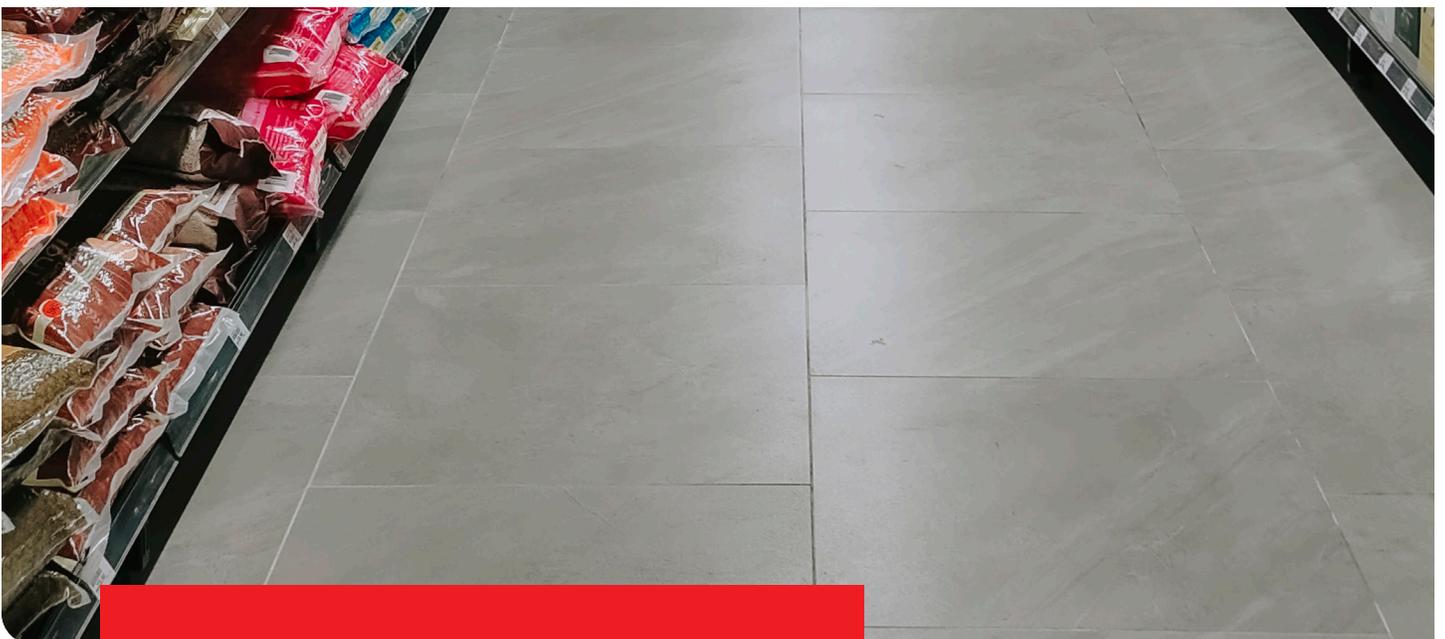


How COVID-19 Changed Packaging Forever



HOW COVID-19 CHANGED PACKAGING FOREVER

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INTRODUCTION: AN ALTERED LANDSCAPE

Unidentified by science before January 2020, the SARS-CoV-2 virus has since transformed nearly every aspect of life: the ways we interact, work, travel, communicate, and, above all, consume. The implications of the latter for producers of consumer packaged goods are only now becoming fully clear.

Like every other sector of the U.S. economy, the packaging industry suffered its share of setbacks during the COVID-19 pandemic. On the whole, however, packaging benefited strongly from changing patterns of consumption that emerged as the nation learned to cope with lockdowns and other restrictions that came with fighting the spread of the disease.¹

Rising demand for products in many categories drove innovations that increased variety, ease of use, and safety for consumers. Think, for example, of single-use packages in smaller sizes protected by seals and labels that assure product safety. Although it was somewhat overshadowed by other priorities, sustainability influenced the design and manufacture of packaging in important new ways. Throughout the pandemic, the explosion of ordering via e-commerce amplified the market for packaging of almost every type.

