Disruption and Resolution:

The Future of Retail

Whitepaper presentation by

Rohrer & KANTAR

DISRUPTION AND RESOLUTION: THE FUTURE OF RETAIL

Presented by Rohrer and KANTAR

- Overview
- Navigating the current and future retail landscape into 2021
- Winning with omnichannel
- Implications for near-term and future for manufacturers and packaging companies
- Conclusion

OVERVIEW

January 2020. The retail industry was already struggling with the disruptive forces of the digital age. Then the pandemic hit with suppliers and retailers facing never-before-seen challenges. By spring, new dynamics were in play that dictated consumer demand, shopping behaviors and the entire supply chain. The truth is that COVID-19 was a catalyst to industry transformation that began years ago. And while many despaired, many others saw opportunity to grow and innovate.
Rohrer was one of the latter.

Rohrer partnered with Kantar, a global research agency to develop a cutting-edge white paper entitled, "Disruption and Resolution: The Future of Retail."

This comprehensive analysis takes a broader perspective from manufacturers, suppliers, vendors, retailers and logistics of what's happening in the world that is impacting retail today and tomorrow. In this year alone, the housing market has had a totally unpredicted - yet explosive growth. Work habits have changed drastically. And the online world skipped ahead to a 2030 version of itself.

Within this volatile landscape, the white paper focuses on three critical topics relevant to suppliers and retailers:

- **Navigating the current and future retail landscape into 2021:** Disasters are becoming a primary variable
- **Winning with omnichannel:** A review of core retailers highlights how each retailer uses ecommerce as an extension of its overarching growth strategy
- **Implications for near-term and future for manufacturers and packaging companies:** Packaging has two concerns: Exterior hygiene and in-depth identification of route to market. In the year of COVID-19, what are the most effective sanitation materials, protocols and communication strategies?

1. NAVIGATING THE CURRENT AND FUTURE RETAIL LANDSCAPE INTO 2021.

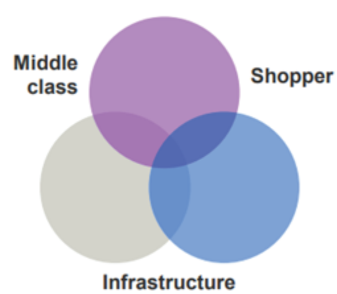
It's been said that to look ahead, you have to look back. In 2008, we found ourselves in the Great Recession – globally. Back then, Kantar developed a model to help us better understand where we were, and how best to plan for the future.

To help plan markets and their development, we created a dynamic mode in 2008

The Market Evolution Model was for defining current and future states for planning

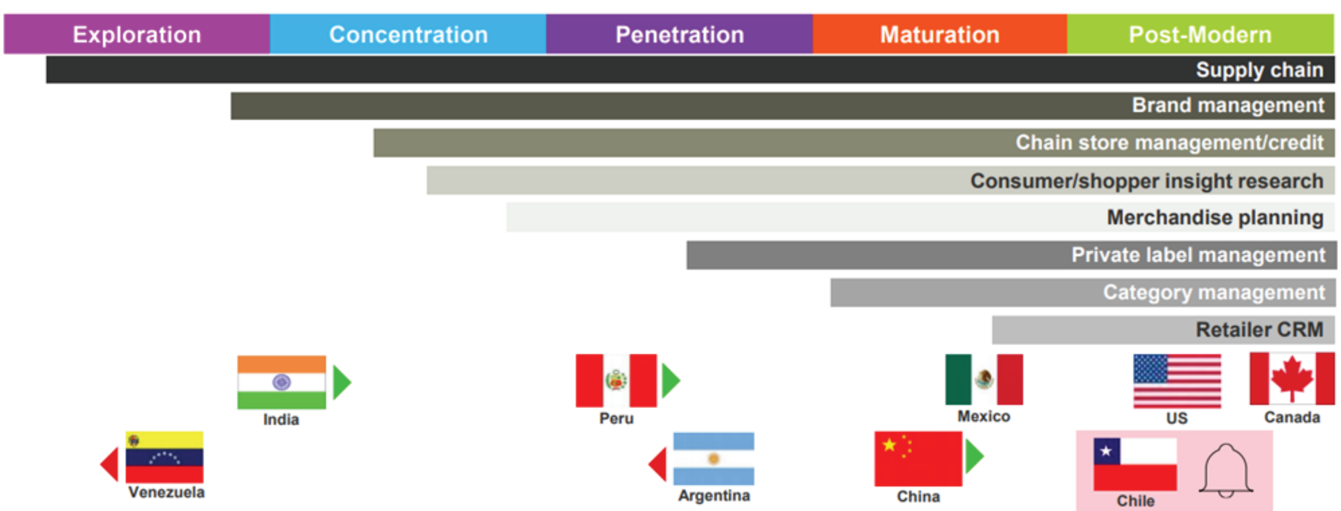
Consumer	Retailing	Disruption
Why do consumers shift their spending away from the traditional vendor environment to a chain-based environment? • Price • Product availability • Product quality • Trip aggregation • Disposable income • Demographic shifts • Shopping experience • Middle-class thinking	**What conditions facilitate modern trade consolidation/ concentration?** • Consumers enabled • Wholesale structures • Geography and population density • Access to capital • Competitive information systems • Supply chain • Omnichannel developments	**What external factors disrupt the pace/stage of development?** • Taxation/duties • Election cycles • Organized interests • Labor markets • Economy • Legislation • Leadership

These variables do not exist in isolation; rather, the tension among them is constant.



