses and accessory

With the introduction of Work From Home culture the travel and hospitality industries are facing challenges. Due to this the industry has seen a shift in consumer behaviour in the pandemic period

products can help as travel and hospitality players embark on a reboot path now?


For the last two years, the travel and hospitality players were facing challenges and most were in a shut-down state. Now as the world is opening up, many pending projects are being revived. We see a continued surge in demand in the next 3-4 months if no new variant or wave interrupts this trajectory.

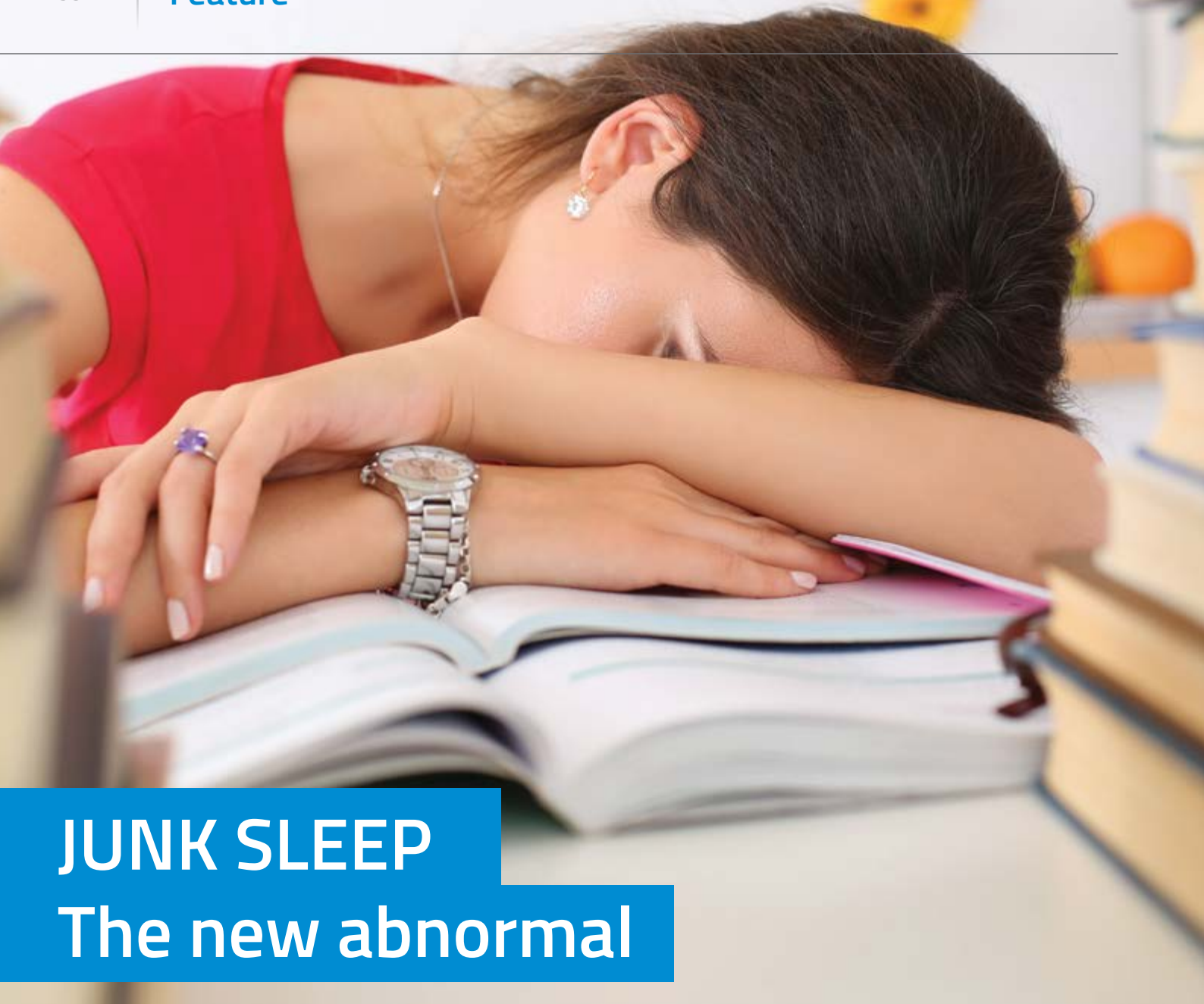
Q You chose body contouring, posture-sense and pressure-relieving features early on in the industry. How significant would the health lever be for the customer and your portfolio now?

We have been collaborating seriously on health-related innovations. One such endeavour is the Sleep ID where a couple can customise the softness of a foam. We wanted to contribute to compatibility in a relationship in the form of a mattress too.

The product works on BMI calculations and takes care of personalised aspects very well. It is a body match technology. This was brought in because we observed that buying a mattress just by its firmness or softness might give a person body aches and sleepless nights. We wanted to help to find a mattress that suits a couple, and wipe away the problem of an incompatible mattress.

It is an exclusive technology that analyses the way a person sleeps. The software takes many consideration points and delivers something that meets unique requirements very well.

All one needs to do is enter basic data and our software will populate the best match that works for a person and his/her partner's body. It gives an accuracy of 94 percent. At King Coil, we are empowering customers with technology that can find the right mattress for a specific body type. 



JUNK SLEEP

The new abnormal

Waking up with a good number of hours on the clock but still feeling tired? Your own energy levels drain long before your phone's battery does? Well, you might have got yourself a case of junk sleep. A physiological effect, junk sleep is when a well-being optimized sleep is not achieved because the individual has been using screen electronics right up to the moment of falling asleep. Screens in general, and smartphones to be precise have become an integral part of our lives and their increasing usage has started affecting not only our waking hours but slipped right into our unconscious state too, our sleep cycle.

How it affects us?

The National Sleep Foundation, a non-profit organization, recommends 7-9 hours of sleep for adults but using a screen delays the onset of one's sleep and further impacts the various stages of the cycle, thus compromising on both, quantity and quality. Subsequently, going about the day while longing for more sleep, feeling fatigued, with poor concentration, and low energy levels to undertake any tasks, especially the ones which are physical in nature becomes a common occurrence.

These hassles are often accompanied by elevated levels of anxiety and crankiness and a gradual

memory decline and attention related issues. A general disregard towards the same is not uncommon either. But in the long run they adversely affect one's productivity on a day-to-day basis and impact the overall quality of life.

Why it happens?

The human body, being one of nature's finest wonders, has a natural, internal clock that regulates the sleep-wake cycle of roughly 24 hours, called circadian rhythm; and it depends heavily on exposure to light and darkness. The electronic back-lit devices, like cell phones, tablets, computers, etc., on which our lifestyle enormously rides now, emit blue light. Various studies



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have shown strong evidence that this blue light reduces natural production of melatonin in the evening, a hormone responsible for inducing feelings of sleepiness and rest.

In a study by the Brigham and Women's Hospital (BWH), they studied the impact of using printed material against eReader, laptop, or TVs before bed, and concluded that screen time before sleep can be detrimental. The study found out that light from screens alters sleepiness and alertness, and suppresses melatonin levels.

It's not just the screens but also the content we consume from them. Social networking sites are made up of a collection of unrelated micro-narratives linked solely by an interface, offering limitless ways to engage with the content. In contrast, a book's narrative unfolds slowly, building-up with ideas layering on top of each other over time. Using a social media site fools the brain into becoming more active, and leads to possible alterations in the circadian rhythm.

The new abnormal

Further, the pandemic has drastically changed our usage patterns of screens in all realms of life. Either it be for the purpose of work, or for the simple pleasure of socializing; to simply find a creative outlet, or to stay updated on a global level, our days have been packed with switching between various electronic screens. Even though we acknowledge this over-indulgence, the know-how of its various consequences still remain under examination at an early stage.

We also need to take into consideration that sleep as a physiological process still maintains its relative mysterious nature and thus probing into its relationship with various environmental factors, especially in today's fast-paced, technology-dependent lifestyle is no facile task. Nonetheless the weightage it carries in terms of overall well-being is unmatched.

