Paper Mills – Pivoting to Meet Market Demands

If you thought the paper and pulp industry was going to disappear, think again. True, there has been a marked decline in traditional paper industries like newsprint. However, global trends are driving the need for new and innovative paper products, putting pressure on paper mills and corrugators to innovate and change.

4 Trends Driving Change In the Paper Industry

As a company that's served the paper, pulp, and corrugate industries for four decades, we're keenly aware of how the digital revolution has wreaked havoc on the market. And while there were substantial downturns in the late 1990s and early 2000s, paper mills are not disappearing—far from it. We would argue that the industry is going through the most substantial transformation it has seen in many decades. Consider these four statistics as proof:

1. In 2020, the global production of pulp and paper reached 490 million tons, up from 390 million tons in

2018.
2. Global shipping volume surpassed 100 billion parcels in 2020, up from 74 billion parcels in 2017 according to Pitney Bowes.
3. More than 15% of pulp and paper product sales in the United States will occur online, driven by higher demand for raw materials and corrugated boxes.
4. A goal of collecting and recycling 55% of all plastic packages has been set by the European Union and is expected to be reached by 2030. This will impact the pulp and paper industry, in a good way. North America and Asia do not have such governmental standards in place, however in the U.S. particularly, anti-plastic consumer sentiment is expected to drive legislative change.

How Paper Mills Will Pivot and Profit

While traditional markets like commercial print companies and newspapers have declined in recent years because of laser printing and online media, the opportunity for forest-products companies to innovate has never been greater. At ECHOtape, we see the following trends as opportunities for one of our core markets to pivot and profit.

Recyclable Products. At the forefront of this trend is recycling. The movement to reduce waste from plastic packaging is being driven by changing consumer preferences and for good reason. The massive islands of plastic waste floating in the Pacific Ocean have garnered extensive media attention over the past few years, heightening consumer awareness about the excessive plastic pollution both on land and sea. These preferences are spurring brand owners to replace plastic with renewable and recyclable alternatives and to address plastic in their sustainability goals.

As a result, **the demand by consumers for more sustainable packaging is driving the need for more and better-recycled products.** This has been a challenge in that some products contained coatings that were waterproof and problematic for recycling. Now there is a push to use protective coatings that are recyclable and it's a trend that will further develop in 2020 and beyond. The growing concern over the amount of packaging that could not be recycled has resulted in the involvement of the European Union in the area of plastic packaging. In North America, seven states in the U.S. have plastic bag legislation, and several cities have banned plastic drinking straws. However, given the nature of the global marketplace, European policies may put pressure on the U.S. to do more.

Either way, this "anti-plastic" sentiment is beneficial to the pulp and paper industry in that it encourages biodegradable alternatives. Simply put, the problems associated with plastic result in a tremendous number of opportunities for paper mills. The development of alternative products will continue well into the next decade, especially as it relates to the

banning of single-use plastic products.

Intelligent Packaging. It seems like just about everything is becoming a "smart" version of itself, so why not merge paper with new technology to create products that can do more than just wrap packages? This includes "smart packaging" containing built-in digital sensors. These products are grouped into two types: active packaging and intelligent packaging. Active packaging controls the environment of the product shipped, such as temperature. This could be important in shipping things like food products.

Digital "intelligent" packaging is becoming more important in two ways. First, more kinds of products are being shipped across the globe. Everything from cupcakes to fragile antiques. Being able to control the safe travel of these products and ensure their delivery is becoming more important.

Numbers back this up. U.S. demand for intelligent packaging is expected to grow 8 percent annually. The market was forecast to top $3.5 billion in 2017. The two largest markets for this type of packaging are food and beverages, due to new online food ordering and delivery, and pharmaceuticals that are increasing in demand by aging baby boomers.

The second way digital packaging is becoming more crucial is in overall safety. The threat of terrorism is a concern for government and corporation offices receiving packages daily. Having a digital way to identify contents and ensure safety, i.e. tamper-proof packaging, would be of high value. Also,

consider money: Embedding traceable chips within “smart” paper money raises the possibility of banks and governments guarding against counterfeiting and fraud.

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Increased Corrugate Demand. Thanks to the explosion of eCommerce, there is a higher demand for raw materials and corrugated boxes, as well as an increase in the number of products that are required immediately with very little lead time. There is also a shift toward more lightweight packaging at all levels, including luxury brands. One of the benefits of lightweight packaging is that it can support the growth of a business by cutting expenses. Lightweight packaging lowers pulp expenses, reduces CO2 emissions and slashes shipping costs, which are just some of the many benefits.

