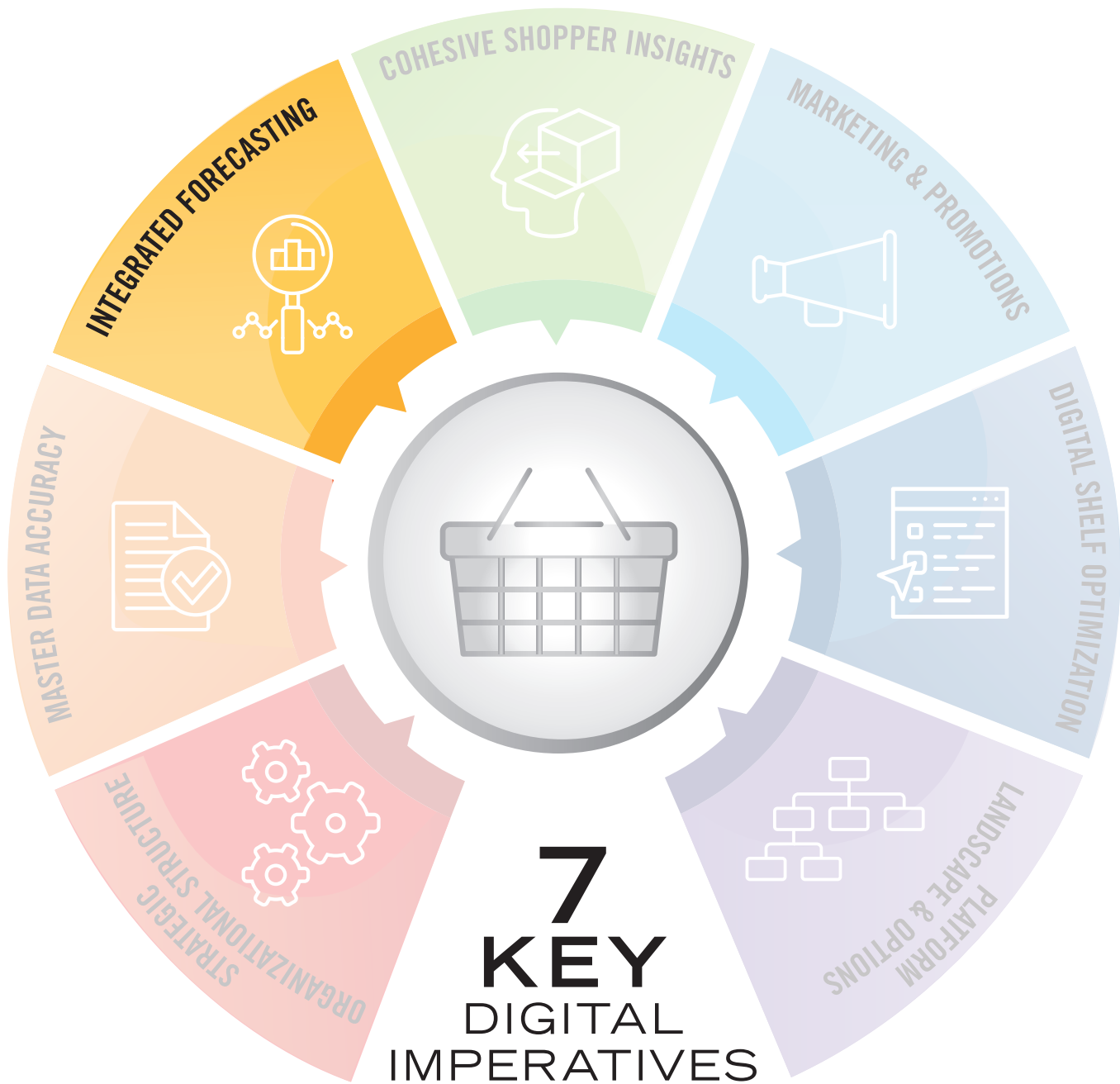




INTEGRATED FORECASTING

The most successful grocery retailers and CPG manufacturers are driving increased sales and profits by delivering an ideal omnichannel shopping experience, which requires having the consumers' preferred brands on the shelf, at the right time, at the right price.