Charles Czeisler, the chief of BWH

Understanding how sleep is affected will lead us to have good physical and mental health

Division of Sleep and Circadian says "Since more people are choosing electronic devices for reading, communication and entertainment, particularly children and adolescents who already experience significant sleep loss, epidemiological research evaluating the long-term consequences of these devices on health and safety is urgently needed."

The art & science of sleep

Knowing what a good sleep consists of is a crucial part of understanding how it is affected by our newer lifestyle choices and how to find a healthy balance and optimize it. A good sleep is made of Non-REM and REM cycles. The NREM cycle has 3 stages- Stage 1: falling asleep; Stage 2: preparing for deep sleep, body and brain slow down; and Stage 3: Deep Sleep, no eye movement or muscle activity. Using a screen delays all the stages of the cycle, especially Stage 2 where our brain is supposed to slow down and relax and thus our brain goes into Stage 3 underprepared due to which deep sleep is not achieved efficiently.

NREM cycle is responsible for building bones and muscles, repairing and regenerating tissues, and strengthening the immune system. In the REM sleep cycle the brain activity increases again and muscles relax to almost a temporary state of being paralyzed. REM sleep is essential for consolidating memories, and helps build better coping mechanisms. Since junk sleeping deteriorates our cycle, it also adversely affects all the crucial processes the body is supposed to undertake during the time being.

In terms of information processing, the wake state is for reception: experiencing events and learning from the world around us, NREM sleep is for reflection: storing and strengthening the


raw data encountered throughout the day, and REM sleep is for integration: interconnecting that raw data with all the past experiences, and thus arriving at an even more accurate model of how the world works, including innovative insights and problem-solving abilities. Junk sleeping reduces the NREM sleep cycle which affects the REM sleep that follows, thus having repercussions on both physical and mental functions.

Put that phone down for the sake of Humanity!

A paper titled Sleep intensity and the evolution of human cognition by David R. Samsun and Charles R. Nunn makes very interesting observations. It compares the sleeping patterns of humans to 19 other primates. The study notes that humans sleep way less in terms of hours compared to other animals, but at the same time their REM sleep cycle is the longest.

REM is considered crucial for consolidation of memories and knowledge. It gives structure to our waking life and as a species, we have evolved to optimize our sleep and make it notably efficient on our way to becoming a dominant species. Junk sleep has obviously handed a big blow to this and it no longer poses as a mere lifestyle malfunction on an individual level but a real endemic for our entire race.

Yet, it is no surprise that its cure lies in the smallest of efforts. Experts recommend making a bedtime routine; going to the bed at the same time each night and waking up at the same time each morning, exercising, keeping the sleeping place cool, quiet and dark, stretching a bit before lying down, reducing nighttime exposure to blue light, gadgets and screen and quit endless scrolling before falling asleep.

Dr. Anne-Marie Chang, an associate neuroscientist in BWH's Division of Sleep and Circadian Disorders says "If you don't want to feel like a zombie during the day, the findings are clear: Read an actual, printed book if you must stimulate your mind before bed, and avoid screens like your life depends on it, because it actually might." 



Adopting lean in mattress manufacturing

Though waste reduction is a core concept in lean manufacturing, it takes more than reducing waste for a smooth transition to a perfect lean process.

Over a year into COVID-19, companies continue to cope with the uncertainty of consumer demand. Dramatic fluctuations in supply chain and continued instability of broader economy are keeping industries on their toes as manufacturers contemplate the best ways in which they can settle in the new normal.

While operating under such unpredictability, upcoming and leading brands alike in the mattress industry wonder if lean manufacturing can help them buckle the pandemic-induced scepticism in consumers.

Many would say yes to this. Lean manufacturing has evolved over the years to become an ideal model to navigate through supply-chain disruptions caused by COVID-19, while catering to dynamic consumer preference. The biggest advantage lies in helping companies to reset using lean manufacturing tools and principles.

Is lean manufacturing still relevant?

When lean manufacturing was under the spotlight for the first time, it was considered both revolutionary and futuristic. Several manufacturers were keen on replicating the success of early adopters such as Toyota.

As a concept, lean manufacturing primarily focuses on reducing physical waste and saving cost of production. More importantly, it focused on reducing downtime while preventing stockpiling, which was a key challenge witnessed in diverse sectors during the pandemic.

This brings us to the question – is lean manufacturing still relevant after all these years? The answer is a simple yes! With focus on streamlining operations and maximizing productivity, lean manufacturing is a hand-in-glove fit for the contemporary manufacturing industry.

Following the onset of Industry 4.0, automation and communication between plant and devices are catapulted to the fore. A staggering volume of data is available online, which



Lean Manufacturing has the ability to reduce the manufacturing lead time, trim down manufacturing costs, reduce material handling and get better quality

has massively increased the workflow.

Against this backdrop, you might argue that co-existence between lean manufacturing and industry 4.0 may not be as harmonious. Rolling out automation makes downtime inevitable, which chafes against the core idea of lean manufacturing.

On the flip side, harmony between lean manufacturing and industry 4.0 is on cards since automation increases productivity and streamlines flow of work. The novel technology cuts back on unnecessary paperwork and time-consuming administrative processes.

Meanwhile, implementation of big data can cater to lean's demand metric monitoring – an advantage highly sought-after by start-ups and smaller

players in the mattress industry.

Can lean be a recession surviving strategy?

Until a couple of years ago, one of the world's top mattress manufacturers Sealy's manufacturing techniques were conventional and not recession-proof. Today however it is a cakewalk. Sealy is among the group of manufacturers who continued reporting profit even during the Great Economic Depression in 2007.

The company remained profitable using a practice called lean manufacturing, which fostered unfathomable cost-advantages. The new techniques showed how the company can reduce expenditure on material handling, ensure less movement and dirt, while producing one bed at a time. The lean approach focuses on "pull" production, which entails produce as per the demand, instead of manufacturing ahead of demand, which poses high risk of stockpiling. As lean manufacturing optimizes supply chain, it helps save on inventory costs since they will not need to hold too many unfinished products.

One can say that good demand forecasting is at the heart of a successful lean model. As you adopt lean manufacturing, your first step should be to eliminate the non-value adding steps from your manufacturing process and ruthlessly so. Though waste reduction

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“Lean manufacturing is definitely useful there is no second opinion on this. How much is being utilised - that is still a question-mark. Industry is still running mattress manufacturing in a traditional way. May be one or two companies are trying to adopt Lean. Most companies do manufacturing in a traditional way. The reason being that India is a very complicated market. There is no standardization of mattress in its size, shape or thickness. In so many cases, a carpenter decides on the size of the mattress. Automation and Lean work best if we have standardization on size and shapes etc. The moment you have multiple sizes it becomes challenging in terms of what we can achieve – and then the factors of complexity vs. manpower and deficiency come into play. For sure for limited size environments like e-commerce or exports or people like IKEA who are planning to stabilize - this is a great opportunity for them”.

*Dr. Mahesh N Gopalsamudram,
Chief Operating Officer,
Sheela Foam Ltd*

is a core concept in lean manufacturing, it takes more than reducing waste for a smooth transition to a perfect lean process.

What it takes to make Lean Manufacturing a success?

As per experts, access to write information at the right time can make lean manufacturing a huge success. For example, if one production unit witnesses a glitch, right information received at right time can ascertain timely product recalls, without the manufacturing plant needing to suspend its operations.

“For a successful implementation of lean manufacturing it is an absolute necessity to monitor every aspect of your business, starting from availability and prices of raw materials, product quality, and work-in-progress inventory



to changes in consumer perception,” said Rajeshkumar M S, Senior Area Manager, Repose Mattress Pvt. Ltd.

Secrets to a successful lean manufacturing are below:

Step 1: Clarity

Accessing real-time information is your first phase of deploying lean manufacturing for mattress production. This also includes seamless flow of data across supply chain to improve the maintenance and reliability of the process.

