

# PrintWeek

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## THE BOOK OF Trends

The **Print-Publishing-Packaging** industry proves success is about creating something new.



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## EDITOR'S NOTE

**T**he Book Printer of the Year (Education) award submissions highlighted staggering production numbers, with some exceeding 100,000 copies for education books and guidebooks. Innovative use of two-colour printing (black with a Pantone colour) to highlight text was observed. Diverse paper grades and suppliers, including Indian suppliers, were utilised. Uncoated paper was specifically deployed for medical books, and 60- and 50-gsm papers for UPSC and NCERT textbooks demonstrated excellent production quality with no see-through. Advanced finishing techniques were emphasised, including gloss lamination, UV coating, cover pasting, section-sewing, perfect binding, YAP, corner gilding, debossing, round back finish, head and tail bands, intricate debossing, edge gold gilding, slip cases, hot foil stamping, embossing, and varnishing.

Key trends to watch include the use of 56 to 60-gsm paper for durability and low cost, conversion from RGB to CMYK, expertise of bookbinders with diverse materials, and precise execution of finishing processes. The ability of printers to handle large-scale production and ensure tremendous coordination between various departments was highlighted. The shift from traditional behemoth machines to more sturdy, made-in-India machines was also noted.

Meanwhile, the speciality and trade book production sector was characterised by a fusion of intricate craftsmanship, sophisticated technology, and stringent quality control. Where India scores high points is: Multi-stage binding complexity and material handling and inventory coordination, as well as stringent production disciplines and synchronisation across departments, and post-press embellishments.

The Book of Trends underscores the industry's unwavering pursuit of perfection, driven by an exceptional ability to manage complex technical processes, diverse materials, and tight deadlines, resulting in publications and packaging that are not only visually stunning but also enduring in their quality and craftsmanship.

Happy reading!

*R Ramanathan*

Ramu Ramanathan, Editor  
PrintWeek and WhatPackaging?

# The Unfinished Eulogy

## WHY THE PRINTED BOOK REFUSES TO DISAPPEAR

**T**his Book of Trends is a celebration of our time — the printer, bookbinders, and converters adapting to the 21st century.

Just as the 17th-century scholar Robert Fludd managed the miracle of publishing multiple books a year with galley proofs crossing from England to Amsterdam and back, today's industry, particularly in India's smaller, inland towns (mofussil towns in Gorakhpur, Gadag, Ganapatipule, Guntakal, Guntur), is demonstrating fantastic adaptive capacities. They are continually reorganising mental habits and work processes to invest in new systems required by the unforgiving pace of technological reinvention.

In 2008, a futurologist speaking at the World Economic Forum in Davos made a somber prediction: the permanent eclipse of the printed book. Yet, as 2025 whizzes by, observers argue that the obituary for the book was written in haste. Far from vanishing, the printed word is engaged in a quiet but powerful "re-legitimisation," poised to recover its dignity and, more importantly, its authority in a world drowning in technological spin-offs.

The counter-argument to the book's demise rests on its inherent, almost biological nature. Unlike "modern inventions" such as cinema, radio, and the internet, the written word is seen as a biological extension of the hand. It is likened to the wheel—an invention that, once perfected, remains an indispensable part of human experience.

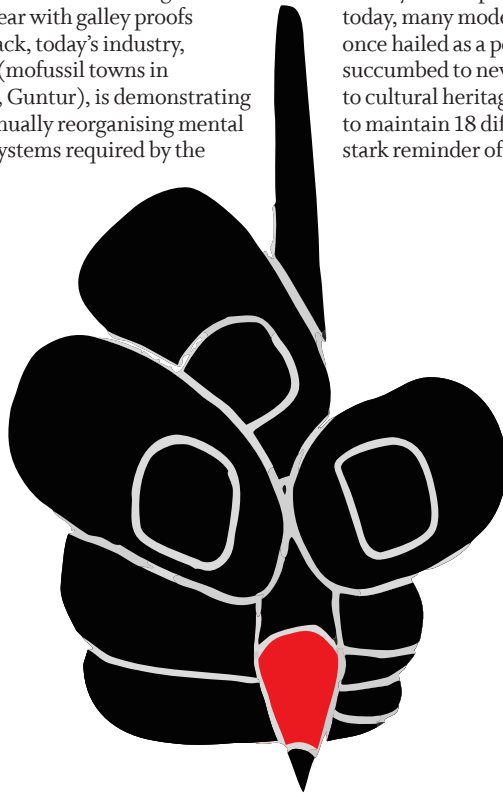
And so it is with a brown box or mono carton or well-produced label. Proponents argue that despite the relentless pace of technological change and the mutation of mainstream education (seen clearly during the Covid-19 pandemic), the core function remains unchallenged. The "young competitors" have not yet taken over the fundamental roles that the book performs.

The resilience of the printed page is highlighted when contrasted with the ruthless obsolescence of digital formats. While a 500-year-old printed incunabulum remains entirely accessible today, many modern media formats are already relics. The DVD, once hailed as a perfect, lasting solution for data storage, quickly succumbed to newer formats. This ephemerality is a serious threat to cultural heritage. One anecdote recalls a contemporary having to maintain 18 different computer systems to view old digital work, a stark reminder of how rapidly technological shifts can make content inaccessible.

Historically, the book has proven to be a repository for preserving civilisation against destructive forces. The tragedy of Nobel laureate Octavio Paz's library burning down, which claimed irreplaceable signed copies from surrealists, underscores the profound importance of physical collections.

More powerfully, during the Mongol threat in the 11th and 12th centuries, intellectuals fleeing the destruction of centres like Balkh (including the father of the poet Rumi) famously took their most precious manuscripts with them, using them as pillows on the road to exile. These books, not jewels or carpets, are the surviving reminders of a great Persian civilisation. From the scrolls of Roman antiquity to Egyptian papyri and 4th-century manuscripts, the physical book has defied religious censorship, fires, and constant "erasure" to ensure the continuity of culture.

Ultimately, the book or box is more than a technical or business proposition. It is "like a bicycle, a spectacle, a shoelace". Once perfection has been achieved, it cannot be improved." This enduring perfection is what allows the humble printer or commonplace converter's work to be celebrated as a "silent avatar" working to ensure that the work, an entity which goes beyond the nature of impermanence, remains a cornerstone of the human race. ■





# Trends In Education Books

# MANAGING LOGISTICS WITH LARGE PRINT RUNS

**A** review of the submissions for the Book Printer of the Year (Education) Award during the 15th edition of PrintWeek Awards reveals several key trends and impressive innovations in book production in the education category

### Large-scale production

First things first. One key trend was the staggering production numbers. Many book entries showcased high print runs, with some exceeding 100,000 copies, alongside runs of 1,000, 10,000, and 20,000, particularly for education books and guidebooks. Numbers like 25,000 and 50,000 runs were common for textbooks.

Upon opening the book and flipping through the pages, what struck our eyes was how book printers have demonstrated an innovative use of two-colour printing, combining black with a Pantone colour to highlight text and enhance visual appeal.

The ability of printers to handle large-scale production and ensure tremendous coordination between various departments (press and post-press) was highlighted as key to successfully integrating complex features like hot foil stamping, section sewing, hard case binding, rounded spines, and ribbon insertion into a single functional and durable book. The shift from traditional behemoth machines to more sturdy, potentially less expensive, made in India machines was noted. The perfection of paper engineering, folding, book sewing, and book block creation were emphasized as critical advancements.

