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Packaging: The underrated performance and value driver

At leading consumer companies, packaging decisions enable margin and revenue gains through improved customer experience and operational excellence. Five approaches should be on the C-suite's agenda.

by Dave Fedewa, Jennifer Spaulding Schmidt, and Scott Woodruff

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On YouTube, views of videos with "unboxing" in the title surpassed 25 billion in 2024,[1] and companies have responded to all that interest by creating beautiful unboxing experiences. Yet plenty of untapped potential remains wrapped up in packaging, especially for organizations that look beyond those few moments and strive to generate consumer delight and operational optimization across the entire value chain.

Does your organization look at packaging in siloes through a magnifying glass, or across the value chain with a panoramic lens? Consider the competing and poorly integrated packaging requirements in a typical online cosmetics purchase. The product arrives in a large corrugated box filled with single-use protective dunnage, all headed straight for the recycling bin. Inside, there's a high-end box that opens beautifully to display the product—and more disposable items, including nonrecyclable materials such as cellophane or foam. Finally, the consumer gets to the product's primary packaging, a plastic bottle with an ill-fitting, crack-prone lid that serves as a daily reminder of a packaging design fail.

In a tight spot

Layers of annoying packaging might not matter so much if companies weren't feeling the squeeze elsewhere. But changes in consumer behavior and the wider economic environment have left consumer goods players struggling with stagnant sales and falling margins. Across many categories, discretionary spend has been declining, with consumers leaving categories or switching to private-label offerings. Stubborn inflation continues across inputs, freight, and labor costs, with little room to pass those costs through to the retail price.

Meanwhile, consumer companies' traditional responses to tough market conditions are falling short. Innovation efforts often fail to hit targets. Design-to-value projects have concentrated on taking out cost, often compromising competitiveness and growth. Product development engines are broken, leading to low rates of product renovation and new-product introduction.

Where packaging can add more value

Even in this environment, however, some companies are thriving thanks to a growth-by-design approach to packaging. In almost any product category, smart packaging solutions can improve growth, cut costs for manufacturers and retailers, and reduce the consumption of resources (Exhibit 1).

Some companies are already applying best practice in skinny design, an approach to packaging that improves shelf holding power, restocking costs, margins, and carbon emissions through end-to-end value chain optimization. While cutting-edge companies are making bold moves, we still see much opportunity from considering additional sources of packaging value:

— *Shelf presence/brand image.* What packaging strategies could contemporize heritage brands and products to bring newness to the aisle and thereby maintain and grow the consumer base? Packaging artwork and claims are an important consideration; companies might identify the real drivers of purchase (buying factors) and call them out on the package.

— *Consumer journeys and occasions.* How can packaging delight consumers across the entire product journey? Companies can innovate offerings across the price pack architecture (PPA) to meet new consumer trends—for example, packaging that addresses the needs of the population using weight management medications.

— *Channel strategies.* Can strategic packaging changes allow the company to grow into targeted channels like dollar stores and convenience stores? How should packaging differ for online sales (where more protection in transit is needed) and on-shelf, in-store sales (which require viewing windows or antitheft options)?

[1] *YouTube Official Blog,* "Taking a peek into the world of unboxing on YouTube," YouTube, November 27, 2023.

Exhibit 1

Packaging helps companies grow top-line revenues and margin, improve customer experience, and enhance sustainability.

9 sources of packaging value

Design for sustainability
Optimizing packaging designs to achieve regulatory and competitive advantage while differentiating for customer sustainability preferences and conserving the earth's resources

Freight/containerization
Fitting more product in the same amount of space on a truck or shipping container

Channels
Fit-for-purpose packaging to allow growth into channels (eg, dot-com, dollar store, convenience store)
- Dot-com: Moving e-commerce orders to SIOC (ships in own container) to eliminate need for secondary packaging

Damage protection
Designing packaging to protect the most vulnerable parts from damage

Restocking costs
Skinny design to reduce labor needed for restocking

Shelf holding power
Fitting more product in the same amount of space on the retail store shelf (fewer stockouts = more sales)