Clarity in data communication across supply chain lays the foundation for a perfect lean manufacturing. It empowers a company to make strides in establishing standards for inventory visibility. Clarity also facilitates other functions such as quality, engineering, warranty, and recall.

Hidden in this step is the solution to handle variable demand patterns. This is the step where you define the commercial and overall value of your mattress to customers. While a customer will always seek comfortable mattress at the cheapest price point, it is the availability of unlimited choices that makes a simple decision a rather complicated one.

For a producer, the pattern of customer behavior can be gauged by studying the historical sales data.

Researchers says that WIP inventory reduction with the implementation of lean manufacturing can keep organizational competitiveness in recessionary times

Clarity on what a customer truly seeks is your first step towards eliminating unnecessary steps causing overhead expenditure.

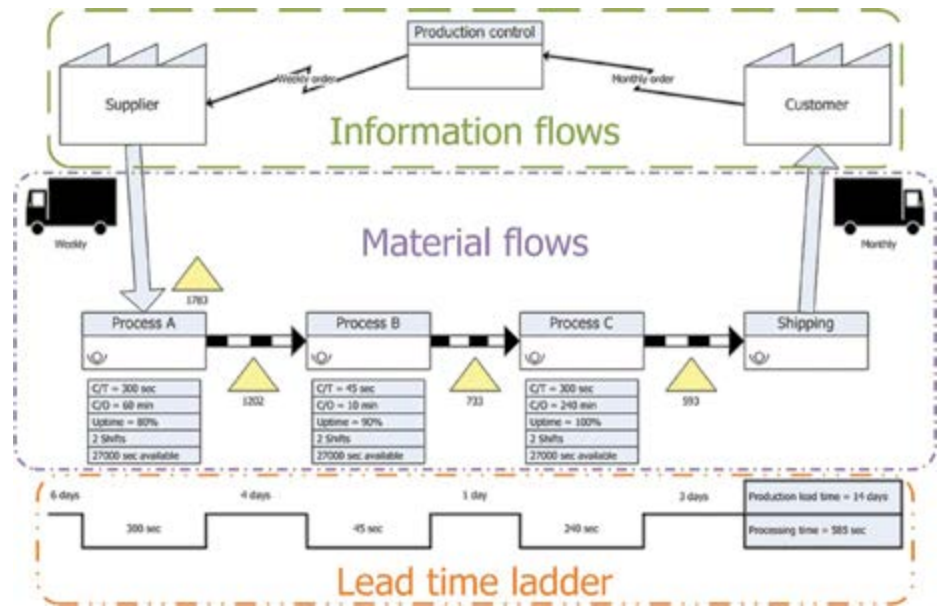
Step 2: Agility

As COVID-19 tightened its noose worldwide, vulnerabilities of top manufacturers were exposed. While some of the larger market players struggled to stay afloat, their rather humble counterparts successfully navigated through challenges, thanks to their nimble manufacturing approaches.

This brings us to the second attribute for a successful lean manufacturing - Agility. Responsiveness to changes in the marketplaces can help a company stay afloat while others struggle hard for the survival of their businesses.

To attain agility in mattress manufacturing, you must identify and eliminate distractions that can slow

The advent of lean manufacturing has helped mattress manufacturers of small and large scale, to manage their economy and seize hidden prospects for growth



down your decision-making. Get rid of physical waste and even unnecessary talent.

This is where technology can facilitate agility. For instance, transition to ecommerce can eliminate middlemen, sending you directly to a consumer's doorstep. It allows you to process information quickly and respond without wasting time.

Step 3: Unity

Your aim for maximizing productivity and eliminating waste will remain incomplete unless you standardize supply chain. This means success is possible only when suppliers and manufacturers work in a synergy.

A perfect lean market is easy to spot once communication across supply chain is harmonized. In simple words clear and unified approaches are necessary for collective competitive advantage. Manufacturers and suppliers alike can use web and other advanced technologies for demand sensing.

Once they have information, passing it along supply-chain will drive a successful lean manufacturing. Both manufacturers and vendors should collaborate to respond to events quickly. This step is tied to the success of step 1.

Fruition of lean manufacturing is possible only when the manufacturer

and supplier are on the same pace. This can happen only when both have access to real-time data. While this may sound simple, it is way more difficult to put in practice.

Companies around the world have tried implementing lean manufacturing. However, not everybody's efforts were paid off. Experts say that you are either wholly committed to lean manufacturing or not at all.

There are no half measures for a successful lean manufacturing approach. However, if you do join the bandwagon, you will be surprised at how much waste you remove and how quickly you end up in the windfall of profits.

Transforming into Lean Manufacturing

It was not easy for upstarts to break into the condense mattress industry. However, when recession hit the global economy in 2007, it exposed the vulnerabilities of the sector. Not all companies could respond quickly to the economic downturn. Even big names were weighed down by their intensive supply chain, which compromised on their flexibility.

The advent of lean manufacturing has helped mattress makers, small and large alike, to manage recession and seize hidden prospects for growth. In response to unpredictability, new

generation of mattress manufacturers are choosing lean manufacturing over indigenous production concepts.

Lean manufacturing works on the culture of continuous development. To make a smooth transition, a mattress business must accomplish the following steps:

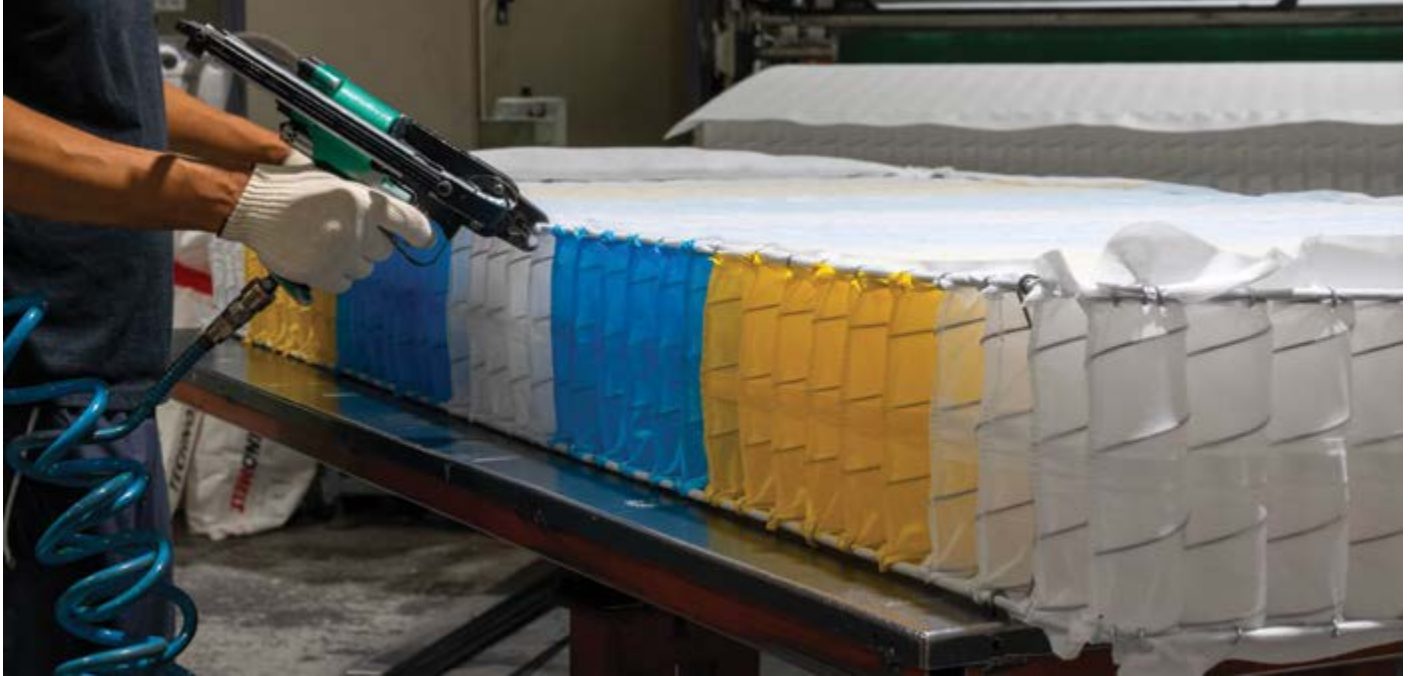
1. Define your product value

To make a successful transition to lean manufacturing, you must first define the value of your product in terms of its commercial potential. This is a tricky one, because as manufacturers your perception of value could differ from that of a consumer.