Chart 1 (on page 3) indicates that these trends have been transformative across the board, and are expected to remain so even as the pandemic recedes. But, growth in some areas happened while other segments stagnated or declined. This points to the fact that in a post-COVID-19 landscape, consumers' expectations and buying habits will be different from what they were before the pandemic upended their lives.

Consumers will, for example, insist even more strongly on value, safety, and hygiene in the products they buy, just as they did during the height of the outbreak. Their use of e-commerce, initially a matter of necessity, will become an everyday method of sourcing goods and services.

This white paper aims to identify the COVID-driven market shifts that have had the most direct effects on demand within the principal categories of consumer packaging. It also discusses the meaning of these changes for each category, emphasizing what producers of packaging need to know to stay ahead of the trends.

CHART 1: COVID-19 LONGER-TERM DEMAND IMPACT BY END MARKET

Longer-term trends	Key beneficiary packaging substrates
Increased use of e-commerce	> Flexible mailers; thermoformed containers
Increased emphasis on hygiene	> Nonwovens; flexible; rigid
Increased use of delivery services (groceries, pharmacies, restaurants...)	> Flexible
Increased focus on health and wellness (including medical and healthcare)	> Rigid; flexible; labels
Increased focus on sustainability (shift from plastic to paper)	> Kraft paper for packaging; foodservice; grocery bags
Increased focus on domestic supply chain and sourcing of various products considered critical or of national security (for example, pharmaceuticals)	> All packaging

Source: Mesirow.

HOW COVID-19 CHANGED — AND DIDN'T CHANGE — CONSUMER PURCHASING PREFERENCES

Back to Basics

Surviving COVID-19 refocused most people's attention on the basics: securing enough of the goods and supplies they would need to maintain an acceptable quality of life. That focus will remain in place after the pandemic is over, and the outlook for packaging will continue to be influenced by it.

Data gathered by J.P. Morgan Research showed that at the height of the lockdowns in 2020, the products consumers bought most were household cleaners and soap, vitamins and supplements, hair color, and coffee. Double-digit declines were seen in cosmetics and sun-care products.²

Categories in decline, noted a J.P. Morgan analyst, "will find it very hard short-term. They should come back, but discretionary products more closely linked to the economic cycle will be more impacted because they are generally not must-haves."

J.P. Morgan predicts that over the next 12 to 24 months, unemployment will leave many consumers with less money in their pockets and more time to spend at home. That could prompt some of them to look for more affordable options, although loyalty to name brands appears to be holding out against the lure of lower-priced alternatives.

According to McKinsey & Company, the third phase of the world's response to the pandemic (after initial shock and subsequent response) should be a rebound during which overall packaging demand improves.³ Although sectors like packaging for food service should recover rapidly, others will need more time. Examples are luxury products, travel, and hospitality, which people may avoid returning to right away.

Like J.P. Morgan, McKinsey thinks that some consumers' purchasing behavior could stay soft as businesses emerge only weakly from the crisis and employment levels suffer.

Brands and packaging service providers also should be aware that habits formed by consumers in response to the pandemic could outlast it. Plug and Play, a business development advisory group, notes that older people, vulnerable to the virus and often unable to leave their homes, have embraced e-commerce as their safest option for shopping.⁴ But they tend to purchase only the things they need, taking price and value into consideration when they do.

All of this requires packaging strategists to study not only what changed during the pandemic, but what is likely to stay the same once it is over. Basic goods, hygiene and sanitation, e-commerce, and sustainability are not going anywhere as catalysts for package development and will only increase in importance as recovery comes full circle.

New Set of Priorities

Before COVID-19, most packaging was aligned with the requirements of traditional retailing outlets. Now, with many types of goods bypassing stores entirely in direct-to-consumer channels, there is a new set of priorities for the composition, design, and performance of packaging. As home shipping substitutes for store shelving, producers of consumer goods must assume that every item they offer is a candidate for e-commerce — and acknowledge that they will have to adapt their packaging accordingly.

In practice, this means making sure that primary and secondary packages are robust enough to withstand transport and handling throughout multiple distribution points over what often will be great distances. Damage prevention and product protection go without saying, but ensuring a high-grade experience for recipients should get the same level of attention from e-commerce-wise CPG manufacturers.

This is because consumers who shop online expect their packages to be sanitary, convenient, sustainable, and visually appealing — just as they do in stores. Packages that meet all of these criteria strengthen brand loyalty by inspiring confidence in the delivered product and by implicitly complimenting the recipient on the smart choice that he or she has made.