Consumer journeys and occasions
Optimizing packaging for specific occasions and entire customer journey (consideration, purchase, unboxing, usage, etc)
- Frustration-free packaging for a positive customer experience—engaging customers with packaging that is easy to open and use
- Price pack architecture strategies and decisions

Shelf presence/brand image
Using packaging as a differentiator to make the product stand out in the "sea of sameness" on the retail shelf (including claims, shapes, distinctiveness, etc)

Returns/reshelfability
Preventing returns in the first place and, when they do happen, ensuring that packaging allows nondefective returns to be reshelved

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— *Returns and reshelvability.* How can packaging be used to prevent returns in the first place? And when a consumer does need to return an item, how can packaging allow nondefective returns to be restocked and reshelved, rather than scrapped?

— *Streamlining supply chains.* Can new value be created by considering both up- and downstream supply chains and the need for elements such as secondary packaging?

Packaging can typically drive quicker and nearer-term impact than changing the product itself.

That doesn't mean it's easy, however. Not only do companies need to build new capabilities and employ advanced tools and technologies, they also need to engage people across functions. Pulling all the levers and understanding the trade-offs and interactions between them can unlock an operationally optimized approach and a cohesive experience for consumers. Let's dive into some examples.

Boosting growth through shelf presence and brand image

In flat or slow-growing markets, packaging can help consumer goods companies grab crucial market share by penetrating new channels, boosting the on-shelf visibility of their products, and enhancing consumer experience.

Best-in-class companies link the messages and visuals on packaging to the key attributes that consumers prioritize. With so many choices available on the store shelf, consumer goods manufacturers are looking for ways to stand out. One way is to understand how packaging messages (for example, "10 percent more cheese, 75 percent less plastic") and visuals can be redesigned for maximum appeal. Today, those questions can be answered in days, not weeks or months, and in a quantitative way. For example, a well-known snack bar brand wanted to understand if it should change its package to highlight a particular ingredient and healthiness aspect—say, by printing a percentage in a large font with a graphic of the ingredient. A third-party tech-enabled platform delivered an answer in less than two weeks: 72 percent of consumers in a forced-choice exercise preferred the new package design over the old design.

On the creative side, gen AI technologies can help develop packaging innovations for a differentiated product. These tools can help teams visualize possible growth opportunities, using prompts such as "What new packaging formats can reduce costs and improve shelf presence?" or "What could a distinctive, nature-derived line of shelf-stable beverages look like?" Gen AI systems can produce animations and retail shelf simulations to help companies rapidly test new ideas with consumers.

A global beverage business was facing margin pressures due to input cost inflation and also was challenged on growth by perceived commoditization and shifting consumer preferences. It realized the need to reinvigorate the category through differentiation. Based on consumer insights, the company evolved its bottle design from a standard, undifferentiated bottle shape to a distinctive squared-off bottle with an ergonomic pinch grip that makes it easier to pour and to grab off the shelf. The resulting design increased consumer delight and growth while simultaneously reducing the cost of goods sold by 18 percent.

Rapidly optimizing new package designs with digital A/B testing

Even small changes in package design can drive big changes in market share—positive and negative. If a new package design makes it hard for consumers to find a product they've been buying for years, they might switch to a competitor. In contrast, a winning new design draws the attention of old and new consumers alike, which can increase market share.

Understanding which offerings (including visuals or artwork, claims, and price points) will be successful ultimately requires testing with the relevant consumer set. An approach called digital A/B testing allows 20 or more concepts to be assessed by hundreds of target consumers in just a few weeks. A process that would have taken six months or more has been dramatically accelerated by a combination of the following new technologies:

— *Visual/artwork rendering.* High-quality digital renderings of multiple concepts can be created extremely rapidly with help from gen AI tools.

— *Price point estimation.* Product costs can be accurately modeled in one or two days using detailed should-cost tools and databases. This lets the company add margins to reach

a corresponding accurate (financially sustainable) price point.

— *Claims.* At-scale mining of tens of thousands of product reviews and social media posts informs the development of package messaging that targets key product differentiation points and competitor weaknesses.

A digital A/B test can quickly narrow a set of 20 concepts down to the two or three with the potential to achieve the most growth or take the most share. Inserting a step like this in the packaging development process can greatly improve the hit rate of new packaging (and product) launches without adding significant time or cost.