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HOW TO MAXIMIZE YOUR OMNICHANNEL SALES AND PROFITS BY ADOPTING AN INTEGRATED FORECASTING AND FULFILLMENT MODEL

SECTION 1: GROWING OMNICHANNEL TREND CREATES MAJOR CHALLENGES – AND OPPORTUNITIES – FOR RETAILERS AND CPG MANUFACTURERS

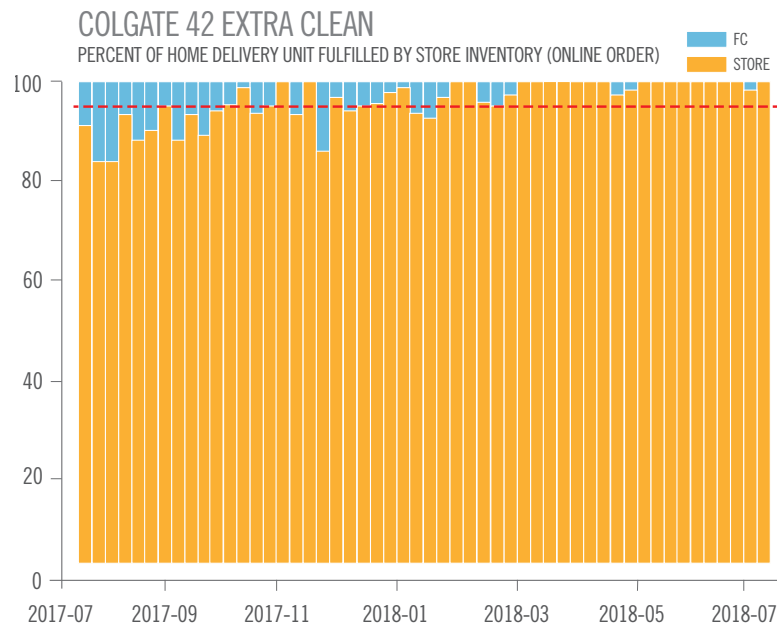
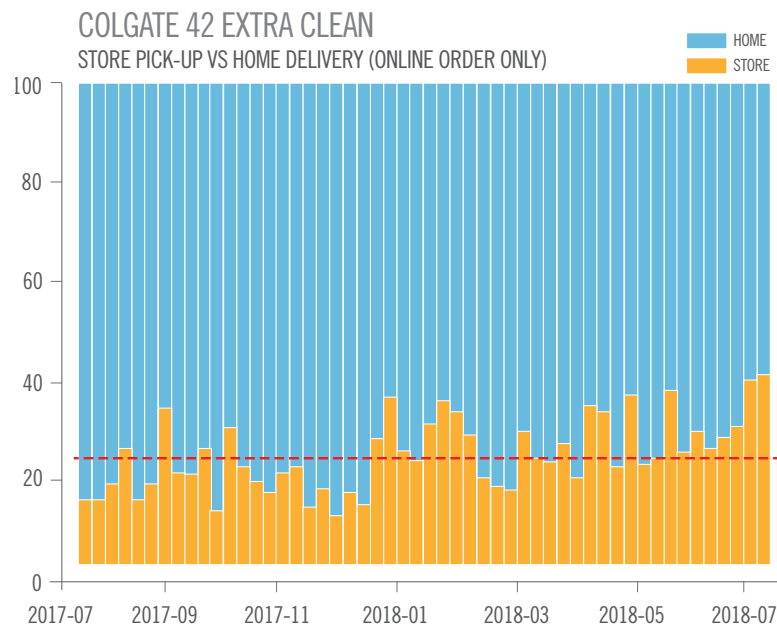
The most successful grocery retailers and CPG manufacturers are driving increased sales and profits by delivering an ideal omnichannel shopping experience, which requires having the consumers' preferred brands on the shelf, at the right time, at the right price. It's all about delighting consumers by maximizing on-shelf availability (OSA) and giving them the choice to do their shopping in-store, online, or a combination of both.