E-commerce existed before COVID-19, but the enormous surge of use that the channel experienced during the pandemic has turned it into the default shopping option for millions of consumers. According to one estimate, e-commerce penetration as a percentage of retail sales increased in the eight weeks following the lockdowns of March 2020 by as much as it did during the previous 10 years.⁵

Here to Stay

The surge, moreover, shows no signs of abating. The Census Bureau of the U.S. Department of Commerce puts the seasonally adjusted value of U.S. retail e-commerce sales at \$437.5 billion in the first two quarters of 2021, with e-commerce representing

13.3% of all retail sales in the second quarter.⁶ In the second quarter of 2021, e-commerce sales increased almost 10% from the second quarter of 2020, continuing to climb even as shoppers began returning to their regular brick-and-mortar outlets.

This strongly suggests that the rise of e-commerce and its effects on packaging are here to stay. Out of necessity, during the worst of the pandemic, consumers became more open to the idea of doing their shopping in online channels. With more of them sourcing goods and services this way than ever before, and with no definite end of the pandemic yet in sight, their reliance on e-commerce can only grow.

Lingering hesitancy on consumers' part plays directly to the strengths of e-commerce. Some research indicates that more than three-quarters of consumers are looking for indicators beyond the lifting of restrictions before they resume out-of-home activities: a wait-and-see attitude that seems calculated to drive further purchasing online. For example, in its report on how the packaging industry can navigate the coronavirus pandemic, McKinsey cites research claiming that consumers intend to double their spend on online-only grocery stores.⁷

Nearly all consumer product categories are expected to show continuing increases in online purchasing, particularly OTC medicine, groceries, household supplies, and personal care products. Chart 2 presents McKinsey and Mesirow data for the packaging formats that are poised to benefit the most: corrugated shipping boxes, other forms of protective packaging, flexible films, rigid containers, plastic bottles and tubes, metal aerosol cans, and jars.

These forecasts are clear enough for CPG producers, but packaging service providers must be closely attuned to post-COVID consumer sentiments in order to take

CHART 2: EXPECTED GROWTH % IN CUSTOMERS' PURCHASING CATEGORY ONLINE (BEFORE AND AFTER COVID-19) AND ITS IMPACT ON PACKAGING SUBSTRATES

Category	Expected Growth %	Impact on Packaging Substrates
OTC medicine	+44%	Tubes, bottles, jars and caps / closures
Groceries	+41%	Flexible, rigid plastics and corrugated packaging
Household supplies	+38%	Plastic bottles and metal aerosols
Personal-care products	+38%	Tubes, bottles, jars and caps / closures
Alcohol	+34%	Metal and glass bottles
Furnishings and appliances	+30%	Flexible, rigid plastics and corrugated packaging
Food takeout & delivery	+28%	Food-service packaging (e.g., plastic, paper)
Fitness and wellness	+28%	Corrugated and protective packaging
Vitamins / supplements	+27%	Tubes, bottles, jars and caps / closures
Non-food child products	+25%	Flexible, rigid plastics and corrugated packaging
Snacks	+20%	Flexible films (e.g., oriented polypropylene)
Jewelry	+19%	Folding cartons and paper boxes
Apparel	+19%	Corrugated and microflute packaging and cartons
Skin care and makeup	+18%	Plastics, tubes, glass and jars
Accessories	+18%	Corrugated and microflute packaging and cartons
Footwear	+16%	Corrugated and microflute packaging and cartons
Tobacco	+15%	Cartons
Books / magazines / newspapers	+11%	Corrugated and microflute packaging
Consumer electronics	+10%	Corrugated and protective packaging
Entertainment at home	+4%	Corrugated and protective packaging

Expected Growth %

- Greater than or equal to 30%
- Less than 30%, greater than 15%
- Less than or equal to 15%

Source: McKinsey & Company (August 2020), Mesirow.

advantage of the opportunities that the rise of e-commerce represents. In general, online shoppers are returning to the basics of convenience and value as they focus on the essentials — the everyday items that they once had no other choice but to go the store to get.