Understanding the stages meant planning ahead for changes in process

Each complex process change is an opportunity for new growth for first movers



Kantar used this model to assess where countries were within a larger continuum of retail capabilities. Each complex process change was a growth opportunity for first movers.

What would happen if countries suddenly hit a major roadblock and started moving backwards? That's where we are right now with many countries moving backward through this continuum of retail capabilities. In 2020, that's why 'disasters' added another variable which is now a standard part of Kantar's model.

Consumer	Retailing	Disruption	Disasters
Why do consumers shift their spending away from the traditional vendor environment to a chain-based environment?	**What conditions facilitate modern trade consolidation/ concentration?**	**What external factors disrupt the pace/stage of development?**	**What disasters become predictable forms (if not timing) of major disruptions?**
• Price	• Consumers enabled	• Taxation/duties	• Disease
• Product availability	• Wholesale structures	• Election cycles	• Global climate change
• Product quality	• Geography and population density	• Organized interests	• Invasive species
• Trip aggregation	• Access to capital	• Labor markets	• Fires and floods
• Disposable income	• Competitive information systems	• Economy	• Volcanoes and earthquakes
• Demographic shifts	• Supply chain	• Legislation	• Hurricanes and typhoons
• Shopping experience	• Omnichannel developments	• Leadership	• Solar flares
• Middle-class thinking		• Financial Infrastructure	• War
		• War/civil unrest	

What disasters become predictable forms (if not timing) of major disruptions? In 2020, we have new modeling needs, but also a fourth dynamic, disruption, to contend with.

- Disease
- Global climate change
- Invasive species
- Fires and floods
- Volcanoes and earthquakes
- Hurricanes and typhoons
- Solar flares
- War

ALTHOUGH COVID-19 IS AN OBVIOUS GLOBAL DISRUPTION, IT'S NOT THE ONLY FACTOR.

- Government leadership and public trust have shown to be even greater disrupters, even though they aren't classified as a disaster.

- Aside from disease, the major distortion is government infusions of funds. It's getting harder to define good management vs. just masses of new money. Source: Kantar, Federal Reserve Bank of St. Louis, CNBC

- The acceleration of climate anomalies is a retail planning concern: Changes in biomass, average temperatures, violent storms, and melting ice are clearly creating disruptions that need to be accounted for in planning.

- Complexity: Disasters have impact on integrated economies: The more interconnected and densely populated the area, the greater the damage to retail. Retail continues to be an "essential service", but the increasing scope and severity of disasters put more stress on alternative and external assistance each year. Source: USGS.org, Reuters, Kantar

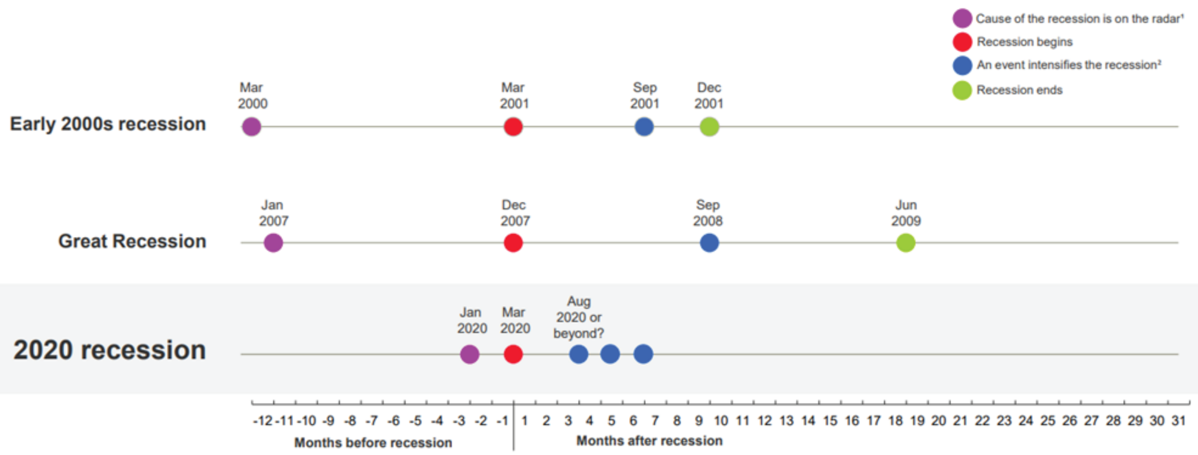
- Adding disasters to the continuum forces operational changes to the fore and shopper concerns weaken. This also spawns some big questions:

  - What retail channels fail?
  - What happens if the shoppers drop out of the middle class?
  - How much distortion do governments create with financial support for shopper support and retailers?

We need to do better planning in terms of how we manufacture and market products – and then deal with the disruptions that could impact the supply chain. The pandemic has made it obvious that the supply chain has become absolutely paramount in terms of planning. When you add disasters into the model, you start looking at which markets to invest in. For example, China opened up its banking and financial system in ways nobody expected. They anticipate being the one place where the GDP, inflation and other variables would cause financial services to come into the market.