Clearly, there is a growing imperative to manage and monetize the rapidly growing omnichannel shopping reality:

- Online purchases growing 105-115 percent in FDMM¹
 - » Now accounting for 1.24 percent of total purchases and growing²
- 84 percent of purchases being fulfilled from store inventory¹
 - » 78 percent of online purchases being delivered to home²

1. Latest 365 days ending 10/23/2018 vs. year ago

2. Latest 91 days ending 10/23/2018



CONSUMERS NOW DEMAND
THE CONVENIENCE OF
SHOPPING HOW, WHEN
AND THROUGH THE
CHANNEL THEY CHOOSE.

In the relatively recent past, the majority of shopping was still done in-store (bricks-and-mortar). However, with the rapid rise of e-commerce and the increasing dominance of smartphones and other mobile devices in driving online shopping growth, consumers now demand the convenience of shopping how, when, and through which channel they choose. This growing omnichannel shift is both a challenge and an opportunity for the global retail industry. Retailers and CPG manufacturers alike can maximize their growth and profitability by embracing the growing omnichannel imperative and making it a key part of their business strategy and operational approach.

Favorite Ways for Consumers to Shop:

- 44 percent buying goods in-store and taking them home
- 34 percent buying goods online and getting them delivered home
- 8 percent buying goods online and collecting them in-store (“click & collect”)
- 8 percent buying goods in-store and getting them delivered home

(Source: Periscope by McKinsey, March 2018)

Retailers and their CPG suppliers are responding to these changing consumer shopping trends in significant new ways. But these shifts are creating availability challenges that can lead to lost sales and shopper dissatisfaction:

- Retailers pushing toward even greater in-store fulfillment
 - » Sub-case quantities
 - » Mixed-item/mixed-temperature baskets
 - » Purchases delivered by third-party providers
 - » “Click & collect” purchases
- Online and in-store shoppers competing for same inventory
- Exacerbating out-of-stock (OOS) issues resulting in lost sales
 - » Current FDMM OOS rates running @ 6 percent to 13 percent (turn vs. promo)

HOW THE OMNICHANNEL SHIFT IS CREATING A SECOND ‘SHOWTIME’ CHALLENGE FOR RETAILERS AND CPGS

Traditionally, grocery retailers have had to deal with a daily “showtime,” which is when the store experiences its biggest rush of shoppers. But with the explosive growth in online

shopping, grocery retailers and their CPG suppliers must now grapple with a second “showtime” every day. Typically occurring in the morning, the new omnichannel “showtime” happens when store employees fulfill the growing volume of online orders generated by “click & collect.” Because the store inventory usually is not decremented until after the order is placed and paid for, the new omnichannel-driven “showtime” can create serious out-of-stocks (OOS) issues, which lead to unhappy consumers and lost sales. This creates new pressure to ensure that in-store shoppers don’t encounter OOS on their preferred items during the traditional afternoon “showtime.”

“One of the fastest growing areas of omnichannel is ‘click & collect,’ whereby consumers order their goods online and then pick them up from the store later that day or the following morning. In some of our stores, ‘click & collect’ represents 20-30 percent of our sales.”

National Grocery Chain VP

RSi’s (and others’) analysis concludes that managing and maximizing OSA in this new omnichannel world will become mission critical for all the major players in the retail ecosystem. In a recent survey of retail professionals, Gartner found that “The store is rapidly turning into a preferred fulfillment node, with 78 percent of respondents reporting an increase in the use of store inventory to fulfill online orders.”¹

This growing preference for fulfilling online orders with in-store inventory is now putting additional demand and pressure on existing store inventories currently kept on hand in hundreds of thousands of retail locations around the world. RSi expects this demand and its pressure on store-level inventories to dramatically increase over the next five-seven years as consumer purchases continue to move online and as more CPG categories become a larger component of this online purchasing behavior.