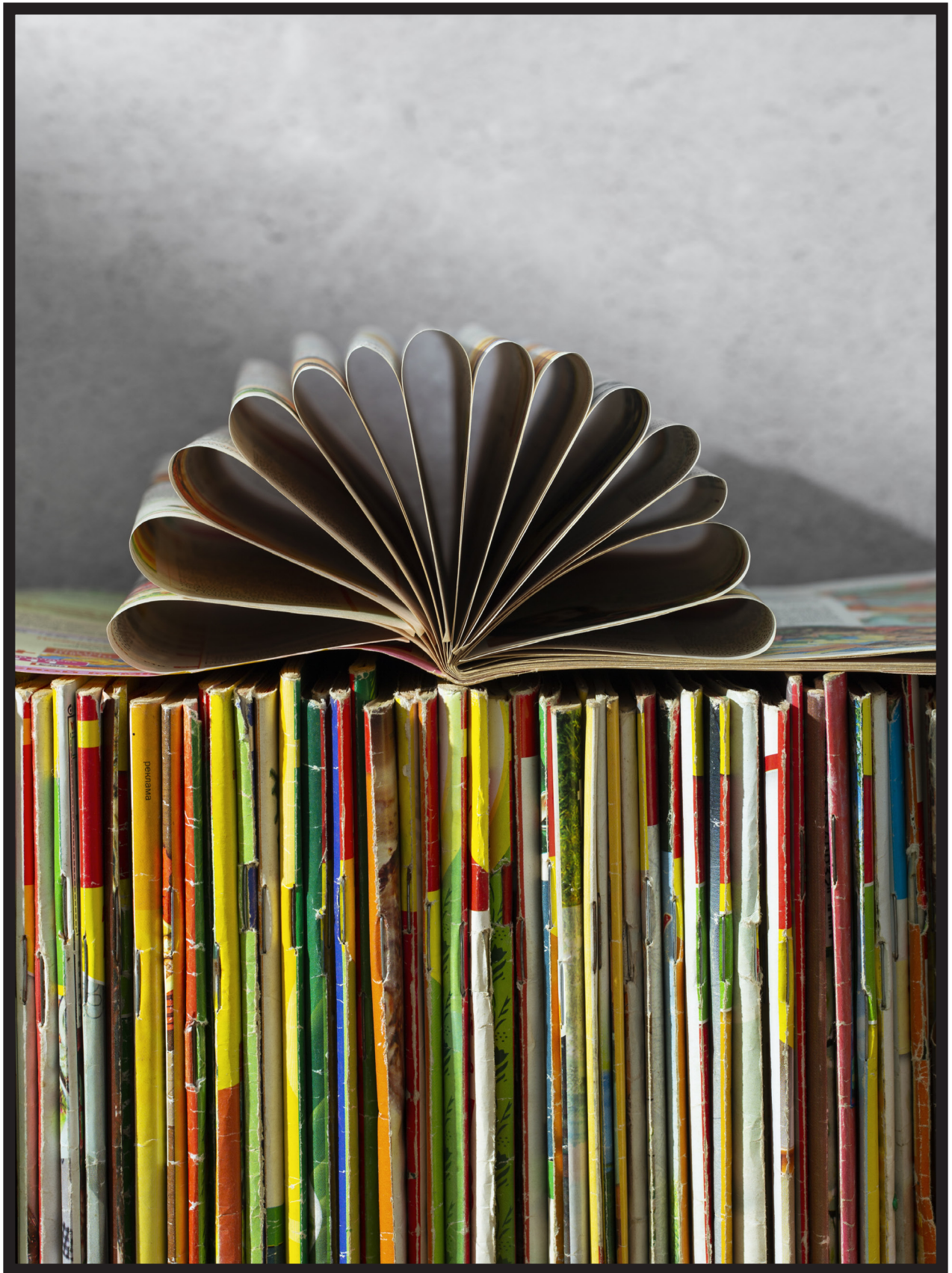
### Indian paper

In view of the supply-chain crisis, we saw diverse paper grades and suppliers: While Holman was a common name, an increasing number of book printers are utilising paper from Indian suppliers, such as BILT, TNPL, Khanna, and JK. There was also a notable use of paper grades, including 50- and 60-gsm, particularly for UPSC and NCERT textbooks, demonstrating excellent production quality with no show-through. Uncoated paper was specifically deployed for medical books to allow students to jot down their notes on the pages.

Key trends to keep an eye on include the use of 56- to 60-gsm paper for durability and low cost, particularly for revision notes, tables, and facts, ensuring books are light and easy for students to carry. Also, what got a nod from the jurors was the conversion from RGB to CMYK, plus the expertise of bookbinders working with diverse materials (grayboard, art paper, metallic finish end sheets), and the precise execution of finishing processes like size trimming with a three-knife trimmer, ensuring no delta difference of even 0.10-mm, were deemed crucial for a premium

### Advanced post-press

What stole the thunder was advanced finishing techniques. Jurors concurred that ▶



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there was a solid emphasis placed on post-press processes. The finishing techniques that we observed included gloss lamination, UV coating, cover pasting, section-sewing, perfect binding, YAP, corner gilding, debossing, round back finish, head and tail bands, intricate debossing, edge gold gilding, and slip cases. Hot foil stamping, embossing, and varnishing were also prominent.

Here, it is important to highlight that print firms across the country are making strategic investments in advanced post-press machinery, particularly binding technology, to boost production capabilities, enhance operational efficiency, and meet the growing and evolving demands of publishers and consumers alike. This widespread adoption of modern binding solutions is not only enabling firms to handle larger volumes and expand their service offerings but also ensuring the timely delivery of high-quality finished products.

A key trend witnessed in the Indian print landscape is the move towards bringing bookbinding services in-house. Traditionally, printers would often outsource binding or direct their customers to specialist binding houses for print finishing. However, for the past few years, there has been a noticeable shift as print firms recognise the advantages of integrating binding into their own operations. This allows for speedier service, greater control over the entire production process, and makes managing complex publishing projects significantly more manageable.

#### **Standout samples**

Education books often featured text in two colours and graphs in four colours to clearly highlight concepts. Most importantly, the weight of the book was light, and the size of the book was easy to handle.

A dictionary sample featured perimeter stitching on a 2.5-mm board case-bound book, requiring extensive trials, combined with foiling and gilding for a premium look. The point is, book printers are increasingly providing comprehensive solutions to publishers and universities, including flexible books, rounded covers, elastic closures, sticker sheets, and overall flexibility within the book design.

To sum up, the submissions for Book Printer of the Year (Education) demonstrated a blend of large-scale production capability, sophisticated finishing techniques, creative material usage, and meticulous craftsmanship, all geared towards delivering high-quality, durable, and often innovative books. The emphasis on post-press processes, meticulous coordination in the book factory, and problem-solving for a specific publisher's needs stood out significantly. ■



# THE RISE OF ENGINEERED PAPER BAGS IN INDIA

A segment transforming through design,  
sustainability and technical skill



**Structural design is now inseparable from brand experience. A well-engineered bag signals care, communicates quality and offers reliability during real world use.**

The Indian paper bag industry is shifting into a new phase of relevance and ambition. The Packaging Converter of the Year (Paper Bag) at the PrintWeek Awards 2025 reveals that what once sat quietly as the humble brown carrier for bakeries, bookstores and chemists has become a fully engineered component of the modern packaging mix.

Plastic reduction policies, the growth of eCommerce and qCommerce, and a growing consumer preference for responsible packaging have pushed the segment into a space where design, structure and material behaviour matter as much as print and branding.

Indian converters today produce close to one and a half million bags and pouches daily. Yet the real transformation is led by the companies that operate at the intersection of scale and precision. Their work shows how paper bags now deliver performance, protection and brand expression with a level of finesse that was once associated only with cartons or rigid boxes.

#### **Structural design drives performance**

Paper bags in India have evolved into structures defined by engineering rather than habit. What used to be straightforward folding and pasting has grown into a deliberate process built around weight distribution, rigidity, geometry and user experience. Converters are using deeper gussets, reinforced walls, intricate punches and precise crease lines to create forms that carry weight comfortably while maintaining their column strength.

The PrintWeek Awards submissions make this evolution visible. Screen Art Enterprises produced bags in runs of one hundred, three hundred and one thousand units, each built on different substrates and structural choices. Dedhia Jewellers used a two hundred and seventy gsm JK Altima board with a reinforced finish. Mousmi's Westwood bag used a three hundred gsm art paper with customised fabrication. Open Design selected Rendezvous paper to suit its design language. SDS used black C2S paper with lamination and screen printing for a high strength finish. Each job

demonstrates the shift toward tailored structures designed around brand and function.

Large bags continue to demand hand skill. Bags as large as sixteen inches in height with wide gussets cannot be fully automated. They are folded and pasted by trained workers, often two people to a sheet, to maintain perfect alignment and neat finishing. This blend of craft and controlled production gives the category its distinctive advantage.

Structural design is now inseparable from brand experience. A well-engineered bag signals care, communicates quality and offers reliability during real world use.

#### **Printing Elevates Brand Impact**

Print quality and finishing have grown into essential tools of brand expression. Offset and screen printing still form the base, yet both are being used with far greater ambition and accuracy. Brands expect deeper tones, precise colour matching and clean reproduction of logos, patterns and gradients. The paper bag has become a surface where visual storytelling takes place.

Finishing techniques bring these stories to life. Foiling, embossing, UV accents, quarter tone blocks and lamination help add dimension and tactility. Denim brands ask for print that mirrors fabric textures and fading. Luxury brands ask for metallic accents that maintain brightness without overpowering the design. Full sheet embossing has also gained popularity, with cylinders creating uniform textures across the surface.

These trends appear clearly in the Awards entries. Dedhia's bags combined foiling with embossing. Mousmi's bag used UV and fabrication. Open Design executed one shot foiling on Rendezvous paper. SDS combined lamination with screen printing to achieve deep black density. Each execution shows how finishing has become central to brand identity, not a decorative final step. ▶



### Case study reinforces innovation

A recent assignment for a global lighting manufacturer highlights the industry's growing technical maturity. The brand needed to eliminate its last remaining piece of single use plastic. Its products were packed inside a paperboard carton but wrapped in a plastic sleeve to prevent scratches and manage humidity. The challenge was to create a fully paper based solution that protected the product without compromising strength or cost.

The converter responsible for the job reimagined a known papermaking process. Machine glazing is typically used on the outer surface of uncoated paper to provide smoothness for printing. In this project, the glazing was applied to the inner surface instead. This created a scratch resistant interior that prevented abrasion on sensitive light fittings.

The exterior of the paper pouch received a water-resistant coating that guarded against humidity while allowing the bag to stay



recyclable. The paper retained its tensile strength because the glazing and coating processes were carefully calibrated to avoid stiffening the sheet. This resulted in a durable and functional paper pouch that replaced plastic entirely.

The case study illustrates the direction of the industry. Paper bags and pouches now move beyond retail carrying tasks and into technical, protective applications. It shows how innovation often comes from rethinking familiar processes and applying them with new purpose.

### Sustainability shapes market direction

Sustainability the core principle guiding decisions in the paper bag industry. With policymakers strengthening plastic reduction efforts and customers choosing brands that act responsibly, converters are investing in materials and processes that reduce environmental impact without reducing performance. ▶

Bags made from recycled fibre and agri waste are becoming mainstream. Water resistant coatings that are free of plastic help maintain integrity during transport. Food grade liners support grease resistance for food delivery without compromising recyclability. Multi layered papers give tear resistance without synthetic reinforcement. Each innovation shows the industry's commitment to balancing responsibility with function.

Minimalist design often supports this approach. Clean surfaces, subtle textures and restrained artwork communicate naturalness and authenticity. This aesthetic works well for brands that wish to appear modern and environmentally aware.

Durability remains a priority. High load gift bags rely on thick boards, engineered gussets and strong rope or ribbon handles. Die-cut handles require underlays to strengthen grip. Metallic inks are used selectively to maintain recyclability while adding clarity. These structural choices ensure that sustainability does not mean fragility.

The case of the glazed protective pouch extends this thinking beyond visual design. It demonstrates how sustainability can reshape even the technical layers of packaging that are rarely visible to the end user.

#### Industry moves towards design leadership

The Indian paper bag sector stands at a point where design ambition meets engineering confidence. The bag is now part of a brand's



visual and functional strategy. Through precise printing, reinforced structures, innovative material treatments and sustainable practices, the industry has moved far beyond commodity status.