They also have embraced new behaviors and lifestyles that breed corresponding changes in packaging, particularly for food. McKinsey identifies some of these as reducing food preparation time; packaging ready-to-eat fresh meals; enabling “portionability” (individual portions sold in larger, multi-serving packages); and improving portability with smaller packs.⁸

Hygiene High on the List

Another trend that needs to be taken seriously is the demand for hygiene transparency — assurance that the package will protect both the contents and the end-user of the contents from contamination of all kinds.

Understandably, this mindset gained considerable strength because of the pandemic. In May 2020, a packaging trade magazine reported that two out of three Americans said they were at least somewhat apprehensive about contracting COVID-19 through food packaging. At the same time, 44% said they were cleaning food packaging with a disinfectant.⁹

Worries about packages as vectors for spreading the coronavirus have receded since then, but hygiene and safety remain imperatives for producers of packaging. Consumers will continue to prefer packages that uphold these standards — for instance, by using substrates and surface treatments that minimize the transmission of microbes and the diseases they cause.

Even as they stop having to think about everything in the context of COVID-19, consumers are staying mindful about what they want to spend their money on. Their benchmarks for products and packaging still include sustainability, which has emerged from the pandemic with its mandates intact.

Before COVID-19, much ground had been gained in making packages reusable, recyclable, and compostable. Consumers appreciate these qualities in packaging, but their attitudes shifted once the pandemic began to take hold.

Questions arose, for example, about the hygiene and safety of reusable packages. The increased demand for food delivery drove a corresponding spike in single-use packages. Plastic, the perennial bad-guy material in the minds of many environmentalists, began to look more benign thanks to the hygienic protection that packaging made of it offers.

Don't Disdain Sustainable

However, the change of heart won't be permanent. The Kearney consultancy estimates that in the best case, the plastic waste associated with COVID-19 increased by some 10 million tons, putting additional strain on an already overburdened recycling infrastructure.

Awareness of this, according to Kearney, is why nearly half (48%) of consumers who responded to its 2020 Earth Day survey said that the outbreak had made them more concerned about the environment. More than half (55%) declared that, as a result of their COVID-19 experience, they were more likely to purchase environmentally friendly products.¹⁰

Other data points from the Earth Day survey highlight the implications for packaging. Nearly two-thirds of those polled expect companies to clearly explain environmental benefits on their product labels or websites. More than three-quarters of respondents believe companies could be doing more to help them make decisions that improve environmental outcomes.

The pandemic may have slowed packaging's progress toward sustainability and circularity, but the market forces behind these goals have lost none of their underlying strength. Going forward, packaging producers must ensure that making packages durable, safe, efficient and attractive includes giving them the environmental credentials that consumers clearly want to them to have.

Mandates From Other Geographies

Something else to bear in mind is that sustainability doesn't only begin at home — its best practices can be imported across international borders. For example, in the absence of specific regulations for the safety of food packaging inks from the U.S. Food and Drug Administration (FDA), many ink suppliers look to the well-known "Swiss Ordinance" and the Nestlé Guidance Note on Packaging Inks for ensuring food packaging safety.

Another wave of influence could be on its way from France, which recycles less than 25% of its plastic packaging.¹¹ Although the government has promised that 100% of plastics will be recycled by 2025, it is also attacking the problem from a different direction: by systematically eliminating packaging and other products that create plastic waste from daily life.

This was set in motion by a 2020 law that bans plastic packaging for nearly all fruits and vegetables as of January 1, 2022.¹² It's believed that the restriction will prevent the use of more than one billion plastic packaging items per year.

The ban on produce packaging is part of a sweeping, multi-year campaign by the French government against single-use plastic in a variety of forms.¹³

2020 also brought the phase-out of plastic plates, cups, and cotton buds, followed by bans on plastic straws, cutlery, and Styrofoam containers in 2021. Next on the forbidden list are tea bags containing plastic (many do, as a stabilizing agent for the mesh); toys given away free at fast-food restaurants; and disposable dishes at fast-food restaurants for meals served on-site.

The ultimate goal is a complete phase-out of all single-use plastics by 2040.

Bans as comprehensive as these won't necessarily be imposed by other countries. But, because plastic waste is widely perceived to be a global problem, brands and packaging manufacturers should expect overseas initiatives to gain traction, in one way or another, in their domestic markets.