Canada experienced the same brutal pandemic, but they are coming through it due to a very stable government and financial institutions associated with it. Canada all of a sudden becomes a much more attractive market today than a year ago. For the U.S, we got over the initial impact of the pandemic that caused the recession, but our recovery will take time. And most noteworthy, it's the central banks, not government bailouts, that are driving the recession response. They are pumping huge amounts of liquidity into the system.

2020 crisis has arrived much faster than the previous two recessions



[1] The cause of the recession is on the radar, but threat is unclear: Dot-com bubble starts to deflate (March 2000), home prices decrease year to year (January 2007), new virus reported in China (January 2020).
[2] Recession intensifies due to an unexpected event related or unrelated to the initial cause of the recession: September 11th terrorist attack, Lehman Brothers collapse (September 2008), possible banking crisis (August 2020-?).

AT-A-GLANCE: RETAIL AND THE RECESSION

- Retailers are having serious issues this year (supply chain, sanitation measures, customer engagement) despite being massively successful in many cases. Except for mall department stores, most others are having a very profitable year to date. The reason? There's no place to spend discretionary money such as vacations, movie theater, restaurants etc.
- There is an uptick of changes in SKU proliferation as well as forecast volatility.
- Home sales have recovered most of their lost ground. A historically low inventory and record-low interest rates kept buyers hungry.
- Home improvement sales have greatly improved in the post-COVID time period, such as Home Depot and Lowe's. Being designated essential retailers during the shutdown has helped; adjusting to staying at home has also meant more household spending on consumables and DIY purchases. Source: Kantar, National Association of Realtors, US Department of Commerce.
- Even in the middle of the pandemic, CVS is still seeing a drop in pharmacy sales due to shoppers' reluctance to seek non-COVID medical help.
- Inventory and SKU reduction continued from the first quarter for US retailers. Non-US markets greatly reduced capital investments as they canceled store construction and remodel plans, However, overall ecommerce capacities are an area of increased spend.
- New product lines of tracking, games, and toys show inventory issues. Game manufacturers shipped a full year out in March and have had issues in recovering due to continued demand.
- Most retailers continue to dramatically increase cash-on-hand. Even Costco and Walmart, with a comparatively lower increase, are holding historically high levels of cash

Overall, retailers that were opened performed remarkable well in Q2. But Performance was tempered by changes in inventory, capital investment, and cash-on-hand.

	Retailers	Revenue			Earning before Taxes			Inventory			Capital Investment			Cash On Hand		
			Average	9.9%		Average	27.8%		Average	-1.7%		Average	-24.6%		Average	96.2%
		2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Aug	Walmart	130,377	137,742	5.6%	4,913	8,646	76.0%	44,134	41,084	-6.9%	2,666	1,817	-31.8%	9,320	16,954	81.9%
Aug	Target	18,422	22,975	24.7%	1,217	2,189	79.9%	9,122	8,876	-2.7%	1,394	1,414	1.4%	1,656	7,284	339.9%
June	Kroger	37,251	41,549	11.5%	989	1,585	60.3%	6,707	6,297	-6.1%	876	755	-13.8%	409	2,726	566.5%
June	Weis Markets	888	1,098	23.6%	27	56	109.7%	282	278	-1.4%	20	25	25.0%	52	109	109.6%
June	Sprouts	1,416	1,643	16.0%	45	89	96.9%	276	255	-7.5%	29	1	-96.5%	60	330	448.4%
June	Tractor Supply	2,354	3,176	34.9%	283	439	55.1%	1,733	1,689	-2.6%	84	87	3.7%	104	1,206	1059.9%
Aug	Lowes	20,992	27,302	30.1%	2,212	3,738	69.0%	13,179	13,831	4.9%	526	710	35.0%	1,796	11,641	548.2%
Aug	Home Depot	30,839	38,053	23.4%	4,613	5,730	24.2%	14,531	13,498	-7.1%	1,246	1,032	-17.2%	2,547	14,139	455.1%
May	Dollar General	6,623	8,448	27.6%	486	836	72.0%	4,110	4,107	-0.1%	145	195	34.5%	271	2,674	886.3%
June	CVS	63,341	63,431	0.1%	2,591	3,960	52.8%	17,516	16,519	-5.7%	573	448	-21.8%	6,338	15,145	139.0%
May	Costco	34,740	37,266	7.3%	1,215	1,277	5.1%	11,304	11,395	0.8%	545	698	28.1%	7,013	10,826	54.4%
	Average US			10.2%			53.5%			-4.1%			-11.4%			180.8%
June	Loblaws (CDN)	11,133	11,957	7.4%	1,175	1,016	-13.6%	4,593	4,689	2.1%	209	199	-4.8%	333	334	0.3%
June	Sobeys (CDN)	6,220	7,012	12.7%	300	528	75.9%	1,459	1,489	2.1%	622	550	-11.6%	283	595	110.1%
Aug	Metro Inc. (CDN)	5,229	5,835	11.6%	304	359	18.3%	1,089	1,224	12.4%	115	35	-69.6%	263	367	39.2%
May	Dollarama (CDN)	828	845	2.0%	143	123	-14.3%	577	608	5.3%	181	141	-22.2%	90	523	477.7%
	Average Canada			9.6%			5.4%			3.8%			-17.9%			87.5%
June	Walmart Mexico (MXP)	153,149	167,875	9.6%	11,958	11,183	-6.5%	60,308	64,642	7.2%	7,676	5,435	-29.2%	26,603	30805	15.8%
June	Comercial Mexicana	5,403	7,064	30.7%	501	720	43.7%	3,259	3,551	9.0%	670	288	-57.0%	2,194	3300	50.4%
June	Soriana (MXP)	39,096	39,637	1.4%	1,204	1,251	3.9%	35,059	31,684	-9.6%	276	137	-50.4%	2,795	1,993	-28.7%
June	Chedraui (MXP)	31,586	36,409	15.3%	1,484	1,841	24.1%	12,461	11,878	-4.7%	6,413	4,336	-32.4%	1,693	4,251	151.1%
	Average Mexico			9.5%			-1.0%			0.6%			-32.2%			21.2%

Revenue increased for most of these retailers, allowing them to post the best quarter in their history.