Brands are moving towards customised specifications rather than catalogue sizes. They want bags that fit exact dimensions, display accurate colours and maintain strength during repeated handling. They want handles that match the character of the brand and finishes that reflect the identity of the product inside. The PrintWeek Awards entries confirm this shift toward tailored, purpose-built solutions.

Converters combine automation with hand skill to meet these demands. They are capable of producing small and medium volume jobs with near identical consistency. This hybrid capability positions the industry well for future investment in advanced equipment and specialised materials.

The modern paper bag in India has become an engineered and expressive product. It carries weight, protects contents, promotes the brand and signals environmental alignment. Its evolution continues, yet the direction is clear. The paper bag is now a central element of modern packaging design. ■



# THE PREMIUM RIGID BOX INDUSTRY SHOWCASES

Innovation in design and luxury packaging

The premium rigid box industry is experiencing a surge in innovation, moving beyond simple packaging to create highly customised, functional, and aesthetically striking solutions. This year's PrintWeek Awards samples highlight a strong focus on problem-solving, intricate engineering, and the integration of premium materials to elevate brand storytelling and consumer engagement.

Rigid boxes have long been associated with premium goods. They are sturdy, elegant, and able to elevate the product within. At this year's Awards, the category displayed just how far rigid box packaging has travelled. The projects were diverse, spanning FMCG influencer kits, nutraceutical packs, luxury gifting, invitations, cosmetics and even real estate promotions. What united them was a blend of design, engineering and finishing that placed equal weight on creativity and precision.

This was packaging that was not content to be functional. It was designed to surprise, to delight, and to communicate. Boxes incorporated lighting, sound, magnet-free locks, AI-inspired design and even Lego-like structures. In some cases, they were engineered as keepsakes, intended to outlast the product itself. In others, they were designed to meet sustainability targets without compromising luxury cues.

#### Customisation becomes outreach

The demand for customised, small-batch rigid boxes is growing, fuelled by influencer marketing and direct-to-consumer outreach. Unilever's Holi PR kit, limited to just 100 units, was a prime example. Produced on an HP Indigo press with inserts cut on an Esko table, the rigid box combined Kappa board strength with EVA foam precision. The vibrant finish reflected the festival's spirit, yet the box retained a premium feel. It proved that even at low volumes, converters can create high-impact, luxury packaging.

Nestle's consumer research box, produced in a run of more than 1,000, offered an equally innovative approach. It featured two flaps that popped open and a ribbon-pulled tin can, ensuring the unboxing was memorable. The finish combined spot UV with a metallic sheen, printed on an HP Indigo 25K digital press. The turnaround was just 15 days, showing that rapid prototyping and production can now deliver highly engineered boxes at speed.

These projects highlight the way customisation is reshaping outreach. Influencer



kits and consumer research packs must stand out in crowded digital feeds. Every flap, ribbon, or reveal is designed for the camera, extending brand campaigns onto social platforms. For converters, this means aligning with marketing timelines as much as with production cycles.

The wider lesson is that rigid box converters are now part of brand communications. Packaging is not only a protective shell but also a medium for storytelling, designed to reach consumers directly and digitally.

#### Functionality meets luxury

Nutraceuticals and watches highlighted how rigid boxes must balance utility and elegance. A 25,000-unit project for hair growth capsules demanded precision in both colour and construction. The box converted CMYK green into Pantone 560C, carried raised UV textures, and held capsules in place with EVA foam cut to exact dimensions. Copper board grooving and paper punching gave strength, while a magnetic closure added convenience. Produced

on a Zhongke machine, it showed how converters manage multiple processes in-house to achieve large runs without compromising finish.

Vardhaman Marketing's watch box reinforced this point. The outer sleeve was engineered to open smoothly, with side-view cutouts framing the product. Edge pasting had to be flawless, and inside, a velvet-laminated EVA foam tray secured the watch. Four prototypes were required before the structure closed perfectly. This level of detail proved that rigid box converters are operating as designers and engineers, not simply manufacturers.

Functionality is increasingly a hallmark of luxury. Consumers expect packaging that reassures them about the quality and authenticity of the product. Secure closures, precision foam inserts, and carefully engineered folds are no longer extras but essential features. Luxury in rigid packaging is now defined by reliability and usability as much as by foils and varnishes. ▶

### **Gifting as a brand statement**

Festive and commemorative boxes demonstrated how rigid packaging doubles as cultural expression. Greenleaf's 15,000-unit dry fruit box for Diwali blended vegan leather handles with brass locks. Gold foiling and UV detailing gave it a festive aesthetic while staying within budget. It reflected how luxury can be delivered without excess, balancing premium cues with cost management.

A commemorative box designed for the autobiography of a textile industry icon took a different route. A magnetic lock and fabric handle added prestige, while the textured paper echoed the subject's textile legacy. The box complemented the book's theme, showing how rigid packaging can extend storytelling beyond the product to encompass history and heritage.

Adding another layer of ingenuity was the Ram Mandir-themed perfume set box. Produced in a limited run of 1,000 pieces, it combined structural creativity with devotional storytelling. The precision in printing, foiling and pop-up engineering transformed it into an unforgettable object of both reverence and design mastery. Similarly, A Barber's Legacy box, also a 1,000-piece run, featured a bold black exterior that opened to reveal a vibrant pirate-themed pop-up interior. Miniature hair-care products were nestled around a central acrylic plate that displayed the grand opening date, turning a functional box into a visual narrative.

The Majestic Rising box, a 2,500-piece production, took mechanical innovation further with a rise-up mechanism that lifted perfume bottles as the lid opened, integrating movement into the unboxing ritual. Completing the theme of form-driven storytelling was a book-style rigid box, crafted to look and open like a hardcover book. Each of these projects used structure to heighten anticipation, proving that gifting boxes are evolving into experiences of their own.

The most inventive gifting solution came in the form of a pyramid-shaped baby shower box. Produced in just five days, it contained three magnetic-locking blocks, each designed to hold gifts of different sizes. The Lego-like

design solved a functional problem while also creating a playful, premium keepsake. This project proved that rigid box converters are as agile as they are creative.

These gifting projects showed that rigid packaging is no longer a seasonal extra. It has become a core element of brand storytelling, carefully engineered to reflect tradition, occasion, and personality.

### **Engineering boxes into experiences**

Rigid boxes are now being engineered as immersive experiences. An invitation box for a senior citizen vacation home was styled like a jewellery case. It had a seamless single-piece frame, lined compartments, and magnetic locks. A round magnet resembling a wax seal enhanced exclusivity. The project conveyed care and elegance, setting expectations for the brand experience before the recipient had even opened the box fully.

Sustainability also shaped engineering decisions. A beverage tray design held a bottle in place using a self-locking slot at the base, eliminating the need for magnets. Fully recyclable and plastic-free, it delivered luxury without compromising environmental credentials. A repeat order of 20,000 units confirmed that sustainable innovation can deliver commercial success.

Perhaps the most elaborate example was the Ganpati mandap box created for a real estate brand. Built on Kappa board but styled to resemble carved wood, it incorporated CNC block filing, foiling, embossing, light and music. It contained trays for invitation cards and sweets, held together with 12 screws and 19 punches. This was more than packaging. It was an installation, a festive centrepiece designed to embody cultural and brand values.

These projects proved that rigid boxes are no longer passive containers. They are engineered experiences, designed to captivate and immerse, merging tradition with innovation.

### **Advanced printing and finishing**

Printing precision was central to many projects. Whirlpool's PET box, produced on an Ultraflex press using 180-micron PET, required reverse printing for colour control. CMYK, ▶



Pantone spot colours, opaque whites, and silver foils were integrated seamlessly. Offline punching and careful registration with specially formulated inks and adhesives created a glass-like finish with a strong hierarchy.

High-end personal care brands also leaned on advanced finishing. One project utilised silver metallised self-adhesive to achieve brilliance while maintaining a balance of opacity and density. Another box for a luxury body oil used gold foils to accentuate Portuguese text, with matte varnish creating contrast against reflective areas. Precision in pressure and registration was vital to achieve crisp results.

These examples showed that rigid box excellence depends on mastery of print as much as on structural design. The ability to combine multiple colours, foils, and varnishes with precise registration is now a key differentiator.

#### Storytelling through design

Dot & Key exemplified the role of packaging in brand storytelling. An advent calendar inspired by an AI-generated image of a dresser became a rigid box with 12 drawers, ribbon pulls, and a magnetic outer lock. EVA foam secured the products, while the brand logo doubled as the locking mechanism. The box transformed packaging into a narrative, making the unboxing a journey.

The same brand also created a birthday box

with a functional mirror, three drawers, and decorative elements. A strawberry-shaped PR box used silver foiling, spot gloss UV, and EVA foam cavities, along with a pocket for a personalised note. These playful and memorable designs demonstrated how packaging can effectively embody brand values and foster emotional connections.

Storytelling through rigid boxes is about more than visuals. It is about structure, sequence, and surprise. By guiding consumers through a multi-step unboxing, converters are helping brands build stronger and more enduring relationships with their audience.

#### High-volume and sustainable production

Large runs demonstrated that rigid box creativity is not confined to boutique projects. Haldiram's gourmet cookie box used a book-shaped structure with magnetic closures, produced semi-automatically for scale. It combined digital printing with efficient two-lane rigid box making, showing how converters are blending craftsmanship with industrial productivity.

A handloom gifting pack combined multiple items, from textiles to perfumes, in a lid-and-tray structure that balanced strength with luxury. It reimaged traditional gifting in a modern, premium form. Zara Kids' house-shaped storage box pushed the sustainability agenda further. Made from

non-toxic inks, organic cotton wraps, and sustainable materials, it met strict European export standards. With multiple drawers and ribbon pulls, it doubled as storage and play.

These examples confirmed that rigid boxes can meet high-volume demands while still delivering premium cues. They also showed that sustainability is not a constraint but an opportunity, opening new markets and strengthening brand positioning.