A consumer would always want to buy quality mattress at the cheapest price. Notwithstanding how simple this sounds, deciphering "quality" and "cheapest price" in terms of customer expectation might be the most difficult task for a producer.

How do you define quality? Is it characterized by the cutting-edge technology you are offering, or the quality of materials used? More so, how would you decide upon what customers perceive as "cheapest price?"

A producer's definition of "competitive pricing" might not align with customer expectation causing friction. The best way to resolve this



is by studying your customers. This again brings us to the importance of “information on consumer preference”. Now how as a producer will you ascertain the best price for your mattress. In order to meet customer expectation, you need to get rid of waste that is holding you back from offering the best price point.

2. Chalk out value stream

Once you have clarity about the value of the product, you have successfully scaled the first step towards going lean. Your next step should be to chalk out a plan to achieve the required value of the product. This stage involves three highly critical management tasks:

- **Problem solving** – This involves laying out your concept through a detailed design, starting from engineering to the launch of production
- **Information management** – You must have a hindrance free line of action supporting order-taking to scheduling and final delivery
- **Physical transformation** – This stage involves running through raw materials to finished product until it reaches the final customer.

3. Ascertain seamless flow

Once you have your value stream defined, you need to ensure that it flows

Brands and startups have realized that automated machinery might pose challenge to traditional manufacturing practice. Hence some are replacing automated systems with human intervention for less loss of time and resources

hindrance-free. This could easily be the toughest stages of all since it involves transforming the mental model into a practical one.

Unlike traditional manufacturing processes, flow thinking is best called counterintuitive. This approach urges you to focus on individual products in place of batch processing. Some of the well-known mattress brands and startups have realized that automated machinery might pose challenge to this practice.

Hence some of them have even replaced automated systems with human intervention to avoid the risk of system failure and ensure that a product seamlessly flows from one stage to another without loss of time or resource.

4. Know your pull

Your efforts to attain productivity, optimize manufacturing, and ensure high quality through value streams will remain incomplete if goods produced pile up either at the distributor’s or retailer’s end only to come back as returns. To ensure this does not happen you must implement the “Pull” strategy. In other words, it is necessary for you to integrate customer preference directly to the factory floor. Do not confuse this stage with the practice of understanding what a customer wants through market research.

Instead in this stage you must log in customer demand to create mattress in real time. Not all companies could appreciate this approach. However, with the Web making deeper inroads worldwide, ascertaining pull in mattress manufacturing units have become easier than ever before.

5. Aim for perfection

The final stage of achieving lean manufacturing it to be able to achieve

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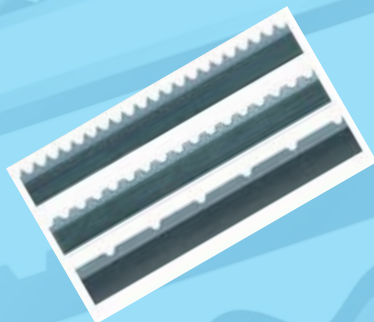
Band Knife Blade

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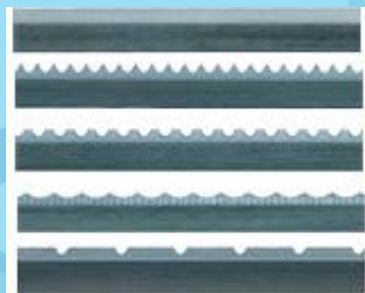


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perfection. By this stage you will have eliminated unnecessary expenditure and cumbersome processes. This will push your company towards lean manufacturing.

However, success at this stage is hugely dependent on transparency across your supply chain. Remember every supplier, sub-contractor, and other partners must maintain transparency in their functions to ensure that the value of the product is as perceived by customer.

Why should you consider ecommerce for lean manufacturing?

Until 2014, a customer had to walk into a physical store and buy mattress in person. At that time no one had anticipated that the mattress-in-a-box-phenomenon would change the traditional buying methods for good.

A company called BedInABox was among the earliest pioneers of selling compressed mattresses via online platforms. Later, the concept was taken a few notches higher by Tuft & Needle.

Come April 2014, Casper was launched, an online start-up at that time with just five people operating behind the scenes and the mattress industry would never be the same again. Casper mattresses were simple but made with

high-quality materials using multi-layer technique.

Better yet, it adopted a direct-to-consumer approach. Meaning, it would ship mattress to a buyer's doorstep in a conveniently sized box. Also, thanks to attractive offers such as 100-day free trials, more consumers were willing to give the new mattress a trial.

Backed by lean manufacturing, D2C mattress industry grew stronger. Indian mattress industry registered a visible shift to online platforms. A number of mattress start-ups in India are advocating the combination of digital presence and lean manufacturing.

Speaking about how ecommerce is ideal for lean manufacturing in mattress businesses, Abhishek Sharma, Founder, Bhagwati Foam Industries said "Lean manufacturing is an ideal solution to help mattress businesses keep track of inventory and optimize operations across supply chain more efficiently. Ecommerce offers greater flexibility to mattress businesses to reach a more widespread customer demographic without incurring extra cost. Overall, it helps smaller companies to keep their best foot forward, while maintaining a low cost of manufacturing."

Consumers today have become

more comfortable making big purchases on the internet such as buying mattress online. Moreover, ecommerce is allowing companies to offer quality mattresses at 30 to 40 percent cheaper price, simply by eliminating middlemen.

It is therefore ideal for upstarts who are looking to carve a niche in the highly competitive mattress sector. Mattress start-ups make a new breed of businessmen who are more into lean manufacturing, leveraging their strengths while by-passing go-betweens. [CT](#)

KEY TAKE-AWAYS

- The mattress industry in India is abuzz with lean manufacturing. Several upstarts have exhibited impressive growth in the last couple of years, reiterating benefits of going lean.
- Lean mattress manufacturing will continue growing in India, however, this model is not for the faint-hearted. One has to spend much time and energy to follow through a successful implementation. Restraining, reskilling, and dealing with excess manpower is inevitable as you set out on your journey to lean manufacturing.
- Lean manufacturing is an ideal solution to help mattress businesses keep track of inventory and optimize operations across supply chain more efficiently.
- Companies around the world have tried implementing lean manufacturing. However, not everybody's efforts were paid off.



G Shankar Ramm, Joint Managing Director,
Peps Industries Pvt Ltd

A good night of sleep-goes far – into a good and productive day

G Shankar Ramm, *Joint Managing Director at Peps Industries Pvt Ltd* unravels the basic nature and some gaps in consumer psychology when it comes to buying a mattress. In this interview, he unlocks the future direction of the mattress industry

Q How should the mattress industry adapt to the post-pandemic era? What has the God created us for? Think and you will instantly know that it is – to live well, to eat well and to sleep great. So from that perspective, the opportunity for this country is mind-boggling. We need to make people understand that their sleep is very important. We need to tell them to treat sleep with utmost seriousness. So that way, sleep is a big big opportunity in this country.

Q How has consumer behaviour changed in this country in the last 18 months?
Today the consumer is more of the Youth segment – that's a big base. They are more into the e-commerce platform. They are, hence, more sensitive to price-competitiveness and they are not looking at delighting themselves. That's the journey of the first purchase and a hint of the future times to come. That's what we think. What is still happening then is that cheaper products are in big demand and the 'sleep quality' part is, still, not well-understood in the market.

Q What kind of innovations can shape in the next 24 months?
The country is looking for good quality mattresses. We are evolving well. There is a big potential for the next 25-30 years. So the sleep industry is getting

stabilised. Each company is looking at how to innovate and improve on a continuous basis. Generally, it is through a different material and giving a different level of comfort to the customer. It is hard to say what new kind of innovations come up next.