Consumer journey: Frustration-free packaging

Packaging strongly influences a consumer's experience of a product, informing repeat purchase decisions. The first interaction a consumer has with almost any product is opening the box. If that experience is difficult and time-consuming, people tend to notice and remember. For example, bonded plastic clamshell packaging is cheap and robust, but consumers hate struggling with knives or scissors to get it open. Tricky packaging can put off potential new consumers even before a sale, thanks to the rise of reviews and the popularity of "unboxing" review videos on social media sites. Frustration-free packaging designs, by contrast, can turn an annoying chore into a positive moment.

Consumer goods companies already have access to a treasure trove of information on how consumers experience their products. A food product manufacturer pulled online social media data for one of its product lines and found it was rated worst in class in packaging compared with six competitors. Diving into consumer complaints revealed that packaging was one of the top three pain points, with comments largely centered around damage to the glass jars. This gave the company a clear fact base for starting to make packaging improvements.

Consumer journey: Price pack architecture (PPA) optimization

PPA optimization enables companies to optimize product pricing, pack sizes, and assortments, thereby improving margins, and to identify opportunity areas for growth and differentiation. This approach, which simulates elasticities, volume transferability, and P&L data for different scenarios, can be used for both fast-moving and durable consumer goods.

A food company wanted to expand market share by introducing a new packaging innovation. However, given the landscape of products already competing in its segment, a new launch risked cannibalizing existing sales. Through a PPA analysis, the company was able to understand which of three price point and package size scenarios would be best for expanding incremental sales without eroding the market share of its other products.

Elsewhere, a consumer durables company had challenges with a product, which consumers said was too expensive compared with competitor offerings. The engineering team said there was no way to take costs out of the product itself, so they looked to packaging for options. An analysis found that many consumers were already buying the product in multiples. Redesigning to a double pack saved space in shipping containers and on store shelves. The benefits included 10 percent savings in packaging, manufacturing, and shipping costs, along with reduced carbon emissions and increased visibility and shelf-holding power. The cost savings were used to decrease the price. Ultimately, the company cut costs and increased revenues and unit sales by 30 percent year on year while improving consumer experience.

Packaging that enables channel expansion

Many companies are thinking about how their packaging needs to change for the dot-com channel, versus in-store purchases. A manufacturer of a heavy, assembly-required consumer durable product came up with a clever solution that allows sales direct to consumers via e-commerce. It repurposed a packaging component to function as a support to aid

assembly at home, reducing the maximum weight the consumer had to lift during assembly from 80 pounds to 30 pounds.

With PPA simulations, companies can also look for the right combinations of packaging size and configuration for specific consumer segments and channels, such as convenience stores versus warehouse clubs and big-box stores, or professional versus home users. Getting this right can expand share within those target groups while also reducing overall packaging consumption.

On the packaged-goods side, a beverage company wanted to enter new convenience store channels. To get started on the best packaging design, it harnessed in-depth consumer insights to understand occasions, brand perceptions, unmet needs, and opportunities for differentiation. Then the company modeled more than 1,000 price and pack combinations using PPA tools to understand their effect on volume, sales, and net profit, with sensitivity analysis for distribution, velocity, and pricing. From there, the company came up with around 100 design concepts across formats (for example, single serve, case packs, occasion packs), which were assessed against costing impacts and competitor pricing, packaging, and claims. Finally, 21 design concepts were tested with consumers to analyze willingness to pay and preference relative to current and competitor offerings. Ultimately, the company launched bold, consumer-validated designs, which gave a premium to its offerings and allowed entry into previously unserved channels. The two-year strategy is projected to deliver increases of 15 percent by volume and 45 percent by value. The PPA analysis ensured the new product concepts will be margin-accretive, driving 45 percent profit improvement, and sustainability improved as a result of changes such as label-less bottles and greater freight efficiency.

Streamlining supply chains

Some companies are generating new value through packaging strategies that address key points in their upstream and downstream supply chains. For example, the challenge of secondary packaging has become particularly acute in e-commerce channels, where a single product is often shipped surrounded by an additional box and protected by dunnage materials. Ships-in-own-container (SIOC) packaging designs are increasingly favored by e-commerce retailers and have been proven to cut costs, improve freight efficiency, and improve consumer experience. One toy maker used this approach to replace 19 separate packaging components with a single box. That reduced packaging volume for e-commerce shipments by 88 percent.