Hygiene Products Packaging. As the middle class grows in developing nations worldwide, so goes the demand for hygiene products such as toilet paper, wipes, tissues, and paper towels, to name a few. Manufacturers in the pulp and paper industry have exploited this growth in socioeconomic status by producing packaging that accommodates an increasing demand.

Advances in Food Packaging. Packaging for food seems to be in constant development. In recent years, there has been an increasing interest in packaging products that are resistant to grease, yet do not contain any fluorochemicals. Likewise, there is an increased interest in thermal packaging linked to the increase in food delivery services. Specifically, the explosion of third-party delivery service providers, such as

GrubHub and UberEats, has created a need for thermal packaging. As long as consumers expect to have hot food delivered to their home expeditiously, there will be a thriving thermal market in pulp and paper. There are many possibilities and opportunities in this area that will emerge as e-commerce continues to evolve.

Nanocellulose Disruption. Completely new revenue streams are being developed by traditional paper mills through the extraction of nano-materials from cellulose fibers that can be used to enhance the performance of products unrelated to the paper industry such as paints, coatings, cosmetics, adhesives and video screens. That soft, comfortable rayon shirt or sweater is likely the result of a process that regenerates wood fiber called dissolving pulp into high-quality fabrics used throughout the textile industry.

As with any shifting industry trends and remarkable innovations, we're paying close attention. Our tape is used in the production and converting processes of all kinds of paper. As the industry develops these new substrates and materials, they will be looking for new kinds of tape to get the coring, tabbing and splicing job done. We're ready to meet that challenge.

Trends to Watch in the Corrugate Market

Corrugated cardboard boxes are the backbone of the North American supply chain. In fact, more than 95 percent of all goods consumed in North America are packaged and transported in corrugated packaging, and close to 40 percent of all corrugated packaging produced annually is used to package food and beverages!

It’s a huge industry that we are proud to serve, which is exactly why we pay close attention to shifting patterns and innovations in the market. How will the corrugate industry pivot to thrive in a post-pandemic world? We’re betting these four trends will play a considerable role.

4 Corrugate Trends to Watch

According to The Future of Corrugated Packaging to 2023, the market is increasing, growing around 3.7% annually to reach $300 billion in 2023. Over the past five years, e-commerce alone has fueled demand for billions of more square feet of cardboard. But there are more compelling reasons to choose corrugate. Here are the trends we’re watching

Fit-to-Product (FtP). Global online sales are expected to be

over $5.5 trillion in 2023. This will have a profound impact on packaging demand, especially in the corrugated industry as it represents 80% of demand in e-commerce.

With the tremendous growth of e-commerce, where items ship individually, convertible packaging is a new area for innovation. Specifically, we're talking about **FtP** or box-on-demand systems, driven by the needs of dedicated e-commerce sellers such as Amazon and Staples. Everything from diapers to kitty litter can be packaged directly in corrugated boxes that are strong enough for shipping and can still attractively display the product on the store shelf, or be used as the serving container on the end customer's home shelf.

Smart Packaging. From QR codes and temperature sensors to image recognition and augmented reality, connected packaging will be at the forefront of packaging industry changes in 2020 and beyond. With over 81 percent of Americans owning some type of smartphone, smart packaging provides an instant connection between users and products, all with a few taps of a finger. Many brands are using this new technology to easily send consumers to recipes and articles, related products, and other branded information on products.

> *The U.S. corrugated packaging industry is a $35.2 billion manufacturing sector with 1,183 box plants operating in nearly 1,000 cities coast to coast.*

Sustainability & Recycling. Corrugated board is getting increasingly popular as sustainability becomes a critical

issue to more consumers. In fact, once used, corrugated boxes are not just recyclable; they *are* recycled. In 2018, 96% of all corrugated packaging was recovered for recycling in the U.S. and, on average, corrugated boxes contained 50% recycled content. That track record puts the corrugated industry miles ahead of other packaging recovery and reuse rates. Boxes are made to be remade, using fibers again and again across the industry to make new boxes. These capabilities mean there has been a boost in the popularity of corrugated protective formats over polymer-based options, like the expanded polystyrene (EPS) foams.

Look no further than your nearest golden arches for proof. McDonald's plans to use renewable, recycled, or certified sources for all packaging by 2025. Likewise, Dunkin' (Donuts) started eliminating polystyrene foam cups from its global supply chain in the spring of 2018, with a 2020 target date of completion. They are being replaced with double-walled paper cups. And most recently, Taco Bell announced it would ensure all of its packaging is recyclable or compostable by 2025.