GAUGING INDIVIDUAL PACKAGING SECTOR IMPACTS

As the means for conveying goods to consumers in the world they live in, packaging continuously adapts to the pressures and expectations placed upon it. For the most part, before and since COVID-19, the adaptation has been successful.

The Smithers research organization has assessed the impact of five trends — sustainability, consumer preference, regulatory, e-commerce, and technology innovation — on five major packaging sectors: flexibles, rigid plastic, board, metal, and glass.¹⁴ Most of the impacts for these sectors are expected to be positive or neutral, with varying degrees of change foreseen in a post-COVID-19 environment. Other sources also report a generally sanguine outlook for these sectors, as summarized on the following pages.

Flexible

A 2021 “State of the Industry” report by *Packaging Impressions* indicated that shifts in consumer demand brought on by COVID-19 were mostly favorable for printers and converters of flexible packaging.¹⁵

Sales of frozen foods, household goods and many other products sent to store shelves packaged in flexible films surged. The report also notes that before the pandemic struck, converters were already benefiting from a trend toward replacing rigid packaging with flexible alternatives.

Providers of flexible packaging to COVID-impacted institutions such as schools, colleges, hospitals, and cafeterias suffered some losses, according to the report, which also observes that recovery for the sector as a whole depends on how quickly consumer activity returns to pre-COVID norms.

Smithers says that flexible packaging was among the least affected sectors thanks to the high share of food packaging that it accounts for. Nevertheless, Smithers does not rule out negative impacts for flexibles and rigid packaging in terms of sustainability and regulation.

Rigid Plastic

New research from Technavio forecasts the global rigid plastic packaging market to grow by \$63.7 billion at a CAGR (compound annual growth rate) of 5.9% between 2021 and 2025, with the rising demand for rigid plastic packaging from the food and beverage industry as one of the major drivers.¹⁶ But, the high cost of recycling rigid plastic products may impede the market growth, according to Technavio.

Another market analyst group, Vision Research Reports, predicts that the world market for rigid plastics will reach \$275 billion by 2030 with a CAGR of 5.5% from 2021 to 2030 despite a 10% to 20% drop in demand for packaging products across categories due to the economic impact of COVID-19.¹⁷

Supply tightness is expected to increase in coming months with the depletion of suppliers' inventories across the globe. Over time, however, the sector is expected to benefit from changing lifestyles that increase demand for convenience packaging in rigid formats.

Board

The Smithers' study, "The Future of the Global Folding Carton Market to 2026," shows that the COVID-19 pandemic slowed but did not reverse the increasing demand for paperboard folding cartons in progress since the 2010s.¹⁸ As the impact of the pandemic recedes, the market is expected to achieve a 4.6% CAGR through 2026.

Factors favoring a rebound include the substitution of board for plastic to meet sustainability goals, rising e-commerce sales, the wider use of digital printing for quick-turnaround, variable-data packaging production and, in the short term, the need for COVID-19 supplies such as home test kits.

The migration of plastic packaging structures to paperboard will gain momentum as brands seek new opportunities to replace existing materials with more sustainable alternatives. Notable recent examples include:

- The CanCollar® from WestRock eliminates ringed plastic can holders with a placard of circular cutouts made of CarrierKote®, a renewable, responsibly sourced, recyclable paperboard that contains up to 15% recycled content.¹⁹ The CanCollar surface can be printed or embellished to reinforce brand elements and elevate the consumer experience.
- Procter & Gamble, taking aim at single-use plastic containers, has repackaged its Old Spice and Secret solid deodorants in two ways: either in paperboard sourced from FSC-certified forests and made from 90% post-consumer recycled paper; or in a reusable plastic case that accepts refills made of 100% FSC-certified paperboard.²⁰
- For the first time, Chobani's oat yogurt products will go to market in paper cups made of responsibly sourced and renewable materials.²¹ The cups, consisting of 80% paperboard, feature a thin plastic lining to maintain the quality of the product. Chobani says it intends to continue to look for ways to use less plastic and more paper in its packaging.

Metal

According to Technavio, the metal cans market for the global food and beverage industry should enjoy a CAGR of 3.6% between 2021 and 2025.²² Growth opportunities will come from the increasing launch of new food and beverage products in metal cans, the rising adoption of reusable packaging, and the growing focus on improving the shelf life of products.