Downstream of purchase, returns represent a substantial cost for manufacturers and retailers: 10 percent of sales for purely brick-and-mortar purchases and 17 percent of sales for purely online purchases, according to the National Retail Federation.[2] Fixing the returns issue not only takes waste out of the overall supply chain but also can drive growth and consumer satisfaction. Additionally, designing packaging for better damage protection and for reshelvability can reduce the number of scrapped products and amount of waste headed for recycling or disposal.

Savvy companies have analyzed product returns and consumer complaints to uncover ways that packaging can help minimize the need for a consumer to return an item and can enhance reshelvability when a product must be returned.

Direct-to-consumer shipments tend to involve rough, unpredictable handling and frequent damage, which adds costs to businesses and inconveniences the consumer. After experiencing damage rates of around 5 percent during shipping, one manufacturer of water

[2] *Customer returns in the retail industry 2021,* National Retail Federation, January 2022.

purifiers used advanced computer simulation techniques to understand exactly how dropped packages caused its products to break. It then used simulation to develop protective inserts that cut damage rates more than tenfold while reducing packaging costs by a fifth.

Other goods are returned not because they are damaged but because something else has gone wrong. Here, packaging has a dual role, helping prevent the returns in the first place and allowing returned items to be reshelved for resale. The first requires understanding and eliminating the consumer pain points that are driving the returns, and the second requires designing packaging so it is not destroyed when consumers open it.

Products increasingly use their packaging to communicate where they land on the spectrum of attributes, which helps to manage consumer expectations. Examples include labeling foods as having extra-spicy or mild flavors and using a "scent-o-meter" to convey the strength of a fragrance.

Products that need consumer installation are especially ripe for returns. Armed with a deep understanding of its consumer pain points, a do-it-yourself (DIY) company made several packaging changes to the doors it sells. Packaging graphics now feature a large image of the product and a complete list of included components and required tools, to help consumers understand the scope of the installation task prior to purchase. The packaging also includes a step-by-step breakdown of key elements to cover before unboxing, a QR code that links to instructions on how to measure and confirm the correct door size, and a ruler, printed on the top of the box, that can be used for quickly double-checking that the door will fit the frame. Finally, the box opens on a hinge, making it simple to reclose and return if required.

A maker of plumbing fixtures had designed beautiful packaging that showed off the product's design and finish. But consumers were not clear on the complexity of installation, which involved plumbing tasks, including cutting and resoldering pipes. The manufacturer reduced returns from overwhelmed DIYers by adding a "difficulty gauge" to the packaging and including a list of the advanced tools required for installation.

Where the CEO/COO fits in

For consumer goods companies, packaging innovations have the potential to boost sales, cut costs, and reduce environmental footprint (see sidebar, "For further reading"). Often, they can achieve all three objectives at once. Yet few businesses have deployed an organization-wide, cross-functional packaging improvement strategy or invested the resources to implement one. Organizations often create separate teams responsible for cost, growth, and sustainability, with different respective reporting structures and goals that converge at the C-suite level. Accounting and incentives are often not holistically optimized. Unless the C-level engages, it can be difficult to realize the full potential associated with packaging changes.

A McKinsey analysis of global consumer packaged-goods (CPG) players found that even at some of the most sophisticated multinational companies, the packaging organization still lags. Packaging can account for 15 to 25 percent of direct costs for consumer goods companies. At many companies, however, packaging full-time-equivalent (FTE) employees account for 5 to 10 percent or less of the global R&D team, and those staff are often dispersed around the world, operating in silos within category-specific R&D teams. Forward-thinking CPG companies should consider elevating packaging to the status of an important strategic priority, cutting across the full company, rather than treating it as a discrete cost center. Here's how that might unfold.