Q Peps is a leading spring mattress brand in India. You have a good stronghold in this space so far. So what next?

We have some big opportunities in front of us. But we need to expand ourselves in other parts of the country and that's what we are looking at. We were hesitant so far but now the time has come to expand well. We need to go back in the same drive as we did earlier. A lot of people still associate spring with sofa in a grandfather's house. They still think spring is not good for sleep. That's a feeling in the consumer's mind.

To remove this block we need to accentuate big awareness and marketing campaigns. To educate people and change this perception – that is an evolving strategy. We have a couple of good strategies that we are working upon.

We have grown stronger by word-of-mouth in the last ten years. If a customer has bought a mattress and then some

other family member liked it and asked it – and then s/he also bought it. It is a mind-blowing opportunity. People buy cars to show others. But that's not the case with mattresses. A mattress is something a person uses every day. I still say 'wow' every time I sleep on my mattress.

We make sure we do not confuse a customer when he visits our showroom by telling him/her that we sell a foam mattress or a coir mattress, we are very clear that we sell spring mattress and we are different. We want to grow this segment with a long-term horizon.

Q Value and cost-effectiveness are strong points for a purchase for early buyers. Do you have such brands in your portfolio?

We do have such brands and we want to have a decent gradual growth in this segment. We mainly focus on spring mattresses. We are mainly looking at quality proposition. Like – we have done a lot of research and development work on unique features.

It will take some time but we are working hard on it. We are doing reasonably well. We are not looking at dominating this space. We are looking at growing at a speed that we want to hit on a year-to-year basis. **CT**

The rise of modularity- How do these lego blocks stack up?



With shrinking square-footage in urban metropolis lives, and the ever-expanding breadth of a better lifestyle, consumers want to have everything – without necessarily wasting redundant space and money

If there is one theme that underlines the pattern of disruption in many key industries seen recently – it is the phenomenon called 'Elasticity'. You look at why people do not mind trying an Airbnb instead of a hotel. You observe why gig workforce is making sense for both the sides of employment. You catch why Cloud is upending traditional

software models. Anywhere you look – from SaaS to 3D Printing to DIY fashion and the streak is clear – modularity is driving a new form of consumption and operations today.

So why not in the home space! After all, with shrinking square-footage in urban metropolis lives,

and the ever-expanding breadth of a better lifestyle, consumers want to have everything – without necessarily wasting redundant space and money. Now that the last few months have pushed people to stay at home and fit their work in a small perimeter, consumers feel the need for modularity in a far more strong way.

They want to stretch out their home-spaces to new hybrid work-models when they need them. They also want the spaces to indulge them with relaxation, personal sanctuary and family-time. They need a space that can expand and shrink as per their moods and needs. It can turn from a workspace to a lounge and vice-versa depending on what they feel like doing in the space. That is where the industry wakes up and offers them an accentuated model of modularity – solutions that can be arranged to scale up, scale down, scale out, shrink in – as simply, and as engagingly, as Lego blocks.

It's impossible to miss this ever-rising box of flexibility.

Scrabble for Industry

Whether we look at general construction space, or at pre-assembled and pre-fabricated segments – it is hard to ignore the rise that modularity is taking in various forms and at a new scale.

A look at the Global Modular Construction Market size from ResearchandMarket's lens shows that it stood at \$108.59 Billion in 2020 and has been expected to reach \$116.02 Billion in 2021. As to 2026, it has been slated to hit \$164.61 Billion. According to Dodge Data and Analytics, prefabricated multi-trade assemblies, which involve the work of several trades combined together would be used by 58 percent of those doing prefabrication in general. This is a significant jump from the 33 percent using this approach now.

Growth is also seen among those doing modular construction in the use of full volumetric approach, in which entire parts of buildings (such as bathrooms or hotel and hospital rooms) are delivered pre-constructed onsite and assembled together. Almost 61 percent expect to employ that method at least 10 percent of their projects in the next three years. As many as 90 percent have enjoyed improved productivity, improved quality and increased schedule certainty when using these methods compared to traditional stick-built construction.

Such solutions are also helping with



The era of interior designing has been revolutionary from the past few years and the modular trend has established itself a lot in these years

better schedule performance, decreased construction costs and improved quality. This explains the jump the use of prefabrication and modular construction in the next three years.

According to MordorIntelligence, the Indian furniture market has changed over time. Its market has expanded beyond chairs and tables. It now entails designed interiors, wardrobes and sofas. With a growing middle-class population, rising disposable income, and the growing number of urban homes – there is a significant expansion of the Indian furniture market. Now organized players have also increased their contribution to the Indian furniture sector during the previous decade. What is notable here is the influx of multinational furniture companies, like IKEA, into India and the rising desire for modular and state-of-the-art furniture among the people living in urban areas. There is a surge in need for durable

and hybrid seating furniture – and all this is driving the growth of the Indian furniture industry.

What is interesting to note here is that the expanding wood sector is helping to offset the cost of furniture. The growing online and mobile shopping is expected to boost demand for furniture via online channels. A jump in number of hotels and business offices are spurring the demand for furniture in the country.

Notably, the furniture industry bounced back with the rise in work or study from furniture in later half of 2020. The crisis has resulted need for the privacy and personalized space within the house – which was now required for the work from home or study from home. So the furniture industry would gain from the subsequent demand for hotel furniture.

As per a RedSeer report, the India's furniture & home market will reach \$40 billion by 2026. It is also being observed that Verticals dominate the premium 'Solid market whereas horizontals dominate the budget "plastic/metal and engineered wood" market. Interestingly, the average selling price on verticals is 10x higher for furniture and 2x higher for decor than horizontals. The report's findings add that verticals with superior omni-channel presence, customer

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experience, product innovation, and technology capabilities are well-positioned to scale the findings showed.

And with the advent of the bed-in-box system, the mattress industry has become a ripe ground for customization, new and flexible designs and agile formats. This is being seen in various areas in and around a mattress – like the zipper, suspension units, comfort layers, transition between the sides of the bed etc. The work furniture is also being considered for modular avatars that transform into a recliner or a lounge-bed when one needs to rest. As Deepak Mehta, Director, Tirupati Foam has opined, categories like hybrid furniture and modular beds will surely move at a stronger pace, as we move ahead.

Subodh Mehta, Senior VP, Sales & Marketing, Godrej Interio has also pointed out in conversations with Comfort Times that the pandemic has created a new market for WFH solutions across various categories and furniture is a top one in that new wave. “We already make chairs and desks. Now a plethora of needs are expanding the market – specially chairs and employee desks for the houses and not offices. These offerings need the right channel and display-related avenues. We are also witnessing a surge in interest from corporates who are discussing many models to furnish their employees with good WFH furniture – like easy-to-avail company-specific coupons for e-commerce sites, which save a company the distribution hassle. We are also modifying some of our products to go well with WFH needs – like a couch with movable desk, or a foldable table that can take care of space constraints, or a sofa with an arm-rest. We are discussing, and learning from, our customers in this space.”

Examples like Godrej Interio’s focus on furniture and modular kitchen offerings corroborate the big shift that is taking place towards modularity. Or how PepperFry is accentuating new ideas with its modular centres. Similarly, the appetite and portfolio for customisable mattresses are expanding

Roll the dice

As expansive and penetrating this trend is getting, modularity can find its true roots when it is deeply woven with a long-term product road-map and a definite strategy. It will become a new industry model worth its pound, if players can create solid models and services that accelerate and nurture modularity – way after the product has reached a user’s home. It helps if:

1. Modular options embrace personalization at the core level so that a user can find unique value and true fulfillment from the investment of money and time here
2. Modularity should run across the entire spectrum of products and services that a user opts for. It will serve a full-stack purpose then if it can straddle all the products, accessories, services that a customer’s house is made of – including the one from other players and industries. Ex- a modular chair will actually deliver value to a user when it aligns well with the desk, other furniture in that room and the overall design theme of accessories too
3. While some form of self-assembly or DIY element can create user-involvement and engagement, care should be taken to not make it complicated and time-consuming
4. Modular products should be as good in quality, lifelong value, support and maintenance as other products. They should not be put on the back-burner on the company’s radar
5. The time and cost taken to achieve modularity should be reasonable
6. A long-sighted approach should be taken to make these products ready for imminent future trends like smart homes, sensor-based home appliances, IoT-enabled houses and tech-savvy lifestyles
7. Material-quality, technical structure, user-friendliness etc. are areas that should never be compromised for aesthetic value of modularity



in an unmistakable way. BedGear, M3 and DYOB are bringing out products like customisable modular mattresses. This matters a lot for an industry that has been commoditised so far in the area of design and format. The differentiation levers have chiefly been the material quality and layering. That is why people are loving the idea of experimentation and flexibility with modular options. Granted. Products and innovations that empower a customer to experiment with and personalize a living space work splendidly. But is it child’s play yet?