Earnings exploded as the margin mix of products being purchased changed. The reductions in promoted products either generally or in loyalty programs effectively caused a price hike. So did the reduction of lower-margin SKUs. For most retailers, **labor** was flat, which effectively raised earnings even more than expected.

US retailers dropped inventory as they came under pressure to shift investments from product on hand to the flexibility of cash on hand.

CASH-ON-HAND CONFIDENTIAL

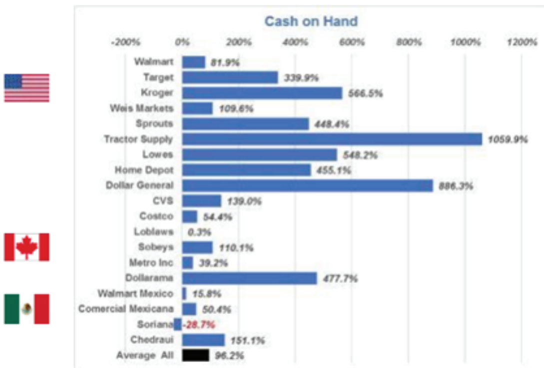
When you go into a recession, you become a balance/asset/cash sheet retailer – and the liquidity thereof. If you stayed opened, you had the best quarter ever. But where revenues are off by 10, 20, 30% of the operating margin, the money that is the result of operations has gone up 60, 70%. A lot of this is due to removing promotions or getting slower-moving items off the shelves. But what about keeping the shelves stocked – a very real 4th quarter issue. Some retailers can't get product out of China – more correctly, off the boat. Retailers have very real concerns about securing inventory going into the 4th quarter. And capital investment? It's going into IT to enable or enhance omnichannel.

And speaking of cash, the Fed churned a massive amount of money into retail this summer which was great. But…and here's the caveat - it's a one-off. This is for the short term only. The Fed is a massive disruption, much more so than Congress, particularly in business. They have pumped liquidity into companies that you would expect to be going out of business - but are actually doing reasonably well. They are known as 'zombie' companies. Although few people watch what the Fed is doing, now's the time to take notice. What are their targets? At some point, they have to start backing out. Also, of note, retailers are backing out of inventory when they can, and when they accidentally do it because of the loss of orders, this is all shifting to cash-on-hand.

At some point that cash-on-hand number is going to switch and switch very quickly. That's the number everyone should monitor. When cash-on-hand numbers start shifting, that signals the investment is going back into the stores, sites, and inventory. That will be our indicator of recovery, but the timing when that will happen is uncertain at this point.

It's important to note that retailers are extremely resistant to taking on new ideas, products and processes. They're looking at anything that impacts their cash-on-hand as an investment that takes away from capital as being a risk. This is a key factor if you are approaching retailers with investment opportunities such as an innovative approach to inventory, product line expansions or merchandising. They will see it as risk – and not opportunity

But the bottom line for almost every retailer is, I don't trust the future. I want to have cash-on-hand for whatever happens. That will dictate when they start reinvesting back into stores, inventory, packaging and merchandising.



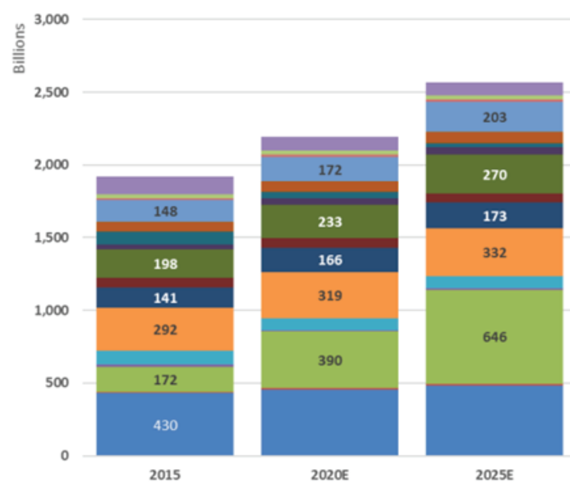
Most retailers are at historic levels of net margin so they can start building cash on hand from a high point. A line-by-line reading of each cash flow statement shows retailers moving to cut investments in capital improvements, inventory on hand, and stock buybacks. Accounts payable shows slowing outward payments to vendors.