#### Conclusion

Rigid box packaging at the Awards revealed an industry at the crossroads of creativity, engineering, and sustainability. Projects ranged from small-batch influencer kits to high-volume consumer runs, from functional watch boxes to elaborate festival installations. Each one demonstrated that rigid boxes are no longer simply about strength and durability. They are now central to brand storytelling, designed to delight, engage, and endure.

The lesson from this year's entries is clear. Rigid boxes have become symbols of ambition. They are keepsakes, marketing tools, and brand ambassadors. For converters, the challenge is to continue balancing complexity with efficiency, and artistry with sustainability, ensuring that every rigid box produced is as much a narrative device as it is a protective shell. ■



## Trends in print on demand:

# PRINTING BEYOND THE PAPER

# A

review of the submissions for the Book Printer of the Year (POD) Award during the 15th edition of PrintWeek Awards reveals how in the recent years, POD has emerged as a distinct category within digital printing.

### Short runs

What was interesting was how three different types of technology were deployed—electrophotographic toner-based presses, presses that run on liquid inks and finally the inkjet presses, to produce the samples submitted for the Awards.

One trend that emerged was regarding run lengths. The average seems to be between 300 and 500 copies. However, there are also instances of larger runs, reaching up to 3,000-3,500 copies, and in the true sense of POD, single-digit runs between 1 and 10 copies.

The other trend is, the huge boom in books for coaching classes. The numbers are staggering. The average copies are 3,000 to 5,000, and these are usually produced on a digital web press. Most of the tutorial textbooks were in four-colour and in some instances in two-colour.

This brings the question. What is the key distinction between POD (Print on Demand)

and short-run printing, and what are the typical run lengths for each? Well, the key distinction is in their purpose and typical run lengths. POD (Print on Demand) literally means printing one copy. It's about fulfilling orders for a single unit at a time. Whereas short-run printing refers to small, purposeful batches of books. It typically ranges from 50 to 1,000 copies, where offset printing would be inefficient.

This brings the debate to costs. The factors contributing to the higher per-copy cost of digital printing compared to offset are primarily the direct production costs. However, one trend we detected was that this gap is expected to shrink by considering the hidden costs associated with offset printing, such as warehousing, pulping of unsold books, and overstock. Digital printing eliminates these hidden costs. Additionally, as the volumes of digital printing scale up and the prices of consumables ease, the ▶

per-copy cost gap is expected to further diminish.

### Quality concerns

Plus, all kinds of paper grades come into play because of the types of technology. So many jobs that could not be done or would not be done are possible due to digital printing. Having said that, one must have a checklist. And publishers must ask printers (grain check, adhesive type, cover stock/lamination, shopfloor RH, pagination/spine width pre-verification). It's one to ensure you play by the rules in digital print's "playground."

Having said that, there were two observations by the jurors. These were: The paper feels thinner, and the reader can see the text from the other side of the page. This is addressed by using digital-optimised opaque book papers and controlling ink laydown, especially in inkjet printing. Observation two by the jurors was: loose spine due to lack of proper adhesion, leading to the book falling apart.

When PrintWeek spoke to the adhesive players, they said, "The solutions involve proper spine preparation, choosing the right glue (EVA for novels/textbooks, PO for better flow and closer performance to PUR, and PUR as the gold standard for coated/synthetic stocks and wrong grain direction), and running the adhesive at the correct temperature."

Previously uncommon or not done embellishments that are now commonly seen in digital printing include: gloss laminations; creating



**What is the key distinction between POD (Print on Demand) and short-run printing, and what are the typical run lengths for each?**

a head and tail band plus creation of square backs; spot UV or foiling on all pages; debossing and embossing.

### Standout samples

A few print jobs that caught my eye were a book with 50 types of personalisation and customisation on each page. Absolutely fab. Obviously, it calls for extremely high-quality pasting and grasp of paper engineering. Then there was a puzzle cart with a pocket slipcase. Sturdy and classy plus easy-to-use. Then there was a premium school memoir rendered with about six types of paper grades plus multiple types of textures and effects. Innumerable examples of books wherein the book printer combined "art paper printing as well as uncoated paper printing" within the same book.

One of our favourites was the Encyclopaedia of the Music, Hindustani Classical. This was a three-volume set, very voluminous with thousands of pages. 203 copies, with everything produced on a Canon press. Obviously, the cover is four-colour and you have a slip case which holds the three volumes together and so there's foiling, embossing, varnishing on the jacket. The text also covers ideal cover paper/grammage (220-300 gsm mill-coated boards) and the relationship between book size and cover grammage. The music encyclopaedia published by Oxford University Press delves into the advantages of modern adhesives (PO, PUR) in perfect binding for digital printing, often making thread-sewing less viable. This is what makes the three volumes so special. And guarantees music to the print ears. And what it is one would want to see from the POD category. High art and the real world coming together to find a solution. ■





Trends in Specialty and Trade books

# DRIVEN BY PRECISE EXECUTION AND COORDINATION

**A** review of the submissions for the Book Printer of the Year (Speciality and Trade) Award during the 15th edition of PrintWeek Awards reveals that the segment is witnessing remarkable advancements, characterised by a fusion of intricate craftsmanship, sophisticated technology, and stringent quality control.

### Post-press complexity

A significant trend was the emphasis on multi-stage binding complexity. Printers are excelling at coordinating various post-press operations, including precise signature gathering, trimming, and diverse binding methods like hardbound with smooth rounded edges and lay-flat binding. The ability to seamlessly integrate elements, such as head and tail bands, ribbons, and specialised case coverings, often with unconventional approaches, highlights a mastery of this area. The remarkable consistency in achieving lay-flat binding without issues, which was once a huge challenge, is a testament to this progress.

### Material handling

Advanced material handling and inventory coordination are also pivotal. Book print firms are adeptly managing a wide array of substrates, from various paper grades (acid-free, wood-free art paper, 40-gsm text paper) to thick boards, fabrics, and even custom-coated materials like PLC merged with canvas. The meticulous control over ink absorption, especially on thin papers, to prevent show-through and smudging, underscores the precision required in handling these diverse materials.

### Production disciplines

Stringent production disciplines and synchronisation across design, die-making, and production teams are evident. This is particularly crucial for jobs requiring perfect alignment, such as window punching on slipcases that must precisely match cover designs, or maintaining consistent quality across multiple print runs and high quantities. The rise of digital printing integration for post-press embellishments, like Scodix-type machines for UV and gold foil on digitally printed books, also signifies a strategic adoption of technology to enhance visual and tactile appeal.

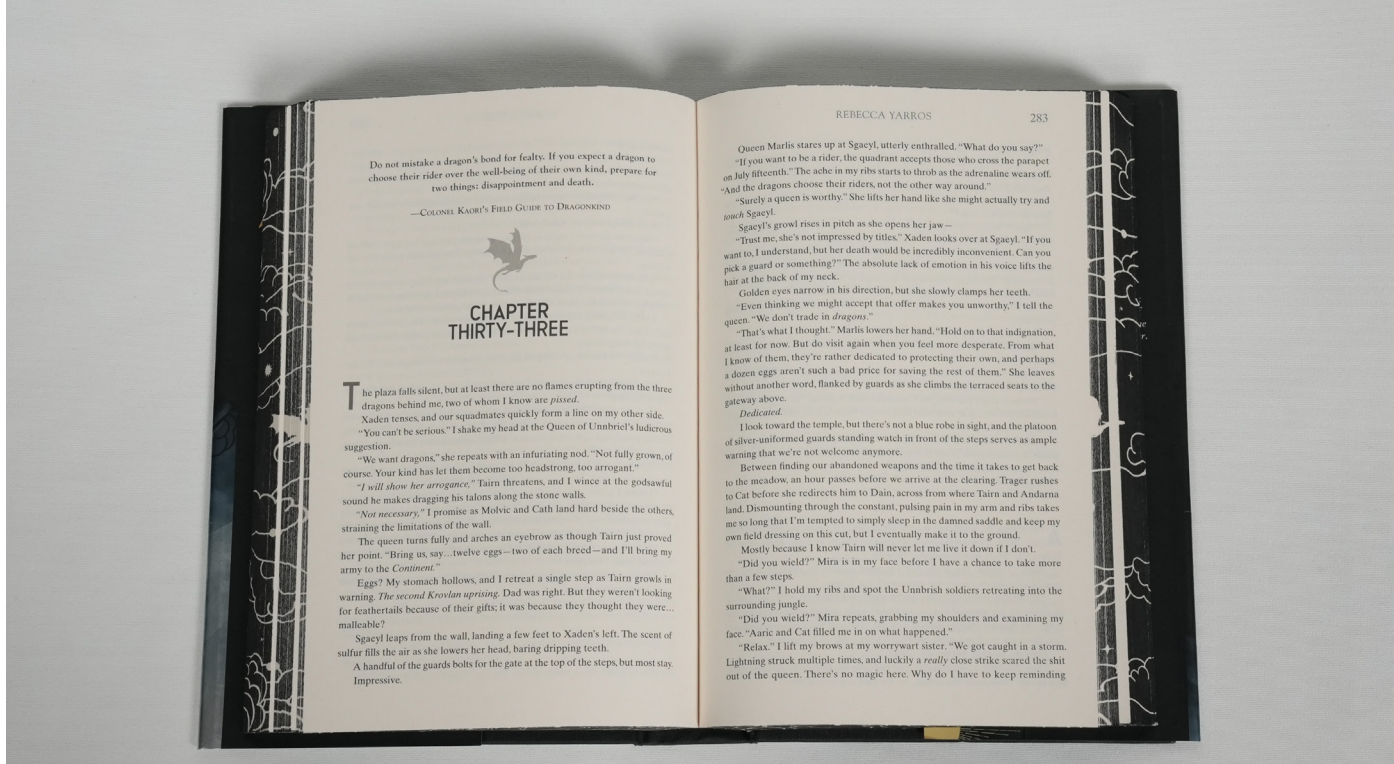
### Zero-defect production

The commitment to zero-defect production is a common thread, with rigorous quality control checkpoints throughout the factory floor. This attention to detail extends to managing environmental conditions, eliminating rejection rates, and meticulous pre-flighting. The ability to maintain consistency in ink density and account for paper batch variations, especially with Indian paper grades, demonstrates a deep technical expertise.