Considering these shifts, and presumably more to come, folding carton shipments to retail carry out will be the fastest-growing end-use segment over the horizon, with growth estimated at around 1.7% between 2019 and 2023.

Food Packaging. Speaking of food, the demand for convenience foods is on the rise thanks to an increasing population and need-it-now lifestyle habits. As corrugated board packaging keeps moisture away from products and can withstand long

shipping times, corrugated packaging is increasingly being adopted by companies to offer better outcomes to customers, especially as a means of secondary or tertiary packaging. Paper-coated meat trays may soon be appearing in butcher shops and supermarkets, helping to increase the amount of recyclable food packaging. A six-pack of beverage cans can be held together with paperboard and designed with pre-cut holes for consumers to grab and carry with ease.

Further, innovations in the domain are expanding the scope of applications for corrugated cardboard packaging. Companies such as THIMM Group developed COOLandFREEZE, a box made up of corrugated cardboard for temperature-controlled shipping that enables the joint transport of frozen, chilled, and non-refrigerated products within one package! This innovative packaging ensures effective insulation and the constant refrigeration of fresh products over a period of at least 36 hours.

With brands and retailers looking to optimize product packaging for recycling, corrugate has become the obvious substrate of choice for innovative, sustainable, and practical solutions.

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The Impact Of COVID-19 on Corrugate

As the coronavirus outbreak has spread and its humanitarian impact has grown, industries that help provide for essential needs, such as getting food and required supplies safely to consumers and health professionals, are increasingly affected. This is a mixed bag for the corrugate industry. As demand for traditional retail, industrial, bulk, and transportation packaging plummeted, other segments—such as packaging for the food and pharmaceutical industries—continue to see robust demand. High growth in demand for corrugated packaging for e-commerce and grocery deliveries is also offsetting some demand lost elsewhere with industrial customers.

Realistically, all industries, including ours, are reeling from the initial shock and rapid spread of COVID-19. However, as we bring the pandemic under control, reduced household disposable income and weakened corporate balance sheets are expected to lower demand across most end-use segments for packaging, with the exception of healthcare and certain food categories.

According to McKinsey & Company, "…We expect certain consumer behaviors, such as stockpiling, will slow while others, such as grocery purchases via e-commerce, will accelerate. Key implications for packaging include non-grocery retail likely coming to a near halt, demand for low-cost private-label goods likely increasing, and demand for high-end packaging likely declining. The fight to defeat COVID-19 could also start to affect packaging choices, favoring packaging designs and substrates that demonstrably address hygiene and consumer-

safety concerns—for example, those that minimize the possibility of the virus's survival on the packaging surface." So what does that mean for corrugate in Q3, Q4, and even 20201? Companies should take steps to identify packaging categories that are likely to return to strong levels of demand and look for new pockets of growth potential with different packaging end uses and different substrates.

Pandemic aside, the opportunities for the corrugated industry to innovate and provide solutions to new packaging challenges are endless and will continue to drive the industry forward. As Dan Ahern, director of global innovation & design at Graphic Packaging International, says: "What can we do with paper-based packaging? Pretty much anything we want."

Paper & Tape in the Age of COVID-19

"Paper and packaging… how life unfolds."

The clever slogan from the Paper And Packaging Board certainly has new meaning in the wake of COVID-19. Here's how a predominantly North American industry is pivoting to meet demand.

Paper, Corrugate & Cardboard Rise to the Occasion

“Most people don’t think about the important role that packaging plays except during a crisis like this. Aside from protecting crucial healthcare supplies and facilitating shipment, the eCommerce we are all totally dependent on now wouldn’t be possible without sturdy, reliable packaging.” That’s according to Bill Drake, a well-respected industry analyst and President of B2B Industry Packaging.

For our company, packaging, and more specifically corrugate cardboard, is one of the main industries we serve. Indeed, the world’s leading corrugators and paper mills trust us with their adhesive application needs. Double-sided splicing tapes, flat-back tabbing tapes and polypropylene tear tapes are all used in the paper manufacturing process to make everything from shipping boxes to food containers to tissues.

“Corrugated cardboard packaging is the backbone of the American supply chain,” says Fibre Box Association President and CEO Dennis Colley. “As COVID-19 changes our daily lives, we want to assure consumers that the box industry is continuing to operate and to deliver needed packaging to our customers who supply grocery stores, pharmacies, doctor’s offices and hospitals with food and medical supplies to keep us all healthy and safe.”