Retailers	Q1 Cash On Hand			Q2 Cash On Hand		
	2019	2020	% change	2019	2020	% change
Walmart	9,292	14,985	61.3%	9,320	16,954	81.9%
Target	1,173	4,566	289.3%	1,656	7,284	339.9%
Kroger	409	2,726	566.5%			
Weis Markets	32	158	397.9%	52	109	109.6%
Sprouts	21	249	400.0%	60	330	448.4%
Tractor Supply	102	462	351.6%	104	1,206	1059.9%
Lowes	2,973	5,955	100.3%	1,796	11,641	548.2%
Home Depot	1,882	8,696	362.1%	2,547	14,139	455.1%
Dollar General	271	2,674	886.3%			
CVS	6,168	10,337	67.6%	6,338	15,145	139.0%
Costco	7,013	10,826	54.4%			
Loblaws (CDN)	929	2184	135.1%	333	334	0.3%
Walmart Mexcio (MXP)	29,512	37891	28.4%	26,603	30805	15.8%
Comerci Mexicana	2,686	2865	6.7%	2,194	3300	50.4%
Soriana (MXP)	2,634	2,250	-14.6%	2,795	1,993	-28.7%
Chedraui (MXP)	1,558	3158	102.7%	1,693	4,251	151.1%
Total percent change			65.0%			93.7%

The trend quarter to quarter has been to continue increasing cash on hand as the full extent of the pandemic and recession as a future distortion to business is made clear. As of the time of this report, some companies had not reported their Q2 results that reflect the challenges of 2020.

Channel Sales Forecasted into 2025 is still fluid - Too many variables within 2020 to date, but trends are shifting

Channel	2015	2020E	2025E	2015 - 2020	2020-2025
Apparel	122,842,196,721	93,820,711,204	91,894,396,156	-5.2%	-0.4%
Auto	24,066,862,374	27,182,075,492	29,821,003,330	2.5%	1.9%
Beauty	15,458,974,687	16,560,265,825	15,773,193,381	1.4%	-1.0%
Club	148,225,877,901	172,360,890,440	202,728,969,124	3.1%	3.3%
Convenience	64,388,034,848	71,903,092,063	78,591,820,171	2.2%	1.8%
Department	90,278,972,250	42,906,287,732	28,015,518,994	-13.8%	-8.2%
Dollar Stores	33,689,675,838	42,641,223,392	52,558,201,130	4.8%	4.3%
Drug	197,953,531,531	232,870,846,592	269,556,908,065	3.3%	3.0%
Electronics	65,695,705,063	64,040,098,615	61,497,680,238	-0.5%	-0.8%
Home Improvement	141,345,601,072	165,918,666,575	172,970,594,287	3.3%	0.8%
Hypermart	292,172,144,310	319,289,370,844	331,856,466,951	1.8%	0.8%
Mass	98,412,454,130	81,985,259,352	86,104,784,640	-3.6%	1.0%
Office Supply	12,238,626,983	8,312,032,393	6,554,745,404	-7.4%	-4.6%
Online	172,202,223,172	390,342,277,420	646,178,003,667	17.8%	10.6%
Pet	10,192,628,392	11,557,770,568	11,653,760,975	2.5%	0.2%
Supermarket	429,789,571,562	452,998,471,013	484,092,071,323	1.1%	1.3%
	1,918,953,080,836	**2,194,689,339,520**	**2,569,848,117,835**	2.7%	3.2%



SUPPLIER IMPLICATIONS

Suppliers must be very aware of how quickly retailers need to respond to the global pressures of COVID-19 and a major recession

Retailers are having serious issues planning for all the changes occurring in 2020 and into 2021 with the pandemic, recession, and social disruptions. Government and Federal Reserve actions may help, but they are equally disruptive in the short term. Keep a close eye on what the Fed is doing in terms of where they are pumping in large amounts of cash. Working with retailers will mean far less long-term planning and far more discussion about capabilities that will enable them to change and adjust with little notice.

Retailers are shifting away from inventory and moving to increase cash-on-hand at historic rates. If they cannot plan, then they need to have as much flexibility as possible to react quickly to unexpected events. Any vendor partner must expect SKU reductions, expanded payment terms, and resistance to new items. Invest more in innovation that you can position to retailers as adding quick value to their bottom line along with creating new areas of shopper demand.

Retailers are viewing anything that locks up capital as an issue. That includes not only inventory but also new stores, remodels, and major capability investments aside from ecommerce. Assess the opportunity to increase support of retailers' ecommerce and fulfillment needs along with a review of packaging optimization for fulfillment and size of relevant items that might be impacted.

2. WIN WITH OMNICHANNEL

So how exactly do we win with omnichannel? First, let's all agree on its definition: it's a sales strategy for using all of your communication channels to create a single unified customer experience. This includes touch points from bricks and mortar, to digital, to POS. And as stated earlier, omni channel transformed into its 2030 self. So how long it will stay? Do you invest in it? Absolutely. Do you over-invest into it? No. This is where we need to exercise caution as to overall market performance moving into 2021. Kantar predicts about half of whatever increase occurs this year will show up next year and probably half of that the following year. There are various factors cut in not the least which is cost. As an interesting aside, one retailer told Kantar 90% of their assets were in real estate.

We saw an unexpected yet massive growth in omnichannel since spring. Nobody did well in the beginning, but June saw retailers back on their feet. It's been mainly frictionless since then, however, apps have been problematic in both the US and Canada. Typically, people have two shopping apps on their phone, Amazon plus one other. Apps have become an absolutely critical part of the shopper journey. Also noteworthy are retailer engagement apps; they have become an area of new investment and a focal point of how that has evolved in context of the pandemic

One of the key elements for online – specifically non pure-play online – is expensive: taking all the cost out of online and omnichannel, doing deliveries, handling it in the store, and everything else that is critical in terms of where this goes forward. Retailers will continue to look at additional cost versus demand and try to decide whether they want to force more of those deliveries back into the stores or pickup, or how they want to change their promotional program. The jury's out, but it's quite clear that from a financial perspective, it's not done yet and it needs to be attended as we're going forward.