As jurors mentioned, achieving accurate alignment for features like window punching on slipcases with cover designs, where even a slight discrepancy can cause problems. But the work from India has gone up a notch in 2025. Likewise, book print firms are ensuring proper stacking, packing, and transportation, especially for heavy books, to prevent damage during handling. For books with a thud factor and heavy contrast, ensuring quality on specialised art ▶



Image Credit: xyz



### Standout samples

Notable examples of innovation include books with multi-colour book edges, intricate foiling (including micro-embossing and gold/silver foiling for high-impact publications), and unique tactile finishes like velvet lamination and fabric-textured covers achieved through screen printing and spot UV. The industry is also seeing a sophisticated interplay of print processes, utilising three, four, or six-colour presses, both inline and offline, for runs varying from 4,000 to over 20,000 copies.

### Children's books

The children's books samples, made for exports, showcased standard ink densities, eye-catching jackets, and text pages often in a single colour, with four-colour covers and embellishments. Lots of pop-ups and 3D fabrication, which were rendered with aplomb. There were playful kits, including a set of six books in one kit. This was designed like a carry bag book box, requiring complex fabrication and a fun vibe.

A children's puzzle book featured complex craftsmanship with layered Kappa board, die-punched layers for puzzle pieces, back-to-back pasting, hardcase binding, and rounded corners with soft foam for child safety. This demonstrated significant out-of-the-box creativity.

### Bible printing

The *Armour of God* is 1,500-page book with a 55,000 run, featuring a PU cover, 36-gsm text paper, and an intricate cover design involving a flex board, slip case, top load, four-colour printing, perfect binding with YAP, corner gilding, and debossing. In addition to the production of the book, what was mind-boggling was the herculean coordination

**Printers are excelling at coordinating various post-press operations, including precise signature gathering, trimming, and diverse binding methods like hardbound with smooth rounded edges and lay-flat binding.**

and resource management in the book factory.

A children's Bible had a smallish run of 5,000 copies but it had with over 2,000 pages, using PU cover material, 40-gsm text, and heat burnishing on the PU, along with screen printing for added effect. Simply divine!


### Hardcover books

One standout sample was a collection of 24 titles, 20,000 copies spread across six categories, emphasising accurate case work and precision. A collector's item.

A graphics book highlighted the printer's ability to provide solutions, resulting in the award of an entire series. It combined multiple paper types and special covering material, section-sewn hard-case binding with a square back on 3-mm board.

### Edge-gilding

Another trend that jurors noticed was the sprayed edges of hardcover trade books, where the edges are sprayed with a colour corresponding to the colour used on the cover. Earlier, edge-gilding was exclusively the purview of religious titles, to make them stand out. Today, however, trade books, especially in the popular fantasy genre, are experimenting with new ways to make the humble book an object of desire, especially with sprayed edges.

In essence, the specialty and trade book production sector is characterised by an unwavering pursuit of perfection, driven by an exceptional ability to manage complex technical processes, diverse materials, and tight deadlines, resulting in publications that are not only visually stunning but also enduring in their quality and craftsmanship. 

# TRENDS AT A GLANCE

Post-press embellishments which were highlighted by the jurors as interesting

- 01 Matte finish, matte lamination
- 02 Spot UV and glitter UV and full UV
- 03 Lay-flat binding
- 04 Multicolour book edges
- 05 Elastic plus pen-holder
- 06 Gazetted pocket
- 07 UV and gold foil (with a Scodix)
- 08 Multicolour book edges
- 09 Velvet lamination
- 10 Die-punched pages (unevenly, tied with a holy thread)
- 11 Fabric texture given with screen printing and spot UV
- 12 Gold-silver foiling
- 13 Intricate foiling
- 14 Graining effect
- 15 Foiling on PLC merged with Canvas
- 16 Slip cases designed to give a niche effect to make the binding stand out
- 17 Two hits of white opaque and regular CMYK UV ink (six-colour printing on foil paper for a complete surface foiling effect)
- 18 ORAP (to protect the book after palletisation during handling)





# DIGITAL PRINT

A transformation in packaging  
and much more

**A** review of the submissions for the Digital Printer of the Award during the 15th edition of PrintWeek Awards reveals how digital printers is now being deployed with extraordinary fineness in all segments of printing, from books to labels, plus, specialised commercial jobs like photo albums and fine art printing





### Advantage digital

The samples highlighted how digital print, when executed with precision, is emerging as a viable alternative to traditional offset and gravure, especially for complex and short-run jobs. One of the advancements caught my eye — this was a 3D rubberised matte embossing on polycarbonate for stickers for cricket bats.

In addition to the usual suspects (real estate brochures and premium invitations), one of the striking developments of was the ability of digital print to create a tactile, woody feel on standard medium-density fibreboard (MDF), providing a cost-effective and locally sourced

alternative to imported materials for super brands.

Similarly, the use of FBB whiteboard to achieve exceptional tactile affects showcases the creative possibilities now available. The versatility of digital print was also evident in its application for children's posters, where vintage looks and 3D depth was achieved.

Beyond visual aesthetics, digital UV printing on fabric opened new avenues for brands, particularly in the jewellery and luxury retail brands plus sports brands. This facilitated nationwide campaigns (one lakh square feet minimum).

### Short-run packaging

Digital print has also empowered B2B and local indigenous brands, offering a voice through innovative packaging and label solutions — short-run jobs, like custom pouches for boutique companies. And so, lots of multilayer substrate structures, cartons and pouches, plus exemplary quality and quick turnaround times. The integration of smart software guarantees highly personalised packaging, even for small runs, reducing waste and simplifying the production process.

Innovative usage included menu cards in dimly lit bars, where screen printing combined with digital techniques illuminated the text, and the creation of extraordinary labels with heavy matte and raised spot UV finishes for small quantity tube manufacturers. Digital embellishment produced stunning effects for body mist brands, with precise foiling and embossing that enhance visual allure.

### Standout samples

The power of variable data printing (VDP) was evident in projects for dairy and alcobev brands. For a dairy client, VDP enabled the customisation of jar sleeves for social media influencers, with names, photos, and unique background templates. This complex process, involving data hygiene and custom artwork, was completed in a mere three days, showcasing the speed and efficiency of digital print.

Similarly, VDP was used for a collector's item alcobev canister, a 12,000-label job with an A-List artist that debuted at Cannes. This project required precise colour matching, multiple finishes, and intricate line work, demonstrating the high-stakes capabilities of digital printing for brand aesthetics. ■

# LABEL PRINTER OF THE YEAR

## Labels push boundaries with innovative designs and tactile finishes

Labels have always been central to packaging, but the 2025 Awards made it clear that their role has changed. Where once they were seen as the space for logos, copy and compliance information, today they are an active part of the consumer experience. The labels are increasingly designed to be touched, peeled, scratched, and interacted with, long before a cap is twisted or a lid lifted.

Converters showcased a wide range of approaches, from intricate embellishments on short runs to scaled-up luxury labels for global beverage brands. The ingenuity on display reflected not just technical expertise but also an understanding of how labels can convey a brand's narrative into the hands of the consumer.

The entries in the label category during the PrintWeek Awards showcased an extraordinary evolution in label design and printing, with converters demonstrating remarkable technical prowess and a keen eye for aesthetic and sensory experiences. The entries pointed to a market where design, engineering and material science converge, with converters balancing visual drama, tactility, scale and sustainability.

### Crafting visual drama

The Awards showed how far labels have come as visual statements. Kashmir Honey's "Flying

**These projects showed that scaling innovation is no longer optional. Converters are expected to deliver complexity in volume, ensuring luxury effects are not confined to limited runs but can reach industrial levels without compromise**



Butterfly Wings" label captured imaginations by turning a small, circular surface into a stage for movement. Using thin fibres and specially designed flexo plates, the converter created the illusion of wings lifting off the bottle. Low-pressure creasing at the base provided the back pressure required to hold the form, producing an enormous wow factor for a label of such small size.

A fragrance brand's entry offered a different approach to spectacle. Executed through roll-to-roll screen printing that combined conventional screen and letterpress, the label created raised ink surfaces and layered coatings. The result was a unique tactile depth that gave consumers a sensory connection even before the bottle was opened.

Palma Power Premium's whisky label turned standard paper into something altogether more luxurious. Produced as a wraparound, it simulated the feel of leather grain on a plain substrate. The label impressed customers so much that it helped the blended whisky expand its reach to more than 70 countries, confirming that tactile design can influence global acceptance.

Other projects stood out for their narrative character. Wise Monkey's rum label deliberately embraced a rustic aesthetic, emphasising craft and authenticity. Meso's Char range highlighted its lavender hero product through the use of ▶

silver foil, metallic purple overlays, screen white for text, and raised UV on floral motifs. The interplay of finishes made the lavender cues both visual and tactile, producing a sensory-rich label that embodied the essence of the product.

These examples reinforced a broader theme. Labels are becoming storytellers, translating brand identity into visual drama and physical presence on the shelf.

### Engaging the senses

If visual drama caught the eye, tactile design engaged the hand. A nutrition brand label demonstrated how far converters are pushing multi-sensory effects by using five distinct finishing processes: velvet lamination, soft-touch matte coating, holographic foiling, embossed UV, and additional layering for depth. Each process added dimension and tactility, creating a label that was felt as much as it was seen.

For Meso, another execution on a PP substrate showcased a delicate interplay of matte and gloss varnishes. Gold foil highlights and raised UV effects added a tactile dimension, achieving clarity even on transparent stock. This was not just about finishing but about reinforcing the brand's premium cues in a subtle yet effective way.