Package safety and product integrity, both areas of concern for consumers during COVID-19, are strong selling points for metal containers. According to the FDA, there has

not been an incident of foodborne illness resulting from a failure of metal packaging in more than 40 years.²³ The canning process destroys pathogens, preserves nutrients, and extends shelf life — all virtues that consumers appreciate in the heightened awareness of personal well-being that the pandemic has instilled in them.

Metal cans for food and beverages are also well-suited to the logistics of e-commerce. They resist damage during transport; save energy by shipping at non-refrigerated ambient temperatures; and travel anywhere in the world without fear of spoilage or sell-by-date expiration. As e-commerce traffic increases, so will the volume of product delivered in these containers.

Glass

Glass packaging reaffirmed its status as an essential industry during the pandemic, notes Research and Markets in an overview of the sector.²⁴ Demand for glass rose in food and beverage, which accounts for 90% of all glass containers used. Pharmaceutical and health applications — vials for medicine and bottles for hand sanitizer — also increased, as did glass packaging for perfumes and cosmetics.

The closure of bars, hotels, and restaurants during lockdowns brought two negative impacts: reduced sales of bottled goods to these outlets and a restricted supply of recyclable glass coming from them. This has refocused attention on consumer recycling of glass to prevent disruption to the supply chain, according to Research and Markets.

Post-COVID, glass could face pressure in e-commerce channels because of its comparatively high shipping weight. However, glass bottles remain containers of choice for many products thanks to their chemical inertness, sterility, and non-permeability. As *Forbes* has pointed out, it would take millions of years for one molecule of oxygen to permeate glass, while it would take minutes for it to go through plastic.²⁵

The see-through nature of glass also adds strongly to its market appeal, in the opinion of Mordor Intelligence.²⁶ Citing a trend toward visibility in food packaging over the past few years, Mordor says consumers increasingly want to see the physical product inside the package before purchasing it. This has prompted dairy product companies and other suppliers to start offering more of their products in transparent glass containers.

Other Post-COVID Impacts

Despite the economic damage it inflicted, the pandemic did not slow down the pace of research and development in the packaging industry. If anything, packaging technologists worked even harder to devise solutions for a consumer marketplace reshaped by the experience of COVID-19. Two examples of this ongoing innovation are digital printing for packaging printing, and the digitalization of the packaging value chain.

Because of its high volumes, packaging used to be mostly off limits to short-run-oriented digital printing systems. But, with changes in patterns of consumption that predate COVID-19, digital presses have come into their own as solutions for the kinds of quick-

turnaround, short-run, highly versioned packaging jobs that brands increasingly want their print service providers to deliver.

Supply chain disruptions caused by the pandemic frequently stepped up demand for small batches of packaging and labels on short notice — for instance, to support the emergency production of hand sanitizers and cleaning supplies. As the pandemic recedes, brands will continue to confront fragmented audiences with a broad spectrum of wants and needs. Digital printing, with its automation, variable output and increasing ability to handle heavier stocks in longer runs, will grow in popularity as a preferred packaging solution for the post-COVID world.

McKinsey sees digitalization as an outcome of the pandemic, which exposed a need for more resilience and transparency throughout the packaging value chain.²⁷ This will lead to greater use of artificial intelligence (AI) for monitoring cost efficiency and productivity and tracking processes in real time. McKinsey also sees integrating technologies such as radio-frequency identification (RFID) tags and near-field communications (NFC) into packaging as means to these ends.

Brands and converters were already experimenting with RFID and NFC for “smart” packaging applications before the pandemic struck. They may be expected to take further steps in this direction as a hedge against the next disruption of the supply chain, whatever form it may take.

SECTOR SPOTLIGHTS: CORRUGATED AND LABELS

Brown Boxes Looking Better than Ever

Although it is impossible to thank a pandemic for anything, the boost that COVID-19 has given to corrugated packaging is equally impossible to deny.

By one estimate, corrugated container demand is projected to grow about 6% between 2021 and 2023.²⁸ In January 2021, Packworld reported that, along with other factors, the explosion of e-commerce sales was pushing demand to the point of straining the corrugated industry’s ability to produce and recycle the volumes of corrugated shipping boxes that the market now relies on.²⁹

All in all, the COVID-driven surge has been something of a mixed blessing for corrugated, with demand for its packaging in some product categories trailing demand in others.