From a customer’s perspective, we ask two questions:

How easy is it to make a purchase?

- The level of difficulty required to purchase products through that retailer
- Eliminating wasted or unmeaningful time during the shopping process
- Creating/partnering with an easy-to-use platform so shoppers can find their products

What was the quality of that experience?

- The assortment strategy working across channels and providing a seamless experience throughout
- Expanding time in a meaningful way during the shopping trip
- Enhancing the experience and making it less stressful for shoppers to purchase and pick up their products

In other words, it’s all about fluidity versus friction. And those are key when you start looking at different retailers and their respective omnichannel strategies. Most importantly, the ones that invested early in omnichannel five or six years ago are doing very well, and the ones catching up this year are struggling.

Omnichannel Scorecard
A review of core retailers highlights how each retailer uses ecommerce as an extension of its overarching growth strategy

WALMART: THE OMNICHANNEL POWERHOUSE

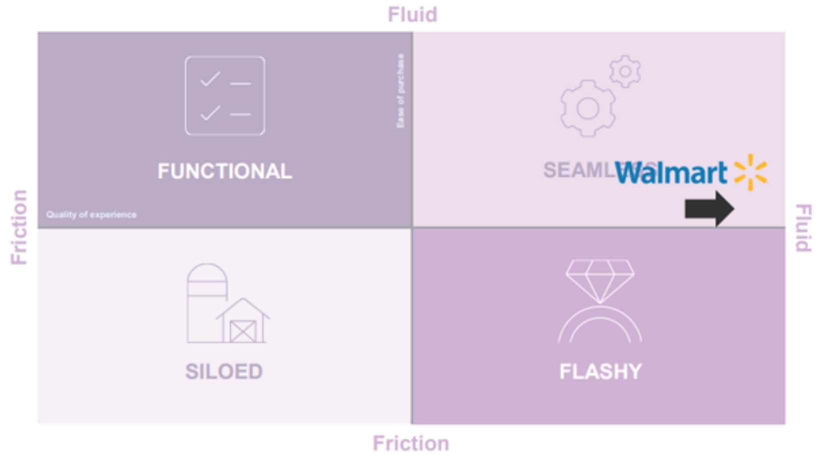
New advancements of single-app experience, Express Delivery launch, and consolidated merchant teams create positive momentum for Walmart

Ease of Purchase

- Walmart has invested heavily in omnichannel grocery to capitalize on its expertise and strength in grocery.
- Walmart is pushing out its widespread click-and-collect capabilities to more stores.
- While it partners with several third-party fulfillment services, Walmart continues to improve its own platforms.

Quality of Experience

- The continued rollout of fulfillment options accounts for the need for speed and availability of the entire store assortment.
- Apps and the website are fluid and work interchangeably. While Walmart Grocery and Walmart.com experiences are relatively smooth, in-store pickup for Walmart.com still occurs separately from Online Grocery pickups and deliveries.
- The retailer is active on social media; advertisements and branding showcase new ways for shoppers to purchase groceries.



Another smart Walmart move is in Mexico and Latin America. They are rolling out a wi-fi package for their low-income customers who had difficulty shopping online. They're thinking: How do I enable them to operate in this omnichannel space? This is quite clearly a strategic investment move cross border.

However, during the first two quarters Walmart experienced friction in streamlining their logistics and supply chain inventory systems. But their 40+ years of data analytics investment paid off towards managing their logistical complexity when they needed it most.

And today, the Walmart Express Delivery is a shining example of how they integrated the shopper experience with back-end AI. The current mobile app is perfectly suited for a frictionless shopping experience. Customers can drive up and pick up their online orders without entering the store. Presently, the in-store experience still has some difficulties, but not major ones.

Walmart is planning and preparing for the future of retail

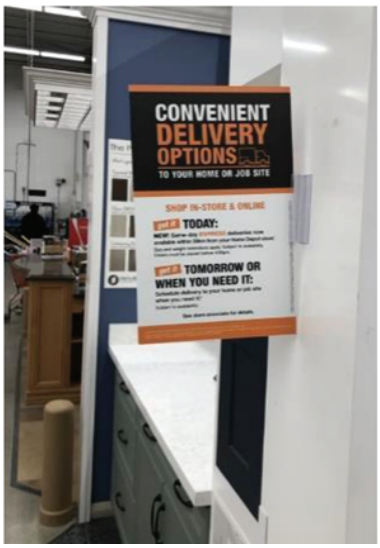
Walmart is basing its evolution on forward thinking and innovation to meet future shopper needs