Pilgrim India's Vitamin C toner label underscored the importance of colour and accuracy. Using a nine-colour print process, the converter achieved tonal richness and precision. Bright colours, carefully registered foil, and a soft-touch varnish created a smooth, velvety feel, adding a tactile signal of product quality.

Premium skincare tubes for the Russian market went further still. Labels incorporated holographic foil accents, embossing, rough textures, and a mix of matte and gloss. Inline UV curing ensured tight registration across these multiple processes. The result was packaging that combined international aesthetic standards with technical precision.

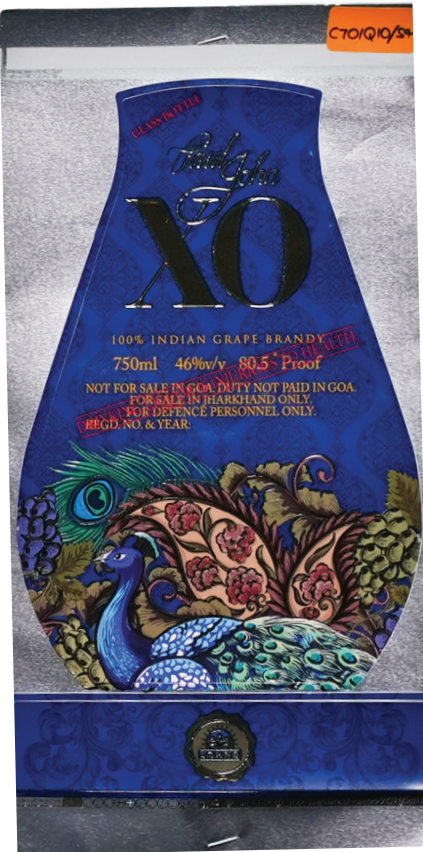
A morning face scrub label echoed the product inside through a "sand touch" coating, further enhanced by precision application of velvet varnish, gloss UV and aqua varnish within a single artwork. Yardley's fragrance body mist label, in turn, combined regal gold foils with gloss UV over a deep purple base. Perfect foil registration against such a challenging background was a technical achievement that elevated the floral artistry.

The Skin Story's elastic hemp label added interactivity. A two-layer peel-back design doubled the communication space, while a scratch-silver coating introduced both play and security. The label combined matte, gloss UV, aqua varnish, and release varnish to create an experience that was both engaging and functional.

### Scaling complexity

Innovation on a boutique scale is a notable achievement. Replicating it across long runs is another. This year's entries proved that converters can scale intricate designs into industrial production without losing precision.

Projects for distillery brands illustrated this well. Runs extended up to 4,000 metres, with complex designs involving textured varnishes, thermal matte



lamination, gold foiling and graining textures. Some projects scaled further to 1,50,000 labels, each carrying intricate post-press effects yet maintaining consistency across the batch. Such complexity in high volumes demanded not only print precision but also repeatability in finishing.

Shrink sleeves added another layer of technical challenge. A coffee liqueur label had to maintain registration across a distorted bottle shape. The converter integrated hot foil stamping and tactile screen effects on logos, achieving clarity despite shrinkage. A rum brand addressed the same challenge through copper-coloured foils and tactile varnishes on custom die-cut sleeves, creating both premium presence and technical sophistication.

These projects showed that scaling innovation is no longer optional. Converters are expected to deliver complexity in volume, ensuring luxury effects are not confined to limited runs but can reach industrial levels without compromise.

### Luxury and premium cues

Premium cues remained central to many award-winning entries. Piccadilly's single malt whisky label used Fedrigoni paper as the base for multi-layered 3D and micro-embossed foiling. Combined with high-density inks, the label achieved a textured and layered appearance that communicated sophistication at a glance.

Pernod Ricard's labels presented an even ▶

more difficult challenge. Produced on BOPP clear substrate with a PET liner, the project combined intricate foiling, metallic inks and textured coatings. Achieving precise registration on such a difficult substrate required not only printing skill but also an intimate knowledge of how foils and coatings behave under pressure.

Eden Whisky's wraparound label combined multicolour foiling, tactile varnish and embossing on a custom die-cut. This label demonstrated how multiple processes can be integrated without crowding the surface, creating an impactful finish that helped the whisky stand out in a crowded category.

A distillery brand's aluminium embossed paper label offered another highlight: this 10-colour production integrated precision screen printing, fine gold foiling and intricate back panelling. Flawless registration across all effects set a benchmark for execution on luxury substrates.

These examples confirmed that luxury is increasingly defined not by one or two embellishments but by the careful layering of multiple techniques.

### Sustainability and innovation

Sustainability was a strong thread throughout the category. One of the standout examples came from a dairy brand that produced a one-million-label run on 60-micron LDPE film. Food-grade and 100% recyclable, the labels delivered both durability and flexibility for milk pouches while ensuring accurate reproduction of sharp illustrations. The project demonstrated that sustainability can be scaled without compromising quality.

Beauty brands also demonstrated that eco-conscious packaging could remain premium. One project used PP clear-on-clear stock with screen embossing to elevate the appearance of legal text, ensuring compliance while maintaining a sophisticated look. The design not only improved shelf life but also reduced the reliance on heavier substrates.

Converters showed that sustainability does not need to be seen as a limitation. Instead, it can become another driver of innovation, inspiring new ways to achieve luxury cues using recyclable or lightweight materials.

### Redefining brand identities

Some of the strongest entries were those that redefined brand identity through labels. Marico's Parachute capsule, produced on 7,000 running metres of PP silver stock, created depth through layers of flexo and screen whites. Holographic effects made the



capsule glimmer, while a fine gold lacquer delivered the brilliance of three foils in one. The coconut icon was left elegantly minimal, balancing innovation with tradition.

Tata Trent's fragrance oil label, also produced in a 7,000-metre run, achieved translucency through clear-on-clear stock. Gold foiling and gloss varnish added sophistication, while tactile finishes gave the surface an inviting feel. RND Beauty Concept achieved a perfect no-label look on 3,500 metres of clear stock, using screen embossing to transform legal text into a subtle design element.

John Distillery's spirit label was a 2,500-metre, 10-colour inline production on aluminium-embossed paper. Cold foiling, screen embossing, gloss and matte varnishes combined to create a jewel-like finish that reinforced the brand's premium identity.

Whirlpool's labels highlighted technical mastery. Produced on 180-micron PET, they featured reverse printing that combined CMYK, Pantone spot colours, opaque white and silver foil. Offline punching and the use of specially formulated inks and adhesives ensured flawless registration, delivering high-definition results.

Arabian Nights, a women's personal care brand, leveraged silver metallised self-adhesive to create metallic brilliance. Careful control of white opacity and ink density ensured consistency, while precise registration ensured a high-quality finish. A high-end body oil label accentuated Portuguese text with luxurious gold foil, applied with perfect pressure and complemented by matte varnish. The contrast between reflective and matte finishes elevated the sense of luxury.

Together, these projects showed that labels are now being used to refresh icons, to create transparency, and to reinforce premium cues through technical ingenuity. They have become active contributors to brand storytelling and identity.

### Conclusion

The label category at the Awards revealed a sector in transformation. Converters are combining design, tactility, and sustainability to produce labels that are as memorable as the products they contain. The projects ranged from fluttering

butterfly wings to recyclable milk pouches, from interactive hemp labels to multi-foil whisky wraps. What tied them together was ambition.

Labels today are no longer passive identifiers. They are storytelling surfaces, tactile experiences, and strategic brand assets. The converters who succeed are those who can scale complexity, embed sustainability and integrate design with precision. This year's entries confirmed that India's label industry is not just keeping pace with global innovation but is contributing to its future direction. ■

# FOOD AND BEVERAGE (F&B)

## Converters redefine packaging excellence

**T**he Packaging Converter of the Year (F&B) category in this year's PrintWeek Awards revealed how converters blended structure, embellishment and storytelling to elevate everyday packs into expressive brand experiences

Food and beverage packaging has grown into one of the most expressive and technically demanding arenas for converters across India. This year's Packaging Converter of the Year (F&B) category in the PrintWeek Awards brought forward an astonishing variety of substrates, formats, laminates, embellishments and structural concepts.

Each entry offered its own narrative of material intelligence, visual nuance and functional performance. The work ranged from ten thousand carton runs and complex cavity boxes to ten-kilometre gravure laminates and shaped rigid structures. There were quad seal pouches, aroma locked coffee packs, soft touch chocolate cartons, three-piece tea boxes, PP labels with bronze foil, mirror coat peanut labels and rocket shaped stand up pouches that doubled as whimsical retail displays.

Across every mini case, converters demonstrated the delicate art of balancing shelf presence with technical accuracy. Food and beverage packaging demands much more than visual charm. It must protect, preserve, persuade and perform. It must hold moisture at bay, keep flavours intact, resist humidity, withstand transport stress and open with grace. Yet it must also communicate freshness, purity, indulgence or tradition in a single glance.

### Substrates shape identity

Substrates carried both functional weight and aesthetic intention across the food and beverage entries. They anchored freshness, enabled clarity and offered the tactile foundations for expressive design.

The dry fruits gifting box, produced in 10,000 cartons, used a stiff virgin board that held its form even under the weight of multiple cavity divisions. This board offered excellent surface smoothness for gold foil and textured varnish, while retaining rigidity for the clear window that revealed selected nuts. Its stability allowed the partitions to sit snugly against the walls, preventing friction and scuffing.

The mixed dry fruit pack, produced in five thousand cartons, reflected a similar approach with slightly softer board but with a high brightness finish. This helped the gold accents appear cleaner and more controlled. The substrate maintained sharp creases and ensured that the lid opened with crisp lines, supporting the gifting intent of the brand.

Tea cartons in the wellness, green and masala categories built their presence on coated boards that complemented botanical artwork. These substrates allowed for both matte herbal tones and foiling accents, making them ideal for textured leaf motifs, embossing and copper ▶



highlights. The boards did not crack at folds and gave converters room to balance detailed illustrations with structural accuracy.