Modularity is a swiftly-growing market in itself and it is attracting home-furnishing players, furniture majors and mattress-players alike. The point is to ride this wave without overlooking the imperatives and new customer expectations it stirs up.

There are many other factors that have to be addressed too. The furniture market is highly fragmented because of international and national presence of vendors. Along with being disintegrated the proficient labour, shipping facilities and infrastructure are a constant obstacle in furniture market, reasons Dr. Veena Tripathi, Leadership Coach- Work-Life Harmony, Author, Consultant and Associate Professor, Jaipuria Institute of Management, Ghaziabad

Modularity is beautiful when it is as much fun and personalized as opening a Lego Box. A little recklessness can make this like a sloppily-stacked row of dominoes. And there, if one card falls, the entire chain can come crashing down. The point is - Whether it is business strategy, execution or user-centricity- here, every domino counts. **CT**



Abhishek Sharma, Founder,
Bhagwati Foam Industries

A good night of sleep-goes far – into a good and productive day

Abhishek Sharma, Founder, Bhagwati Foam Industries

gives a lowdown on why now is the best time to serve customers with products that add to health in their lives. He also shares why non-standard sizes, regional advantages, in-house manufacturing and GST have played as strong factors for changing the face of the industry.

Q Tell us about your forte and history in the foam industry? How did you start and what made you focus on the foam industry when you begin?

The company was conceived in 2007 and started operations in 2008. My father was into retail and distribution of foam. His experience, spanning a good 45 years, is a strong advantage for our company. When I joined, we decided to do backward integration in manufacturing. With his vast experience, we could offer a good range of products, with strong technology-driven products.

We could cater to good customer experience. We are now very knowledgeable on good technology and manufacturing expertise. For us, everything is manufactured in-house here. Our forte lies in consistent quality that we supply, along with dedicated service and dedicated research & development. The R&D team looks into what products should be tested, tried regularly and brought in to the market as and when they are required.

Q You are strong as a regional player? Any plans for expansion? We are active in Maharashtra, Gujarat and some parts of Madhya Pradesh and

Telangana. We do intend to take our products to southern and northern parts of the country. Through e-commerce, we are able to reach out to pan-India areas, and easily. We have practically covered the entire country. But we also want to extend our retail network to cover the more regions.


Q What are the opportunities and gaps in the industry – from your experience here, so far?

Firstly, the opportunities have come up well in tier-2 and 3 cities. A good level of demand have come from these cities. They are showing high consumption levels. A lot of new towns, construction and infrastructure are coming up in the country. In the pandemic, a lot of people moved to bigger spaces due to the work-from-home trend. People who are buying bigger houses are spending more. People have also realised after the pandemic that life is uncertain. They want to buy better quality sofas, furniture and mattress. People pay attention to comfort now.

The opportunity is now big on health. We, as an industry, have a big chance to make the most of these trends, this heightened awareness and health-orientation. We can make products that

help to improve lives of people and help them to sleep healthier. Plus, a lot of opportunity has opened in the online space. Tier 2, 3 cities and exports can also contribute a lot in many industries – now that some countries do not want to depend on China.

Q And gaps? Non-standard sizes are still a challenge for the industry. We need to work a lot on that as an industry. If bed manufacturers can align well with the industry, it will eventually help the customer. When production costs go down and efficiencies improve, that is a good result of such alignment. Also, slowly the unorganised segment is coming into the organised ambit – specially after GST. Things are getting more streamlined.

This was a gap earlier but now it is an opportunity. Now everyone is on the same platform and slab. It is now one country and one rate. These are such gaps that are filling well now. We, as an industry, should try to educate the customer more on sleep-health. We need to create awareness on the advantages of productivity, efficiency and overall health that come due to a good-night's sleep. 



Fire safety and mattresses – Strange bedfellows

Frequent, and serious, fire accidents are an inevitable part of the mattress industry. This fire-fighting needs both strategic, and tactical, understanding of this challenge. Let's douse some ignorance and climb well to the tall storeys of safety-compliance

If you were told that accidents on staircases generally outnumber those that happen on roads or in other scenarios; you would roll an eye and dismiss this as a joke. But would you be able to turn a blind eye to accidents that happen every year, and everywhere, due to mattresses? Is mattress not something we sleep on- something that is supposed to give us a carefree noon or night? Then why is it so risky?

Let us rewind the year just slightly. Around April 2021, Indianapolis reported a fire and fire crews were flocking at Pennsylvania St. for handling of a fire on the fourth floor of a building. Investigators concluded that the fire happened from a mattress on fire. Then in May 2021, a class action suit was filed in Texas against Cueto. It related to its product Zinus that has a removable outer cover with a zipper which leads to dangerous exposure to the glass fibers inside. A mattress cover as a fire safety barrier - yes, became the centre of a major lawsuit.



The mattresses are made of chemicals that can catch fire quickly and can be risky some times. Mattress companies offer many safety instructions for consumers while buying a mattress

According to the safety regulations from the **U.S. Consumer Product Safety Commission (CPSC)** first issued in 2007, it is a requirement for all mattresses to contain flame-retardants so that each mattress can withstand exposure to an open flame for a sustained period of time.

These guidelines were issued to create safer products that can withstand fire for longer periods of time so in the case of an incident with something like a candle or a cigarette, you have time to safely exit your home and/or extinguish the fire.

In May 2021 itself, a mattress fire broke out in a block of student flats in Birmingham city centre – bringing about 25 fire-fighters to the scene. Again the fire involved a mattress inside a flat on the 10th floor of an 11-storey student-accommodation.

Turn a little ahead and you see that in June 2021, a warehouse fire in Stockton was reported and it related to DR3 Mattress Recycling. Back home, in the same month, a fire broke out at a mattress manufacturing unit at Vattepally in Mailardevpally giving minor burns (and a reported loss of Rs. 20 lakh) to the owner and calling eight fire tenders into action to control the

fire. Authorities attributed this to huge quantities of coir, foam and plastic material that were stored in the unit, and that abetted the fast spread of the fire.

As we can see, it is not an exception but quite a regular occurrence. The harmless looking mattress packs so much inside that it is the most risky thing to catch fire in your house – after that petrol tank in your car.

Shall we get a peek and get better equipped to handle this issue?

Risky to sleep in here?

As hard as it is to believe, yes a mattress can catch fire quickly, and some tend to burn faster than others. In Dayton's news statistics, over a five-year period, nearly 400 people died from fires that started in a mattress, while another 1,300 were injured, according to WPXI. Also, as per what fire experts estimate – one does not have much time (hardly two minutes) to escape a burning home. That makes a mattress more dangerous as it ignites very quickly.

When a test was done by fire crews and WPXI – it was observed that among new, old and refurbished mattresses, a new mattress burned slowly and began to snuff itself out. But an old mattress became fully engulfed – and in just eight minutes. In ISPA mattress-fire tests, as per some 2019 data, refurbished

mattresses have been noticed to catch on fire and burn quickly.