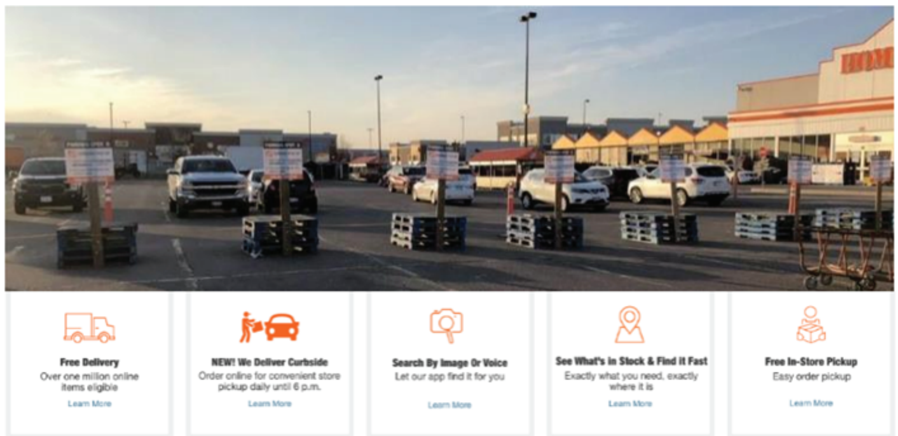
Data and analytics	Mobile capabilities	Brands and categories	In-store experience	Services and convenience	Automated assistance

HOME DEPOT

Home improvement saw massive growth this year, due to the lockdown and people with more time devoted to DIY projects. Home Depot in particular was well prepared because they had already mastered online and omnichannel integration with how-to videos and voice apps. So, when the pandemic hit, they transformed their parking lots into efficient, contactless pick-up zones. Lowe's also did well using the same strategies, but Home Depot led the way.

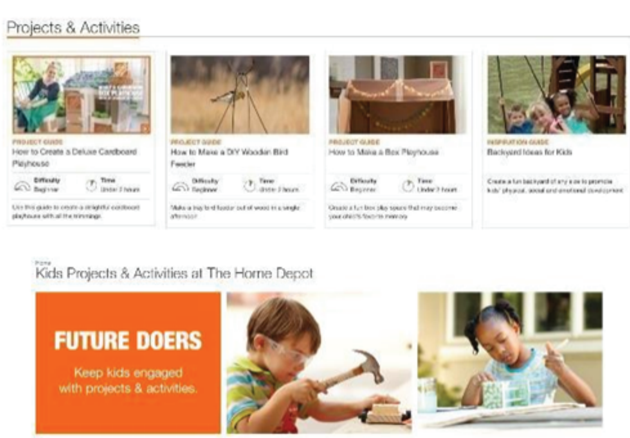
Home Depot demonstrates adaptability and its ability to scale omnichannel capabilities in the face of the COVID-19 crisis



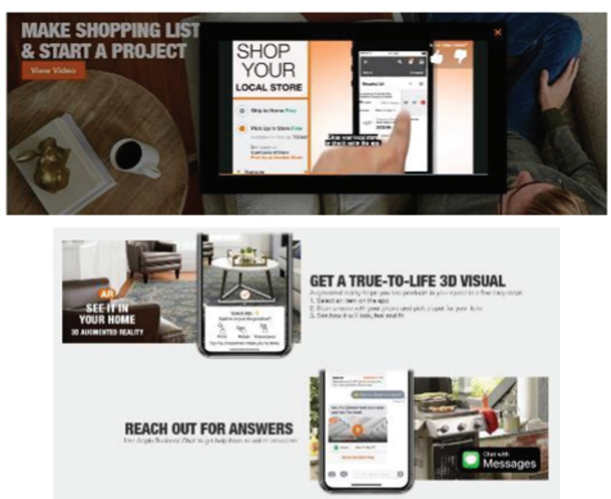


The retailer quickly expanded its curbside pickup by reserving parking spots for click-and-collect orders and promoted home delivery options inside the store.

Digital touchpoints offer project ideas and a 3D shopping experience.



Free digital tutorials are offered for all skill levels.



SUPPLIER INDICATIONS:

COVID-19 changed the rules and accelerated trends to omnichannel and shopper fulfillment. But those that have been successful made the shift and investments well before 2019.

Retailers initially had issues with the speed of growth on omnichannel demands from the pandemic. This impacted in-store draw and fulfillment harder. As of 2020, the in-store omnichannel model had done far better and become flexible. The dedicated fulfillment center model over time has had to shift as well to differing fulfilment cost models.

Apps have moved from being additional tools to serving as a focused buying platform. The pandemic spurred the use of apps for engaging retailers exponentially. Again, those that invested prior have an advantage, but vendors far less so. Managing the app experience via the retailer has more demands than regular sites. It is decidedly more complex with marketplaces which create third-party conflicts to products carried and fulfillment means.

Online sales and fulfillment are more expensive than in-store but competes against non-retail models in Amazon. How long retailers will keep to online in its current form is based on longer-term profitability. So far it works due to the lack of price sensitivity or use of coupon reductions along with fees. At some point there will be far more pressure on vendors to find solutions to the overall business issues being created.

3. IMPLICATIONS FOR NEAR-TERM AND FUTURE FOR MANUFACTURERS AND PACKAGING COMPANIES

There's been a lot of fluctuation from the CDC about the spread of COVID-19 - from surfaces, to safe distancing to aerosolization. Shoppers are convinced that sanitation equals safety. And that's really important as we go forward. Now more than ever, retailers and packaging manufacturers need to reassure shoppers that the product and the packaging it came in – are sanitized.