The Nick Lemon tea cake carton, produced in five thousand cartons, used a board designed to withstand oil migration from baked goods. This prevented dull patches and kept the artwork clean. The substrate supported a front window and embossing on the brand crest without warping.

Whisky cartons, such as the Vedant Pass Food project in thirteen thousand cartons, leaned on stiff high bulk board that could hold deep embossing and metallic gradients. The substrate ensured that glued edges remained tight despite the structural weight of the pack.

Snack cartons, often used for fried nibblers or crisp based products, relied on boards with moisture resistant coatings. This reduced the risk of panels softening in humid environments and helped maintain shelf stability. The use of metallic hints in these substrates added brightness and drew attention to flavour cues.

Coffee cartons used virgin boards that absorbed matte varnish evenly. These were chosen to give the pack an earthy, roasted feel. The board also provided enough rigidity for tucked in flaps, ensuring sharp corners and tidy folds.

The substrate stories expanded further in flexible laminates. Multi-layer structures using PET, MetPET, foil and PE allowed gravure converters to deliver barrier performance, aroma protection and heat seal strength. These laminates kept spice blends fresh, protected ready to eat curries and maintained colour intensity in high resolution food photography.

Across all mini cases, substrates shaped the emotional and functional tone of each pack. Whether stiff or flexible, coated or textured, they served as foundational choices that defined packaging identity.

with digital techniques illuminated the text, and the creation of extraordinary labels with heavy matte and raised spot UV finishes for small quantity tube manufacturers. Digital embellishment produced stunning effects for body mist brands, with precise foiling and embossing that enhance visual allure.

#### Structures create experience

Structural insight turned everyday food packs into purposeful objects. The entries revealed smart engineering across cartons, pouches and rigid formats.

The honey carton with a tear away front panel stood out for its intuitive reveal. The structure opened cleanly to showcase the bottle inside without damaging the frame of the pack. Multiple crease densities were tested to ensure that the tearing motion was smooth and predictable. This design added a moment of theatre to a simple edible product.

Three-piece cartons also impressed with their precision. These were engineered to maintain perfect alignment across panels. Any ▶





shift in the middle piece would disrupt the artwork flow or weaken the side wall. Converters ensured flawless folding by synchronising crease positions with artwork registration. The outcome was a pack with visual continuity and strong mechanical hold.

Shaped carton formats delivered some of the most complex structures. A bottle shaped mono carton required dual locking points to prevent bulging during transit. The silhouette was cut with high accuracy so that the artwork hugged the contours without distortions. This structure became both a protective shell and a marketing cue.

Triangular packs and pillow packs brought soft geometry into the category. Their curves needed high glue precision and careful compression at the edges. These formats offered visual distinctiveness while retaining stacking efficiency for retail shelves.

Partitioned dry fruit boxes added mini architecture inside cartons. Their cavity divisions held almonds, cashews and raisins in their own spaces. The inner partitions needed to be cut at exact tolerances to avoid buckling. The outer lid used magnetic closure in some variants, ensuring a satisfying opening motion that suited festive gifting.

Rigid chocolate boxes presented similarly intricate structures. The Alders Den diamond shaped chocolate box, produced in two thousand pieces, demonstrated how geometric silhouettes can elevate premium confectionery. The slanted lid chocolate box from OH Designs, produced in one thousand pieces, aligned its angled panel with interior cavity trays. These were artisanal structures that demanded a

balance between form and assembly practicality.

Flexible packaging added its own structural nuance. Zipper pouches for dry fruits offered reclosability without compromising seal integrity. Spouted pouches for beverages and syrups provided controlled pouring. Quad seal pouches for namkeen stood upright even when partially empty. Retort grade pouches handled high heat without delaminating.

One of the most playful structures was the rocket shaped stand up pouch, produced in 1,500 metres. Its silhouette demanded precision in die cutting and alignment. The pouch stood tall and became a shelf conversation piece, merging structure with brand personality.

#### Structures create experience

Embellishments provided the sensory language that connected consumers with flavour, quality and indulgence. Throughout the entries, converters used foils, embossing, textured UV and matte gloss interplay to build emotional resonance.

Chocolate cartons leaned heavily on soft touch coatings. These finishes made the cartons feel velvety and luxurious, turning the unboxing moment into a tactile pleasure. Multi-level embossing added further richness, lifting cacao illustrations from the surface. Many of these cartons used foil with restraint, adding shimmer only where needed.

Spice boxes embraced expressive embellishment. Gold foils highlighted intricate Indian motifs. Embossing added depth to brand crests. Drip off textures brought matte and gloss elements into contrast, helping ingredients

stand out without overwhelming the artwork.

Tea packs delivered spiritual and wellness driven embellishment stories. Embossed mandalas, leaf motifs, copper foils and textured UV created delicate patterns that matched the calming nature of the product. The interplay of matte greens and glossy botanical elements offered visual harmony.

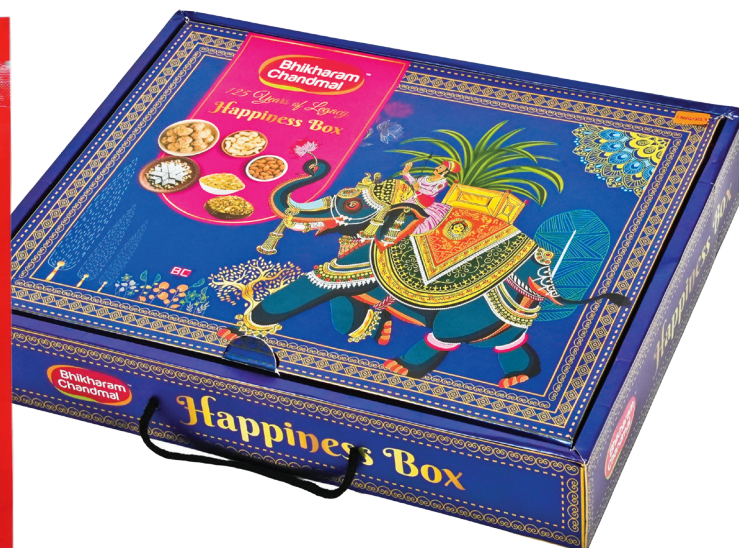
Coffee cartons used subtle foiling to emphasise origin stories and roasted profiles. Thin metallic lines outlined brandmarks, while matte varnish subdued glare and added warmth. Embossing on crests gave a sophisticated but unobtrusive highlight.

Snacking categories deployed high energy embellishments. Metallic inks conveyed crunch cues. Gloss UV enhanced imagery of fried snacks. Some packs used spot UV to emphasise coated flavour notes.

The F&B category also included high precision label embellishments. The PP white beverage label, produced in 2,200 running metres, used special bronze foil along with bold blind embossing. The interplay of metallic glow and raised texture created premium cues for the beverage segment.

The PET white label with screen emboss and gold foil, produced in 2,300 running metres, demonstrated technical finesse. The embossing carried a tactile rhythm that aligned perfectly with printed artwork, while gold foil added a controlled shimmer.

The mirror coat peanut label, produced in 1,200 running metres, used a high gloss reflective substrate that made nuts appear vibrant and fresh. Controlled ink density ensured smooth opacity on the mirror surface. ▶



## Flexible packaging in the F&B category demonstrated extraordinary versatility. It protected product integrity, offered brand theatre and adapted to convenience driven consumption

Spout pouches and flexibles added their own embellishment signatures. Many used holographic accents, cold seal patterns, textured varnishes and gradient treatments to reflect flavour cues.

### Flexibles drive versatility

Flexible packaging presented some of the most advanced engineering and visual execution in the category. Gravure and flexo converters delivered clarity, tight register, multi-layer precision and long run stability.

Gravure spice pouches showcased sharp halftone reproduction. PET, MetPET and PE layers created a laminate strong enough to resist moisture and aroma loss. Reds, yellows and browns were balanced to reflect authenticity without oversaturation.

Ready to eat pouches used retort grade materials. These laminates handled high temperatures during sterilisation and maintained graphic integrity. Steam curls, glossy gravies and crisp ingredient details were reproduced with high fidelity.

Snack and namkeen pouches used quad seal construction for stability. Metallic surfaces brought vibrancy, while transparent windows allowed consumers to view the product. Register stability ensured tight alignment between windows and artwork.

Coffee pouches added aroma valves. Print alignment around these valves required precise

control so that artwork flowed without interruption. Matte varnish heightened the roasted feel of the design.

The Akbar Brothers coffee pouch, printed via rotogravure in a 10-km run, represented long run mastery. The converters-controlled tension, solvent evaporation and ink density to maintain clarity across the length of the laminate. Deep browns and blacks reflected the heritage of the coffee brand.

Cold seal chocolate and wafer packs appeared frequently. Printing on these areas required disciplined ink control to avoid contaminating sealing zones. These packs maintained aesthetic consistency while delivering production efficiency.

Flexo entries also made a strong appearance. The Diacan job in ten thousand running metres and the E Focus job in 12,000 running metres displayed clean tonal strength and controlled registration. Their multi-layer structures offered clarity in transparent windows and vibrancy in artwork.

Pet food appeared in the form of the Bark Out Loud pouches in 17,500 pieces. These used barrier films with strong tear resistance and bright graphics that communicated flavour and nutrition.

Flexible packaging in the F&B category demonstrated extraordinary versatility. It protected product integrity, offered brand theatre and adapted to convenience driven consumption. ■

# THE EXPANDING AMBITION OF INDIA'S FMCG CONVERTERS

**A** category shaped by craft, volume, innovation and structural intelligence. The Packaging Converter of the Year (FMCG) category in the PrintWeek Awards 2025 reflected a sector that has grown sharper, deeper and more demanding. Converters across India delivered work that ranged from short 2,000-unit batches to monthly volumes crossing 2.4 crore cartons. These entries combined embellished folding cartons, tactile flexibles, graphic labels, premium rigid boxes and aluminium cans under a single umbrella of consistency and craftsmanship.