An examination of two very different consumer product categories (utilizing RSi’s daily, Mass Merchant online and in-store sales, order and fulfillment data, as of July 10, 2018) highlights these growing preferences:

MASS MERCHANT LATEST 365 DAYS AS OF JULY 10, 2018	COFFEE MAKERS	TOOTHPASTE
PERCENT TOTAL OMNICHANNEL PURCHASES MADE ONLINE	12%	2%
PERCENT ONLINE PURCHASES FULFILLED FROM STORE INVENTORY	12%	12%
PERCENT ONLINE PURCHASES FULFILLED FROM DC/FC INVENTORY	12%	12%
#1 GROWTH DRIVER OF ONLINE \$ SALES VS PREVIOUS 365 DAYS	SHIP TO HOME FROM STORE INVENTORY	
#2 GROWTH DRIVER OF ONLINE \$ SALES VS PREVIOUS 365 DAYS	STORE PICK-UP FROM STORE INVENTORY	

¹Gartner, “Best Practices to Improve Retail Product Availability,” 2017

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1.7 - 1.9%

INCREASE
in total company
sales & profit
for retailers

*RSi's projected
results from
successfully
solving for
omnichannel
forecasting and
fulfillment*

2.5 - 2.7%

INCREASE
in total company
sales & profit
for manufacturers

In fact, for a relatively mature omnichannel category like coffee makers, not only are 64 percent of online sales being fulfilled from store inventory, but a grand total of 96 percent of all omnichannel sales are being fulfilled from that same store-level inventory. As mentioned above, we expect this trend to continue as:

- Omnichannel retailers continue to leverage their stores as unique differentiators vs. pure online retailers
- Consumers continue to demand even greater real-time fulfillment of their online purchases
- Third-party vendors (like Instacart, Curbside, etc.) continue to develop new ways to connect consumers' real-time, online demand to retailers' readily available, local store inventory

The challenges facing all parties in the fast-emerging omnichannel ecosystem are to maintain the needed levels of (store-specific/DC and FC) inventory every day, on every product, and to provide real-time visibility into (and exception-based action against) inventory shortfalls as they actually occur. As most in the industry know, these challenges are not new. Retail industry benchmarks consistently cite store-level out of stock rates of 8-10 percent during non-promoted time periods and 10-15 percent during promotions.

In the omnichannel world these challenges do not disappear (they simply become multi-dimensional), and the financial rewards for solving them remain significant. RSi believes that successfully solving for omnichannel forecasting and fulfillment will deliver a:

- **1.7 - 1.9 percent increase** in total company sales and profit for retailers
- **2.5 - 2.7 percent increase** in total company sales and profit for manufacturers

In this white paper, RSi outlines a proven strategy and operational approach for retailers and CPG manufacturers to turn the new omnichannel challenge into a sales and profit growth opportunity. Our recommendation is to adopt an integrated forecasting and fulfillment model and technology system that enables retailers and CPGs to solve the OSA issues posed by the new omnichannel "showtime." This will ensure that the retail industry delights consumers, no matter which channel they choose for their shopping.

SECTION 2: CAPITALIZING ON THE GROWING “SHOWTIME” OPPORTUNITY

To fully capitalize on the growing omnichannel “showtime” opportunity and make “click & collect” a winner for consumers as well as the bottom-line, retailers and CPG manufacturers need to implement an integrated data-management and forecasting/fulfillment model. The good news is that the technology already exists for such a forecasting/fulfillment system.