As manufacturers of corrugated cardboard boxes work to keep transport packaging, so are we. Risa Edelstein, VP Marketing, says, “We’re receiving a deluge of communication from our suppliers making sure that we know we are part of essential services, and we are rapidly pivoting to meet those needs. That includes implementing new protocols for our distribution center and warehouse as well as managing an increase in production and delivery. Our reps always said that tape is not important until you do not have it because it could shut an entire mill down!”

However, like other small businesses, ECHOtape has transitioned many of its non-warehouse teams to work from home. “We have a responsibility to meet our customers’ needs, but our first priority was to ensure the safety and health of our employees. That said, we are dedicated to continuing to operate under the guidelines of the U.S. Center for Disease Control and Prevention (CDC), Public Health Agency of *Canada,* and the Occupational Safety and Health Administration (OSHA) to ensure products continue to flow to market.”

That’s not been an easy task considering ECHOtape’s uniquely Canadian and U.S. business model. “It’s a challenge for most businesses to keeping track of the daily changes affecting business continuity, let alone 50 states and 10 Canadian Provinces, each with different regulations. And yet our team has been able to pivot and redirect itself, not missing a beat. What a testament to ECHOtape’s incredible employees!” says Edelstein.

To Disinfect or Not? Handling Packaging During COVID-19

Obviously, the packages you order on the Internet or local delivery services aren't exactly sterile. They've each likely been touched by multiple people—the person who put your food or item in the package, the person who loaded it onto a truck, the person who hands you your bag or box, and so on. How careful should you be?

Although The CDC's advice on protecting yourself during COVID-19 does not include disinfecting packages, its general advice stands: Wash your hands frequently and avoid close contact with people. However, erring on the side of caution isn't wrong. Consider disposing outer packaging outside of your home and wash your hands immediately after handling.

When it comes to food, the same advice stands. Donald W Schaffner is a food microbiologist and professor at Rutgers University. He told CNN: "Right now there's no evidence that [the virus is] spread through food. There's no evidence that it's spread through food packaging. That doesn't mean that we might not learn new evidence tomorrow that would change our thoughts on that, but right now that's what we believe," Schaffner said.

That said, there's no harm in throwing away nonessential outer

packaging (cereal boxes, meat trays) or in wiping down cans and jars with an approved disinfectant if it puts your mind at ease. Alternatively, you could set aside non-perishable groceries for a few days before using them, since the information available now suggests that the virus can't be detected on plastic or stainless steel surfaces for more than three days.

Aside from washing your hands with soap and water, before beginning any food preparation you should sanitize sinks and counters using one of the approved disinfectants.

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What's Next? Toilet Paper & Demand Shock

Toilet paper has become the poster child of pandemic, and no one is more surprised than the tissue paper industry itself.

Companies that help supply these everyday paper products are rapidly pivoting to meet consumer demand. But when will shelves be restocked? No one seems to know – not the stores, not the suppliers, and certainly consumers.

Here's why: Most paper mills already operate manufacturing facilities 24 hours, 7 days a week. It's not like there's an idle machine that can be cranked up to increase production,

let alone while adhering to stricter CDC and Canadian Health guidelines.

The American Forest & Paper Association, an industry group representing paper product makers, noted the industry is working hard to respond to the sudden spike in demand.

“Rest assured, tissue products continue to be produced and shipped – just as they are 52 weeks each year as part of a global market,” AF&PA’s CEO Heidi Brock said in a statement.

Georgia Pacific, the maker of Angel Soft and Quilted Northern, told CNN that toilet paper orders from retailers nearly doubled. The company managed to ship out 20% more than its normal capacity. Meanwhile, Procter & Gamble transitioned production to prioritize their bestselling sizes to maximize the amount of product shipped to retailers. Other suppliers are shifting manufacturing away from similar non-essential products (napkins, for example) to make more room for toilet paper production.

However, there’s another big concern looming: demand shock. Consumers who stockpile toilet paper now could eventually hurt manufacturers’ sales down the road, leaving a surplus of product to strain the system yet again.

It’s a concern we share at ECHOtape. Edelstein says, “Sales for adhesive products in a variety of industries, not just corrugate or paper mills, have increased. An uptick we are grateful for in an economy where small business are quickly shuttering. However, as we pass through the peak of pandemic,

and life eventually returns to normal, will orders dry up? We're creating a contingency plan, but like the rest of the U.S. and Canada, only time will tell. We're all in this together."

Read more about ECHOtape's response to COVID-19 here.