The category revealed a clear shift. FMCG now sits at the intersection of sensory design and production engineering. Every surface, crease, foil, Pantone match and structural detail contributes to how a brand is experienced.

Jobs ran on 300- to 350-gsm boards, silver PET laminates, matte micro textures, holographic recombination, LED UV systems and high-resolution gravure. Embellishments were treated with surgical precision. Structures were re-engineered for speed. Substrates carried sustainability stories. Flexibles learned to mimic textures. And design grew bolder, denser and more culturally layered.

**The FMCG category reads like a map of how India's converters produce beauty, wellness, home care, food, fragrance, snack, gifting and spiritual packaging at scale with unmistakable finesse**

## Substrates shape FMCG identity

A defining trend in this year's FMCG work was how confidently converters used substrates as active design elements. Most cartons in the 5,000 to 25,000 bracket relied on 300- to 350-gsm boards because they handle pearlescent coatings, raised UV, CMYK-plus-special-inks, metallic sheens and inside UV varnish with predictable stability. Substrates are no longer passive platforms. They influence both visual

expression and structural strength.

The 25,000 baby care cartons, printed on a Heidelberg CD 102 press, captured this idea perfectly. The 350-gsm board carried CMYK, a special green, a pearlescent metallic surface, raised UV on text and imagery and UV varnish on the inside panels. The result was a carefully weighted premium feel.

Larger runs displayed equal discipline. A 4,00,000-unit luxe carton used a 300-gsm CBB jacket paired with a 250 gsm FBB base and cold foiling to deliver controlled brilliance. The 9,00,000-unit Luxe Cosy Luxury job used an FBB surface robust enough to hold a three-dimensional embossed foil effect across the entire batch without visible drift.

A significant material trend was the adoption of non-traditional sustainable substrates. The 50,000-unit Britannia millet agro board carton illustrated how brands now lean into custom textured eco papers that elevate natural aesthetics. The board offered gentle texture without disrupting ink laydown, producing a clean and earthy finish. Converters used this as proof that eco materials are compatible with premium cues.

Another trend was the re-emergence of craft corrugation as a design-first outer layer for select FMCG categories. This approach is tied to the belief that *jo dikhta hai woh bikta hai*, and reflects the way converters use tactile fibres, ▶

## Substrates set the tone for FMCG identity. They must remain stable under pressure, accept embellishment without distortion and communicate the story a brand wants to tell.

uncoated faces and warm brown tones to attract consumers seeking authenticity.

### Embellishments define category ambition

If one trend overshadowed all others, it was embellishment. Across runs from 2,000 to 1,00,000 cartons, converters showcased heightened sensitivity to texture, foil behaviour, emboss height, varnish depth, drip-off patterns and Pantone metallic calibration. Finishing is now the signature language of FMCG brands.

The Pilgrim Rose Touch Three in One Palette demonstrated this direction. Printed in 33,000 units on silver PET lamination, it combined CMYK, Pantone shades and UV white to produce dimension. Drip-off coating created matte gloss contrast zones that guided the eye, while embossing added physical depth. Every layer was intentional.

White Diamond perfume cartons followed this multi-sensory brief with frost-textured drip-off, crisp embossing and metallic accents. Even compact jobs such as the 2,000-unit tea carton used silver PET lamination and raised textures to deliver a reflective wellness-driven aesthetic.

Pataka cartons added another layer to this trend. Their work involved colour matching, Pantone metallics, controlled gold stamping, precise punching and layout harmony. They represent the shift of everyday FMCG packs into meticulous, embellishment-driven identities.

Chocolate cartons, too, played an important role in the elegance trend. High-value chocolate packs used virgin board paired with soft touch UV varnish on the front and side panels to evoke indulgence. Soft touch is increasingly being used in FMCG not for luxury alone but to signal flavour richness or natural purity.

A key shift seen across multiple entries was how converters match every carton to the approved client sample. This discipline has become a baseline requirement, not a differentiator, and it reinforces the standards expected across runs of 5,000, 33,000 or 1,00,000 units.

### Flexibles reshape FMCG thinking

Flexible packaging has broken free from its reputation as a purely functional or cost-efficient format. The category showcased

flexibles and labels with tactile cues, ingredient mimicry, optical effects, anti-counterfeiting layers and structural intelligence.

Marico's Safola edible oil pack, produced by Jupiter Laminators, used PET, BON and white opaque PE to replace a rigid can with a flexible three litre pouch. The design incorporated a bottom gusset, a D-cut handle and a minimalistic one-piece spout. This job emphasised how structural simplicity can improve experience and reduce environmental footprint.

Urban Platter's 25,000 transparent labels illustrated the design leap in flexo work. Printed on a ten-colour press, the job used white, gold foil, one Pantone, CMYK, sand-texture varnish and raised UV. The sand-texture accurately reproduced the feel of pink salt crystals, showing how flexo has evolved into a textural tool rather than a volume engine.

Shilajit packs contributed a completely different aesthetic trend. Their flexo labels used metallic matte surfaces, gold foiling and raised UV to evoke the mineral's origin story. The matte-gold contrast created an earthy and potent identity aligned with the product category.

The Rasgulla Makhana pouch added a new dimension with optical techniques. Using holographic and anti-counterfeiting treatments such as relief texture, dead colour layers, sparkle specks, gradient transitions and letter-lens effects, the pack combined security and visual delight.

The Sumanti pouch echoed these innovations with UV recombination across five panels, holographic highlights, mirror-lens effects and tactile relief features. These effects created a premium, almost jewel-like appearance.

Nestle's metallised gravure pack used PET, MetPET and PE with matte varnish to balance gloss and depth. Capital Foods' dumpling pack showcased striking halftones, appetising food photography and clarity in PET and PE gravure. These two gravure entries demonstrated how food imagery has become a trend anchored in realism and detail.

AV Me Herbals executed 1,20,000 labels with Pantones, CMYK and gold foil to create a layered stamp-like identity. Pure Play Skin ▶



Science used a 450 flexo press to apply four Pantones, solid black, heavy drip-off and raised UV for cosmetic richness.

Together, these entries revealed a trend where flexibles now borrow heavily from carton aesthetics and security formats, merging visual density with functional performance.

#### Structural innovation transforms complexity

A major movement in this category was the increasing dominance of structural engineering. FMCG converters invested in prototyping, AI-assisted ideation, crease pattern optimisation, ergonomic design and fastening systems that accelerate packing speed.

The Fasten Up UK tube pack in 1,00,000 units is the most vivid example. The carton combined dual offline coatings, matte micro texture, gloss highlights, a cold seal blister interior and a prism-embossed logo. Initially, the pack could only be assembled at 1,000 units a day. After a structural redesign influenced by AI-generated concepts, the converter created a pre-glued, auto-locking partitioned design that allowed four tubes to be inserted effortlessly. Packing speeds rose to between 8,000 and 10,000 units per day.

Flaunt Your Ink's 12,000-unit tattoo aftercare packaging was printed on a Heidelberg press. The process used a specialised laminate with a refined tactile profile and reduced thickness. Despite being a five-SKU job, registration accuracy remained consistent. So, these things have now become a kind of de facto norm but what made this particular carton stand out was distinctive multi-layered finished

process. Each carton was coated with a specialised soft touch laminate using a wet lamination technique and an unconventional yet superior alternative to the widely used thermal process and the film sourced from an industry leading lamination innovator which basically offered a finer tactile texture which reduced micron thickness.

Aluminium aerosol cans also surfaced as part of the structural trend. Fog cans, in runs of 50,000 to 1,00,000 units, used seven Pantone shades to create torn-paper effects that demanded absolute wet-on-wet control. Wild Stone's cans required eight-colour dry offset with metallic hints achieved through seven Pantone shades. These aluminium formats reflected how FMCG structure is broadening beyond cartons and flexibles.

High-volume work embodied the same design-engineering duality. The FSS Valley HLP job delivered 2.4-crore units per month with tight shade consistency, while the Cavendish Gold Leaf project produced 5,50,000 hologram-protected cartons with crisp registration.

#### Design leadership redefines FMCG

Design within FMCG has become bold, expressive and culturally aware. Packs have grown into storytelling tools that shape consumer perception long before a product is used.

The millet board carton for Britannia employed simple textures and natural tones to communicate authenticity. Agarbatti packs used leaf imagery, embossing, debossing,

foil, knurling, spot UV and thermal matte lamination to merge spirituality with modern print craft. These examples showed that cultural idioms are being amplified through premium visual languages.

Beauty and fragrance packs illustrated visual density and emotional cues. Perfume cartons paired embossed metallics, soft touch UV and layered compositions to create mood and allure. Chocolate cartons deployed soft touch UV to convey indulgence and warmth. Rigid gifting boxes used window displays, layered cavities, stitched ribbons and textured laminates to elevate their presence.

The 1,000-unit skincare advent calendar embodied this trend. The hand-built piece featured twelve compartments, magnetic cupboards, eight drawers, wooden inserts, woven ribbons and a functioning mirror. The precision of its keyline indicated how FMCG packaging now competes with luxury gifting.

Snack packaging pushed visual boldness further. Irregular shaped snack cartons printed in seven colours with LED UV curing created dynamic silhouettes and energetic graphics aimed at younger audiences.

Labels and flexibles also expanded into sophisticated optical zones. Work across 25,000 to 1,20,000 units featured Fresnel lens films, holographic recombination across five panels, sparkle treatments, raised UV, colour techniques and shimmer textures. These innovations show how FMCG packaging now combines aesthetics, protection and brand signalling within a single frame. ■



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The Book of Trends is shaped from an exhaustive study of more than 1,000 print samples submitted by over hundred companies for the PrintWeek Awards 2025. The PrintWeek editorial team spent many hours deciphering, and decoding every detail, distilling the year's most telling shifts in craft, technology and application. The Book of Trends is a report card of our industry.

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