The following outlines how retailers and CPG manufacturers can turn the new omnichannel challenge into a sales-growth, loyalty-building business opportunity:

- Create two “showtimes” every day in each store
 - » 10 a.m. for the online concierge shopper
 - » 4 p.m. for the traditional in-store shopper
- Reduce OOS rates and lost sales by => 30 percent
 - » Complementing existing systems
 - » Utilizing existing inventory
- Generate significant rewards for retailers and manufacturers
 - » Sales +190 basis points and gross profit +170 basis points (retailers)
 - » Sales +270 basis points and gross profit +250 basis points (manufacturers)

In fact, the size of the prize is just as big – or even bigger – for CPG companies. For a CPG manufacturer who has a line of products that tends to be very convenience-driven and high repetition that works well with home delivery or “click & collect,” the size of the prize could be as high as 270 basis points. More to the point, consider the margin increase that can be achieved. The fact is, this is not just about running another ad, which has been the traditional approach to engaging shoppers and driving sales. Winning this “showtime” prize really is about the much-higher-margin opportunity that starts with maximizing OSA – making sure products are in stock at the right time in the right place, while giving consumers the freedom to choose which shopping channel they prefer.

SECTION 3: IMPLEMENTING AN INTEGRATED FORECASTING AND FULFILLMENT MODEL TO OPTIMIZE THE OMNICHANNEL “SHOWTIME” OPPORTUNITY

For a retailer or CPG manufacturer, there are three critical steps to implementing an integrated forecasting and fulfillment model:

1. Analyze the omnichannel opportunity – “size of the prize”
2. Execute the new omnichannel system at a control group of 10 stores
3. Get ready for a go/no-go decision for full roll-out

But how is this actually accomplished? How does a retailer go from “zero” to being able to measure, monitor, and report the omnichannel “showtime” success it is delivering for customers, consumers, and other key stakeholders? There are **three steps** to making this happen. In the vernacular of the Broadway version of “showtime” (e.g., “It’s Showtime!”), these steps are called the “**Run-thru**,” the “**Dress Rehearsal**,” and “**Curtain’s Up**.”

The three steps can also be described as the “Assessment,” the “Pilot,” and the “Roll-out.” (They’re really the same thing!). Here are the steps outlined in detail:

“RUN-THRU/ASSESSMENT” – The Run-thru/Assessment period for a technology solution like this integrated forecasting model usually runs about 8-12 weeks. The main point of the assessment period is to quantify the “size of the prize” and identify the biggest root causes that should be addressed and solved first. For instance: Is it a forecasting issue? Does the main problem have to do with perpetual inventory (PI) or a “tag not present” issue? What are the key elements that need to be rolled out first to capture the most value, to get the earliest wins in the new omnichannel “showtime” program? What ensures the full commitment from the participating manufacturers and the retailer to work together to make the entire integrated forecasting system work effectively and produce the desired results for all parties involved?

“DRESS REHEARSAL/PILOT” – The Dress Rehearsal/Pilot stage takes approximately six months. This is where the proof of value of the integrated forecasting and fulfillment model is demonstrated, while the data that’s required to make a “go/no-go” decision about a broad roll-out of the system is generated. This is also where lead manufacturers and retailer stakeholders are involved so that everyone agrees on the critical success criteria. The first two months of the dress rehearsal are focused on getting the stakeholders involved, agreeing on the success criteria, and identifying the test stores, control stores, and test fulfillment centers. After this initial two-month dress rehearsal, the next step is the “fun” part, the full pilot. A good rule-of-thumb for the time it takes to create and implement a technology pilot is about four months.

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1

run
through

dress
rehearsal

2

curtain's
up

3

*three critical steps
to implementing
an integrated
forecasting and
fulfillment model*

“CURTAIN’S UP/ROLL-OUT” – The final stage of implementing the integrated forecasting and fulfillment system for the omnichannel “showtime” is Curtain’s Up (literally, “It’s Showtime!”). This is when to decide on a “go/no-go” decision for rolling out the system to a much broader universe of stores/brands. In an ideal world, Curtain’s Up preparation is in parallel with the Dress Rehearsal/Pilot phase. Part of the Pilot is basically planning for success – “how do we quickly roll this out through the rest of the stores and the manufacturer base, and bring in the necessary financial support that we need, to make this thing scale?” The key is to ensure that the entire implementation is, in effect, cash-flow neutral, with no major infrastructure investment. The topline growth generated by the integrated forecasting/fulfillment pilot project should be dropping right to the bottom line.

Now, do we have your attention and interest?!