Ask Amos Mark, Assistant Professor, Pacific Institute of Fire And Safety Management, and he avers that mattresses are risky from the perspective of fire accidents. "The presence of a lot of synthetic material, coconut, coir etc. is the prime reason. Also the smoke that comes out is dense and quite suffocating in its impact. The heat density is long and rapid in the area where a fire happens." Although he has not many cases related to mattresses, he has found poor house-keeping and equipment management a big factor of safety negligence. These reasons can accelerate, and worsen, the impact of a mattress-related fire incident.

"Usually 16 percent of oxygen is enough for fire and 19.5 percent is what humans need to breathe. People make mistakes due to confusing assumptions about oxygen. We cannot be careless about indoor issues when it comes to fire-safety."

Mr. K Ilango, Divisional Fire Officer, Dte of Fire Services, Government of Pondicherry echoes that the risks of negligence can be quite high. Can mattresses be a high-risk factor for indoor fires? He says yes, and has observed a lot of cases, specially when they are near to an AC. "Wires can easily cause sparks that can travel down a



curtain or fall on a mattress lying just below on the floor. This is very probable with houses that have elderly people and where mattresses are kept on the floor. In the night hours, people are unconscious of these sparks and in no time these sparks can turn into a dark and smoke-clogged room.”

Being reckless is not an option – even when we are sleeping. We should not be. The law reminds us too.

Even back then when mattresses were not sophisticated in design or legal aspects, they were highly flammable and contributed significantly to house fires. That is what spawned enactment of the Flammable Fabrics Act (FFA) in the 1970s in the USA. Here, the Consumer Product Safety Commission (CPSC) set down regulations for mattresses and mattress pads. The federal flammability standard (16 C.F.R. § 1632) was promulgated in 1973 and it required ignition resistance of mattresses and mattress pads to smoldering cigarettes. The standard was applied to all stripes of mattresses—crib mattresses, futons, mattresses in sleeper sofas and campers, and water bed, air mattresses containing upholstery materials, mattress pads and covers. The federal Standard for the Flammability (Open-Flame) of Mattress Sets (16 C.F.R. § 1633) then became effective in 2007. It was focused on raising the time that consumers have to discover and escape

bed fires by limiting the size of the fire generated by a mattress set. Laws started making sure that mattresses meet the performance, labeling, and record keeping requirements in the USA.

Since the mid 1990s, about 40 recalls of mattress and mattress-related products have been conducted. Enforcement saw a jump since 2005 and hit a peak in 2015 with seven total recalls occurring that year. That is why the 2007 standard for mattress flammability from the Consumer Product Safety Commission (CPSC), known as 16 CFR Part 1633, was brought to the fore to control the danger of bed fires sparked by flames. These fires had caused about 95 deaths annually from 2002-2005. The National Institute of Standards and Technology (NIST) shows that the standard prevented 65 deaths from bed fires annually in 2015 and 2016.

This stresses the need for better and stronger compliance models in this industry. Something that will take effort, but is possible.

A cue for the industry – To smell the smoke

When the International Sleep Products Association (ISPA)—the trade association for the mattress industry—collaborated with the NIST for a new mattress flammability standard, the research team tested the Heat Release

Rate (HRR)—an indicator of how intensely something burns, measured in watts—of some materials.

This led to a special test apparatus composed of twin propane burners that could mimic fires generated by an off-the-shelf set of bedclothes. Now manufacturers could test their mattresses against conditions that simulate real-world bedroom fires.

Tests progressed on fire-resistant fabrics—and made way for prototypes to lower their HRR.

So bringing down the HRR of a mattress with the right material and design can really help a lot. What also matters is innovation that can make sure the burning mattresses will not spark a ‘flashover’. This is a condition where the room becomes so hot that all other combustible items in it—clothes and furniture- get ignited instantly and together.

When the researchers burned both prototype and commercially-available mattresses, they could measure the flow of heat to several spots around the room. It was unravelled that a mattresses with a peak HRR of about 600 kilowatts (kW) or more would

The export mattresses has some norms on fire safety. In India there is no rule or legislation as such for fire safety. Mattresses are at home. I feel home is the most dangerous place for the fire. Whether it is the curtain or oil Gas in the kitchen, lack of knowledge in using the electricity, all the furniture the the home that is made of wood or plywood so home is definitely more dangerous place. In India we do not have any standards for Fire safety. When you adhere to higher standards, cost goes up. It has to be an industry initiative or government led legislative. It cannot be done by individual companies.

Dr. Mahesh N Gopalasundaram, Chief Operating Officer, Sheela Foam Ltd.

Fire safety is an important issue and should be addressed seriously. Doing so will help both the industry and its customers. It can be done in a step by step way. From process levels, using fire-resistant adhesives to use of fire-resistant foam and also to the use of fire-resistant fabrics - a lot can be done to strengthen fire-safety in this space.

Pankaj Gupta, Director, RP Foam

Ravi Prasad, Chief Product Officer, Kurlon adds that customers have to be responsible when they use lighters, ash trays etc. near a mattress.

trigger enough heat to reliably ignite soft materials. The commercial king- and twin-sized beds showed peak HRRs far above this value.

Prototypes started aiming for 400 kilowatts for a king-size bed. So when a mattress burns below 400 kW, it slows down the chances of a 'flashover'.

CPSC's standard requires that mattresses maintain an HRR under 200 kW - this is after being ignited by the burning-bedclothes-simulating burners. This became effective on July 1, 2007.

The Rise of Fire-Retardant mattresses

Tests, standards and collaborations like these have brought the issue into the spotlight. Today a lot of mattresses contain flame-retardants. But there is a downside to that too. Some flame-retardant chemicals can be quite toxic and harmful - like death by a slow fire.

According to the National Institute of Environmental Health Sciences (NIEHS), flame retardant chemicals are present in furniture, electronics, building and construction materials, and transportation products. The idea is to prevent the start or slow the growth of a fire.

Indian mattress companies test ignition resistance of their product before releasing it to the market offering safe products to the consumers

But NIEHS also acknowledges that there is continued evidence that flame-retardants could potentially have dangerous effects to humans and animals.

While flame-retardants are mandatory for some mattresses to pass flammability tests for safety, this should not excuse the use of toxic chemicals in here. Alternatives like wool, latex, and rayon work better as natural flame-retardants.

So a mattress has to tread a thin line - between fire safety and chemical safety.

This is exactly why the industry has to ramp up efforts in creating radical products and using material that holds up the true need of consumer safety - not just for law but for actual impact. And the industry is gearing up well for this demand, argues Ravi Prasad, Chief Product Officer, Kurlon.

"The industry has been working on a lot of options like fire-retardant foam and fabric that use a specific chemical. Specific segments like four-star and five-star hotels and international customers need rigorous features on this aspect; and the industry has always catered to that demand very well. I can see that the industry is already geared up to face such needs and Indian players are not behind anyone in this area. A lot of players also deliver to specific regulatory standards when they serve global customers. In India, customer awareness is still relatively low except for hospitality segments. But we do have the capability to take care of this

concern."

As to consumers, they cannot shrug away responsibility. The long and stretched-out lifecycles of mattresses, the poor upkeep of these products and negligence to fire-safety are areas where a user cannot be blame-retardant.

Better Safe Than Burnt

Mr. K Ilango, Divisional Fire Officer, Dte of Fire Services, Government of Pondicherry strongly recommends that just having a fire safety equipment is not enough, one has to be conversant in using it. "Do not keep kerosene or oil in the rooms where mattresses are kept on the floor. In such rooms, keep some dry chemical fire extinguisher powder for ABC categories of fire handy. Make sure you have your AC cables etc. regularly checked because they can get easily over-heated and are not visible. Proper maintenance and repair is a must. Do not have windows, curtains and mattresses very near to an AC."

Also, people should keep in mind that during a fire-accident, the opportunity for escape is a small window. With a lot of carbon monoxide and flames around, it would be a double whammy if the victims are actually asleep when the incident happens. So being alert and investing in alarms, extinguishers and fire-balls is a must. Amos Mark, Assistant Professor, Pacific Institute of Fire And Safety Management advises on teaching children about basic tips and safety measures. "A ball is very easy for a child to deploy. Be cognizant of such solutions."