For example, surveys by McKinsey in March 2020 predicted negative impacts for corrugated in home electronics, footwear, and apparel as consumers said they expected to spend less on these items.³⁰ Chart 3 (on page 12) indicates that although the outlook is broadly favorable in the near term of the recovery, it is also specific to individual end markets. More specifically, e-commerce is the only category expected to emerge from the pandemic with its appetite for corrugated as strong as it was during the pandemic.

That said, corrugated has underlying strengths that position it securely for continued growth overall. According to the Fibre Box Association, the \$35.2 billion U.S. corrugated industry makes packaging that transports more than 95% of all goods consumed in

CHART 3: NEAR-TERM CORRUGATED DEMAND OUTLOOK IS END-MARKET SPECIFIC

End market	% of total	Initial Impact	Near-term outlook	Commentary
Food & beverage	45%			
Processed food				Strong immediate demand for shelf stable options; growth moderating after stock up
Beverage				Decline in foodservice demand not offset by strong retail
Protein				Strong retail demand; near term impact of processing plant shutdowns
Fresh produce				Growing retail demand; varies by category
Other non-durables	30%			
Chemicals & pharmaceuticals				Consumer focus on health and sanitation
Paper, towels & tissue				Strong demand for personal care and hygiene products; partly offset by printing papers
Other non-durables				Pullback in discretionary spending and impact of "non-essential" business
Durable goods & distribution	25%			
E-commerce, shipping & distribution				Greater dependence on e-commerce as primary spending channel
Durable goods				Pullback in discretionary spending; growing demand for various categories

Source: Mesirow, International Paper Investor Roadshow (October 2020).

North America. Close to 40% of all corrugated containers produced annually are used for food and beverages — a bedrock market for any form of packaging.³¹

Corrugated is also getting fresh attention from CPG manufacturers as a vehicle for branding. Advances in decorative techniques for corrugated board have helped the medium broaden its repertoire of applications from simple shipping containers to shelf-ready packaging. As a result, brands now can expect corrugated to generate the same in-store visual appeal for their products as any of the other forms of packaging that they use.

Furthermore, no other packaging material comes close to corrugated in terms of its potential for sustainability. The U.S. Environmental Protection Agency (EPA) reported that corrugated boxes had a recycling rate of 96.5% in 2018.³² The Fibre Box Association says that the average corrugated box is made with 50% recycled content — miles ahead, in its view, of any other packaging material's recovery and reuse rates.³³

For all of these reasons, the corrugated shipping box — first introduced in

1871³⁴ — can make a persuasive claim to being the package of the future in a post-COVID economy.

Labels: The Old and New 'Normal'

In a 2020 report on the state of the label industry, *Packaging Impressions* noted that business conditions in the segment probably remained closest to what the rest of the printing industry remembered as "normal" in the days before COVID-19.³⁵

Because soaring demand for labels in some categories — most notably, food — compensated for losses in others — such as industrial accounts — the segment as a whole did not suffer. Orders rose as many customers overbought to build up emergency inventories of labels against supply chain crunches.

One label converter quoted in the report said his customers were “marketing more toward need than to variety” as they tried to keep their pipelines stocked with essential products. Another called the endless appetite of e-commerce channels for stock shipping labels a “boon” for producers of these items.

The advantages that sustained label producers throughout the pandemic should also keep them prospering in its aftermath. Describing the label segment as “considerably stable” in the period of COVID-19, Mordor Intelligence forecasts a 4.2% CAGR for the print label market from 2021 to 2026.³⁶ SKU proliferation, reduced run lengths, requirements for more regulatory content on labels, and customers’ desire for a more attractive look are among the trends that will furnish the momentum, Mordor believes.

Advances in printing technology will play a large part in the dynamics of the label market after COVID-19. A recent analysis by the Freedonia Group identifies labels printed with variable data on digital presses as an area of growth, along with greater use of complex, high-quality graphics.³⁷ Digital presses, flexographic presses, and hybrid platforms that combine the two processes are expected to increase their share of the label market at the expense of all other printing methods now being used.