Assuming the retailer or CPG manufacturer progresses successfully through all these key phases (always focusing on practical and operational approaches), they can quickly get to delivering tangible benefits for shoppers that will make the “showtime” project a long-term, profitable success – an award-winning “show.”

They will delight consumers by meeting their evolving shopping needs and wants; they will generate important new revenue streams and drive more profitability. Retailers will turn their stores into highly efficient fulfillment centers that maximize sales. Manufacturers will ensure that shoppers always find their brands on the shelf, when they want them and at the right price.

In other words, a win-win for everyone.

SECTION 4: TECHNOLOGY ROADMAP FOR IMPLEMENTING INTEGRATED FORECASTING AND FULFILLMENT MODEL/SYSTEM

As with any technology-solution implementation, there are a number of inevitable technical challenges in executing an omnichannel integrated forecasting/fulfillment model and system. These technical challenges include:

- Seamlessly “ingesting” multiple data streams in real-time (POS, e-commerce, inventory, shipment, on-order)
- Little existing integration, causing data silos with outdated views (this is all too common)
- A dearth of business insights that can be activated in real-time (and real-time visibility is crucial to successful integrated forecasting and fulfillment)
- Platform limitations for data ingestion, cloud services, attribution, scalability, AI, and overall performance (Is there the right technology “stack” to make all of this work, and, if not, how can that be solved?)
- There is also the challenge of having multiple systems running in parallel:
 - » Legacy CAO systems...linked to other systems like PI
 - » New online purchase and fulfillment systems...that may not decrement PI systems until long after online purchases are ordered and picked

The bottom-line is that simply stuffing the pipeline with more inventory will not solve the new “showtime’s” OOS issues; it’s not economically viable.

The current platforms used by retailers and their CPG suppliers can also be problematic. Is the platform fully digitally connected? This includes a digitally connected supply chain, which can help make timely decisions on replenishment. In addition, what is the latency? Is the data many hours apart? Days apart? Or even weeks apart?

A truly digitally connected supply chain is essential to ensuring that the right decisions are made at the right time.

Here’s a technology roadmap to help successfully manage the new omnichannel “showtime” challenge:

- Collect and analyze real-time data from multiple systems
- Start simple with four data streams: order queue, perpetual inventory, online fulfillment queue, in-store POS
- Publish exception-based instructions to existing systems and processes

- Continuously predict occurrence and cause of out-of-stocks
- Improve sales with real-time promotional forecasts

SECTION 5: INTEGRATED FORECASTING AND FULFILLMENT CASE STUDIES AND BUSINESS MODELS

Here are two real-world examples of major retailers that have implemented integrated forecasting models to optimize their omnichannel results in very practical ways, delivering near-term wins and measurable results. Importantly, these retailers operated within the existing systems and processes that they already had in place. As a result, they were able to see a strong financial return in the short term that led to full chain-wide roll-outs.

CASE STUDY 1: MAJOR UK SUPERCENTER



This first case study involves a leading supercenter retailer in the UK. Their problem was that they had experienced a significant loss in sales, resulting from systemic on-shelf availability (OSA) issues. These OSA issues were caused by problems within their existing CAO systems and processes, particularly within their perpetual inventory (PI) systems. These issues were not unique to this retailer, as PI systems are historically difficult to maintain and keep accurate and often connect to additional components within the retailer’s CAO ecosystem. This creates multiple, negative “waterfall” effects when PI data is not correct at the store, item, day level.

In this case, the impacted retailer worked closely with their manufacturers and their chosen technology partner to bring three disparate data streams together to automatically assess and correct PI data issues in real-time, helping them dramatically improve their PI accuracy, CAO agility, on-shelf availability and daily sales. These three data streams included real-time POS data, online order data, and online order-fulfillment-queue data, which were ingested and analyzed prior to on-line orders being picked and decremented from the retailer’s existing PI system. The three parties – the retailer, the manufacturer, and the technology provider – also collaborated to develop the shared process that ensured proper updates to the retailer’s PI system so that all parties could participate, share in, and support the resulting increase in daily sales across the retailer’s store base.