Things like keeping space heaters 3 feet from mattresses, having the door closed to prevent fire from spreading, ensuring that no one is smoking in bed, keeping the smoke alarm in working condition, and avoiding too many electronics or appliances around bed - these are simple tips to say, but hard to be seen in the real-world out there.

Incidentally, or ironically, the best fire escape is not a window or an elevator but a stair-case. Even though you can trip there. It's better than getting burnt down. **CT**

How acoustics influence sleep

Whether you had a sound sleep or was disturbed by some noisy event, sound has the potential to cause annoyance and disturb your sleep.

To really have a comfortable bedroom, many design aspects must be right to be able to enjoy an absolute sense of relaxation and have peace of mind. Some of them are room space, ventilation, lighting, temperature, humidity, mattress and physical environment of that space itself and sound.

Sound generally has an effect on our sleep and ability to relax, quiet background noise level without any impulse sounds will help us relax. Whereas, transient and loud background noise levels will not allow us to get rest and will keep us agitated.

Effects of sound on Sleep

A normal house is surrounded by multiple sound sources which all have the ability to cause intrusive sleep and relaxation. With the advent of appliances, electronic music, loud outdoor road traffic, smaller houses and numerous other things (impact noise from upper floor level, kids playing in the vicinity, adjacent construction noise etc.) it's difficult to have a quiet spot in a house. I am not saying we don't use modern technology and gadgets but, they all have the power to cause annoyance if not carefully designed to keep the noise & vibrations at check.

The intensity and severity of annoyance is different for each individual, and some people are more sensitive than others. Usually impulsive or non-rhythmic sounds are more problematic and are more likely to wake people up. Sounds that are bearable during the day can be bothersome during night, like leaking faucets, clock ticking, dog barking, distant honking, lift traveling, or adjacent neighbour kids playing.

Over time, people can also become used to, or "habituated to", noises in their environments, resulting in less effect over time. But it still does not mean that the effect of sound on sleep will not be there. Thus, it is important to isolate these noise sources for a comfortable and peaceful sleep.

Effects of irregular sleep due to sound

When we talk about sleep and relaxation, it automatically means being deprived of noise & vibration and any intrusion from the external world. Loud noise exposure causes hearing problems, but it also affects us at a more subtle level. It is well proven and experienced that noise exposure for sustained periods of time can cause stress, hypertension and anxiety problems among people and can cause physiological imbalance. It can also increase blood pressure and make a person irritable.

The World Health Organization has defined noise as a potential cause for adverse health and Social effects. There are seven categories of noise pollution, occupational, social or environmental, hearing impairment, interference with spoken communications, cardiovascular disturbances, mental health problems, negative social skills, impaired cognition and sleep cycle disturbance.

Tampering with sleep cycle has been considered as the most harmful non-auditory effect because of its impact on quality of life and daytime performance. As our cities are growing the problem of outdoor noise is becoming more and more prominent.

Disturbance in sleep has also been associated with an increase in violence acts, domestic violence, work and road rage actions. Similarly, irregular sleep patterns are also linked to obesity, diabetes, depression, aggressive behaviour and general anxiety.

Using Sound to sleep

White noise can be beneficial in providing deeper sleep as it makes a

consistent background where impulsive noises are less intrusive. This technique of adding white noise into a room is called "sound masking", which increases the overall noise level of the room thus negating the effect of transient noise signals. Studies say adding white noise source into a bedroom helps babies sleep better but for adults it's not all the same, some people like some hate.

Problems due to ignorance of acoustic design.

- Poor sound isolation and annoyance from exterior or building system noise sources.
- Presence of echoes taking longer for sound signal to decay.
- Uncomfortable and unbalanced environment which can lead to stress and other discomforts.
- Loss of productivity.
- Deprived of sound sleep/ relaxation.
- Poor isolation for vibration induced noise from mechanical equipment like Lifts, DG, motor/pumps etc.
- Sound transmission from vertical plane (activity happening on above level) due to any physical Impact (e.g moving furniture, kids playing, high-heel footsteps, vibration from speakers etc.)

How to treat sound ?

Environmental noises or internal noises from building systems are unavoidable and will occur, but that should not stop you from having a good sleep. There are few ways to isolate structure and airborne noise, rather than adding artificial noise sources (white noise) within the room to help sleep and relax. **CT**



Siddharth Gupta, Director,
Unidus Décor, Acoustics
Design & Build company

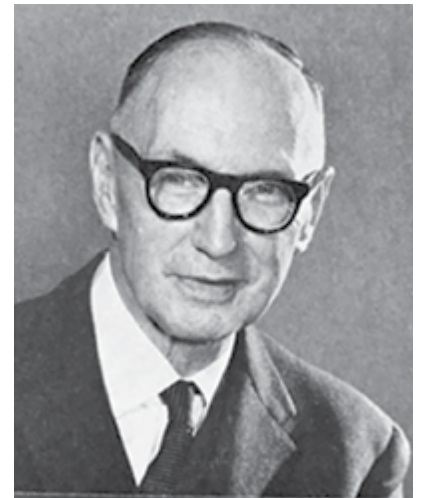
King Louis XIV of France reportedly owned 413 beds!

From 1643 to 1715, King Louis of France built a routine of immense luxury, design and excess into his life - including 413 beds across all of his palaces. He really was all about beds!



Latex Foam was Invented Using a Cake Mixer and a Steam Oven!

Latex Foam - now one of our favourite elements for mattresses - was created by EA Murphy, a scientist working for Dunlop. In 1926 he attempted to make the perfect, lightweight foam with liquid latex, but the bubbles refused to stay in the rubber. It was his wife who suggested a cake mixer and a steamer - and it did the trick.



The Largest Bed in the World was Built in 2011

The Summer Festival of St Gregorius in Hertme, the Netherlands broke the world record with a luxurious bed that's 86ft wide and 53ft long. Interesting right?



Over the Course of Ten Years, your Mattress will Double in Weight!

This is a gross fact about mattresses you're sure to remember. A mattress naturally deteriorates over its lifespan, and, simultaneously, loads up on dust, mites, skin cells and sweat - to

such an extent that your mattress can grow far, far heavier. After ten years, your mattress will be less comfortable, less durable and, crucially, far, far less clean.

Mattress Tags are a Legal Necessity!

Mattress tag contains important information about the mattress and its age, which is essential in maintaining a good night's sleep and a quality product that bed makers from around the world can be proud of. Mattress tags inform companies of batch numbers, ensure fresh materials and new manufacture. During the 1800s, many mattresses would be filled with scraps and old fabric that was capable of spreading disease. Hence it is legally important to provide correct information on the tag.

Source: <https://www.happybeds.co.uk/>



Priciest bed!

Are you curious what the priciest bed in the world is? It's the Baldacchino Supreme bed that's handcrafted out of chestnut, ash and cherry wood as well as 24-carat solid gold. It's adorned with fancy applications that look like gold leaves and, for some more bling, the headboard can have customizable diamonds or other stones implanted. This gorgeous bed is covered with only the finest cotton and Italian silk. So what's the price of this lavish bed? \$6.3 million!

<https://www.nestbedding.com/>



The Princess and the Pea

Hans Christen Anderson, a prolific writer who wrote "The Little Mermaid", also wrote "The Princess and the Pea" in 1835. The story famously uses mattresses as the principle plot mechanism for determining that the title character really is a princess. Apparently princesses are so sensitive they can feel a pea under twenty mattresses. No word as to how that makes sense.

Waterbeds

Waterbeds are an interesting invention. But did you know that it was actually made more than 3,000 years ago? In Persia, the very first waterbed was created with goatskin and stuffed with water. A more modern waterbed was created in 1873 by Neil Arnott; it was used in a hospital to treat and prevent bed sores. Twenty-two years later the bed, which resembled a huge hot water bottle, became available by mail order from a British store; unfortunately, there weren't enough materials so it kind of died out. However, when vinyl was invented in the 1960s the waterbed rose in popularity and it was given the name "Pleasure Pit."



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