The length of viral infectivity varies from different surfaces be it glass, cardboard, metal or plastic. And we also know that viruses can be transmitted through the air. Since the pandemic, stores have had to dramatically change their sanitization agents and protocols. Wiping down the store isn’t enough. Retailers are now using potent, agricultural grade aerosol and liquid sanitizers. How this works in the store is how this works in the DC fulfillment centers. Besides the widespread use of hand sanitizers, we’re seeing a major increase in the use of active aerosol agents sprayed in the bigger box stores, but minimal use in smaller ones. Daily wipe-downs continue, and it still presents a major labor issue.

Beyond wiping down the store: Aerosol and liquid sanitizers

Agricultural suppliers have already crossed over to shopper and retail use; custodial supply stores are also moving from pro sales to B2C advertising and engagement

Planning | Evaluating | **In Use**

Broad spectrum disinfectant is widely used in farming, especially for livestock operations to control a wide range of health issues. All are applicable to stores and DC use, but using them safely on people takes skill. At the moment, it is the quickest way to impose hygiene on stores and is easily applied with sprays and fluid.

Walmart Pet Supply: Virkon S powder is a broad spectrum veterinary disinfectant that is effective when in solution at low temperatures, in hard water on porous surfaces, and in the presence of organic matter. It starts killing bacteria in 5 minutes, and kills tough-to-kill parvovirus in 10 minutes or less. Virkon S is recognized by industry and governments worldwide as a disinfectant of choice for livestock disease prevention and control.

Tractor Supply Company: BioSentry BioPhene Spray Disinfectant is an EPA-registered aerosol disinfectant that effectively controls the common viruses and bacteria that challenge the agriculture industry. In addition to controlling viruses, bacteria, and fungi, BioPhene Spray Disinfectant also eliminates odor and controls mold and mildew. BioPhene Spray Disinfectant can be used in vehicles, on footwear, or anywhere quick disinfection is needed.

It's far easier to communicate to a customer that surfaces are safe, than that of the store's air. Retailers have been investing into robots in the last five years for monitoring inventory. Robot manufacturers are expanding their functionality into sanitation machines. Investing in in-store robots has had an unexpected advantage: It produces data for public health departments to document new standards of compliance while freeing up critical labor from cleaning.

Walmart has invested in:

- **1,500 new autonomous floor cleaners (AKA "Auto-C"),** which can consistently inspect and clean the full store
- **300 additional shelf scanners (AKA "Auto-S")** that scan items on store shelves to help ensure availability, correct shelf location, and price accuracy

PACKAGING CONCERNS AND INNOVATIONS

- Keeping product safe for use is the basis of consumer-packaged goods and branding. The emphasis has been, and continues to be, on packaging the product so the interior preserves the value of the item
- The exterior continues to be a weak spot for material stress, breakage, and simply getting dirty from being handled. The ideal is a surface that is antimicrobial, can resist smears and dirt, but still be easily readable to the shopper.
- Sherwin-Williams Paint Shield® Microbicidal Paint came out commercially in 2015 as the first EPA-registered paint that kills more than 99.9% of bacteria, including Staphylococcus aureus, MRSA, E.coli, VRE, and Enterobacter aerogenes within two hours of exposure on a painted surface. Overall degradation is about four years before needing to resurface.
- Packaging: The same nano technology has been applied to packaging with less success. The ability to kill and repel is possible but it seems to compromise the needs for a rugged package.

To date, the CDC has not been satisfied with the test results for any packaging or surface applications. Clearly there is pressure to find a solution.

Source: "Clinical Pharmacogenetics Implementation Consortium (CPIC®) Guideline for CYP2C19 and Voriconazole Therapy" (2018); Sherwin-Williams; Frontiersin.org

COMMUNICATING SAFETY TO THE CONSUMER

What are the latest best practices for communicating how safe your store is to consumers? Shoppers are far less concerned with legal openings as shown by recent events. They are motivated by knowing the store is safe.

- Communicate in straightforward and impactful terms with real examples what your company is doing to ensure shoppers' safety.
- Because COVID-19 can linger on surfaces, cleaning has become important in retail stores and along the supply chain. But not all surfaces are created equal. Some like copper, brass, and to lesser extent zinc, can rapidly break down viral material.
- Get this information to your shoppers, and better yet, your product packaging and merchandising fixtures. Tell the store and innovate with vigor.
- Aerosol sanitizers, which have a long history in food-prep areas, food services, and agriculture, are an established solution that should be in widespread use now.
- Review how you use key aerosol agents (along with critical use parameters) and get them into everyday use. Document your efforts for the public and inspection bodies.

Implications for Suppliers and Retailers

Suppliers

— Balance need for **SKU efficiency** to retailer financial needs.

— Innovate **shopper alternatives** with tighter portfolio.

— Reassess **packaging** to ensure relevance in new environment.

— Think **2020** to capitalize on the full changes with omnichannel and how the supplier is a solution provider.

Retailers

— Balance need for **SKU efficiency** with logistics and shoppers.

— Elevate the **store safety** to drive engagement.

— Review **packaging to shopper usage** to increase trip frequency.

— Coordinate **in-store and online inventory** and fulfillment.

4. CONCLUSION

2020 has proven to be the year that all of the investments retailers made in their customers' online experiences has been a valid investment. Retailers and suppliers need to be very aware of the inventory systems for both online and in-store fulfillment. Brands and retailers can continue to win in omnichannel by demonstrating care for shopper safety, and by providing excellent experiences in their stores and in digital environments.

The information in this report was supplied by Kantar in partnership with Rohrer. ***

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