Companies can start the journey by establishing bold aspirations for better packaging performance across multiple dimensions, backed by clear KPIs and targets

for sustainability, cost reduction, growth, and consumer experience. To deliver against those targets, companies will need to build up their packaging capabilities. Some leading consumer products organizations are already establishing global packaging centers of excellence—for example, to identify and share best practices. Top players are also investing in new resources, including databases and advanced tools (digital, simulation, gen AI). Optimized packaging calls for organizational changes too, including cross-functional teams to ensure all relevant stakeholders (such as finance, marketing, logistics, manufacturing, and sustainability) have a voice in packaging decisions.

Above all, smart packaging requires smart leadership. Strategic direction from the C-suite is needed to elevate the packaging function and drive the transformation portfolio-wide at scale, across products, categories, and geographies. And C-level executives need to make the case for a transformation—one that brings packaging decisions back from the periphery into the core of the organization's operational and sustainability strategies for product development.

Dave Fedewa is a partner in McKinsey's Atlanta office, **Jennifer Spaulding Schmidt** is a senior partner in the Minneapolis office, and **Scott Woodruff** is a partner in the Chicago office.

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For further reading

— "Generative AI fuels creative physical product design but is no magic wand" (McKinsey, 2024). Generative AI tools can shorten physical product design life cycles significantly and spark innovation, but the knowledge and discretion of design experts are necessary to mitigate potential pitfalls.

— "How product design can yield 'triple wins': Growth, margin, and sustainability" (McKinsey, 2024). Some consumer companies have simultaneously increased sales, cut costs, and reduced carbon emissions. Their secret? Paying closer attention to the design of their products and packaging.

— "Skinny design: Smaller is better" (McKinsey, 2023). This podcast explores the concept of "skinny design" and its potential benefits for consumers, retailers, and the environment. McKinsey experts delve into the cost savings, sustainability, and commercial advantages of reducing the size of product packaging, and they discuss innovative solutions such as nesting products and honeycomb packing formats to reduce stockouts and improve sustainability and consumer experience. The interview also highlights the importance of cross-functional collaboration in product design and the need for stakeholders to align incentives for optimized product development programs.

— "Use star ratings to inform durable goods redesigns and spur growth" (McKinsey, 2022). Star ratings have outsize influence on consumers shopping for appliances and other durables. Companies can use them to initiate a cycle of better product designs, happier buyers, and sales growth.

— "Why business must heed customer reviews" (McKinsey, 2022). The explosion of online reviews over the past two years has created a new level of product transparency between brands and their consumers. Having a great product is more important than ever, as long-standing brands can face quick disruption from the e-commerce environment. In this McKinsey podcast, Dave Fedewa and Chauncey Holder explore which products are most susceptible to disruption and how companies can accelerate growth in market share and sales by listening to direct consumer insights.

— "Five-star growth: Using online ratings to design better products" (McKinsey, 2021). New research shows that small changes in star ratings can drive explosive growth for products—on the order of 30 to 200 percent, depending on category. Driving those changes at scale requires a novel approach.

— "Skinny design: Smaller is better" (McKinsey, 2022). Designing packaging and products with supply chain and in-stock issues in mind can increase revenues and profits, all while meaningfully improving sustainability. Three steps can point the way.

— "How generative design could reshape the future of product development" (McKinsey, 2020). Smart algorithms won't just lead to better products. They can also redefine how product development is done.

— "Product sustainability: Back to the drawing board" (McKinsey, 2022). Up to four-fifths of a product's lifetime emissions are determined by decisions made at the design stage. By building on proven cost optimization techniques, companies can get those choices right.

— "Charting a winning course for CPG value creation" (McKinsey, 2021). In the next normal, consumer goods companies can achieve profitable growth and outsize returns by renewing their focus on core execution capabilities.

— "Slim beverage cans gain ground against their squatter cousins" (*Wall Street Journal,* July 2022). The article highlights how beverage companies are increasingly moving to skinny 12-ounce cans. It quotes McKinsey's Dave Fedewa, who offers reasons behind these redesigns—not only better consumer experience but also the ability to fit more product into the same space on store shelves and trucks. In addition, thinner cans tend to sell better and help save on freight costs.

— "Modern CPG product development calls for a new kind of product manager" (McKinsey, 2020). Consumer goods companies need to balance rapidly changing consumer and market needs with relevant product experiences. Enter the modern product manager.