CONCLUSION: SEAL THE PACKAGE WITH JOY

Assessing the impact of a pandemic is a somber exercise. But, amidst the harsher realities, the fact remains that one key function of a package is to bring satisfaction, excitement, and even joy to its recipient. This is the essence of the unboxing experience — a form of consumer engagement that took on even greater urgency for brands during COVID-19.

Unboxing videos have been attracting vast audiences on YouTube and other social media channels since the 2010s. Google estimates that the amount of time people have spent watching them on their phones alone equals watching the holiday movie classic “Love Actually” more than 20 million times.³⁸

In these mini-documentaries, writes an analyst for Packaging-Gateway.com, “the slow reveal inside the packaging became an important part of the experience. This is when packaging — both primary and secondary — could make or break a brand or product.”³⁹

The idea, according to Clear Strategy, is to stimulate “surprise and delight at a critical moment of engagement — to maximize the dopamine hit of unboxing. The in-home experience creates a strong in-the-moment connection with each consumer, leading to stronger loyalty and likelihood to repurchase.”⁴⁰

The skyrocketing of e-commerce during the pandemic let consumers enjoy many more of these gratifying experiences, which they now have come to expect as a reward for shopping online. The expectation will remain even as they return to brick-and-mortar retailing, dividing their spending between these environments and the e-commerce channels that have become second nature to them as a result of COVID-19.

Packaging that aims to heighten the unboxing experience should be produced accordingly: sturdy enough to resist damage in transit, decorated for a “wow” first

impression inside and out, easy to open and constructed without an excess of material that might complicate disposal and recycling. These qualities enable packaging to forge and reinforce connections to brands that consumers regard as truly important in their lives.

The unboxing experience is an apt example of how COVID-19 has transformed packaging: not necessarily by introducing anything new, but by magnifying the value and effectiveness of the attributes that packaging already possessed. History teaches that pandemics come and go. Current events prove that packaging designed for commercial success and consumer satisfaction can endure whatever stresses the tides of history send its way.

SUMMARY: MAJOR PACKAGING INDUSTRY IMPACTS IN A POST-COVID WORLD

- Surviving COVID-19 refocused most people's attention on securing enough of the goods and supplies they would need to maintain an acceptable quality of life. That focus on the basics will remain in place after the pandemic is over, and the outlook for packaging will continue to be influenced by it.
- Although packaging sectors like food service should recover rapidly, others — such as luxury products, travel, and hospitality — will need more time. Consumer purchasing could stay soft as business and employment take time to recover.
- The enormous surge in the use of e-commerce during the pandemic has turned the channel into the default shopping option for millions of consumers. With no definite end of the pandemic yet in sight, their reliance on e-commerce can only grow.
- The demand for hygiene transparency — assurance that the package will protect both the contents and the end-user of the contents from contamination of all kinds — will continue as an imperative for package producers after the pandemic recedes.
- Sustainability has lost none of its force as a consumer expectation. Going forward, packaging producers must be sure of giving packages the environmental credentials that consumers clearly want them to have. Packaging manufacturers should assume that overseas initiatives for sustainability will gain traction, in one way or another, in their domestic markets.
- Digital printing, with its automation, variable output and increasing ability to handle heavier stocks in longer runs, will become a preferred packaging solution for the post-COVID world.
- Consumers' delight in the “unboxing experience” of e-commerce will remain even as they return to brick-and-mortar retailing.

FOOTNOTES

- 1 “How the packaging industry can navigate the coronavirus pandemic,” McKinsey & Company (April 2020)
- 2 “How COVID-19 Has Transformed Consumer Spending Habits,” J.P. Morgan Research (November 23, 2020)
- 3 “How the packaging industry can navigate the coronavirus pandemic,” McKinsey & Company (April 2020)
- 4 “Covid-19’s Impact on the Packaging Industry,” Plug and Play (February 9, 2021)
- 5 “Packaging Perspectives / 2020: Year-end review,” Mesirow (4Q2020)
- 6 Census Bureau of the U.S. Department of Commerce, Quarterly Retail E-Commerce Sales 1st Quarter 2021 (May 18, 2021), 2nd Quarter 2021 (August 19, 2021)
- 7 “How the packaging industry can navigate the coronavirus pandemic,” McKinsey & Company (April 2020)
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