The result: The UK retailer involved in this project experienced a one percent increase in ongoing daily sales across its FMCG assortment

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portfolio, which is a considerable “win” in a retail vertical that must fight every day to maintain or even marginally increase same store sales. In addition, the program delivered an eight percent improvement in order-fulfillment rates, with *zero* additional investment in inventory and *zero* additional investment in Capital Expenditures (Cap Ex) or Operational Expenditure (Op Ex) for the retailer.

The entire project was funded as a collaborative business process between the retailer and their manufacturers, with the program’s commercial model, KPIs and success criteria clearly defined prior to full roll-out. The time period from conception to roll-out lasted a total of eight months including conception, pilot definition, pilot, roll-out design, and roll-out implementation.

CASE STUDY 2: MULTI-FORMAT RETAILER IN THE UK



In this instance, one of the largest multi-format retailers in the UK had serious challenges fulfilling shoppers’ promotional orders, both online and in-store. These challenges were exacerbated by a median price elasticity of -2.9 for in-store promotions at the retailer and a median price elasticity of

-2.4 for on-line promotions executed by the retailer. In addition, the retailer’s CAO system was being informed by internal promotional calendars and forecasts, where much of the data in these adjoining systems was created weeks if not months before each promotion started. As a result, the retail’s median OSA rate for promotional items was <90 percent, causing significant lost sales, shopper dissatisfaction, operational complexity, and costs as the retailer’s logistics systems/processes constantly scrambled to respond to promotional out of stocks.

To solve this issue, the retailer, its CPG suppliers, and its technology partner ingested and analyzed real-time POS (by store, item, and day) to measure promotional elasticity and predict upcoming demand (by store, item, day) in real-time. These real-time predictions were then used to update the retailer’s legacy promotional forecasts in real-time, enabling the retailer’s CAO system to respond effectively to the promotional volume being driven in there stores. This was accomplished without having to tear out, or fundamentally re-architect, their existing planning, promotional, and/or CAO systems.

The result was a 2.4 percent increase in annual sales for promoted inventory, translating into a one percent increase in ongoing, total sales throughout the year. As with the first retailer’s

case study, this material improvement in promotional demand fulfillment was achieved with *zero* additional investment in inventory and *zero* additional investment in Capital Expenditures (Cap Ex) or Operational Expenditure (Op Ex) for the retailer.

ENSURING A SUCCESSFUL OMNICHANNEL “SHOWTIME”: IT TAKES COLLABORATION AND A “SINGLE VERSION OF THE TRUTH”

There is a multi-faceted “cast” required to maximize the significant sales and profit growth opportunity represented by the new omnichannel “showtime.” It’s not just the retailer – who clearly is the “star” of this show. There are the major co-stars, like the CPG suppliers, and key supporting players, including the technology vendors and key logistics partners.

Having a “single version of the truth” is vital to ensuring that all of these stakeholders are brought into the key success criteria on the “showtime” project, and also into the monetization and capitalization plan. It takes three important elements to attain this “single version of the truth”:

1. **Real-time orders**
2. **Real-time adjustment to existing systems**
3. **Real-time visibility**

Ultimately, the goal is to implement an integrated forecasting model that leverages that “single version of the truth.” This will help meet the omnichannel “showtime” challenges and maximize the opportunities. The following are the recommended critical actions:

- Track and trend online and in-store sales every day, by UPC and by store/region
- Forecast future sales by channel, UPC, and by store/region
- Predict demand patterns across fulfillment centers, DCs, and/or stores
- Manage the ever-increasing demands that both online and in-store sales are placing on in-store inventory levels

Today, retailers and CPG manufacturers can optimize their business across every channel, from in-store purchases, to e-commerce, to “click & collect.” With the new state-of-the-art data forecasting, analytics, and reporting solutions, the retail industry now has the visibility, agility, and intelligence it needs to dynamically manage the omnichannel “showtime” every day, leading to increased sales and profits. ■