A SUPPLEMENT TO CONSUMER GOODS TECHNOLOGY MAGAZINE

2016 TECH TRENDS

Uncovering High-Level IT Spending, Staffing, Technology and Performance Trends in Consumer Goods

TOPICS:

- Economic and Business Forces
- Digital Business Predictions
- Internet of Things in Consumer Goods and Retail
- Vendor Managed Inventory
- Portfolio Complexity Management
- Emerging Technologies

PRESENTED BY
CGT
CONSUMER GOODS TECHNOLOGY

RESEARCH PARTNER
Gartner

TITLE SPONSOR
RSi
Retail Solutions

EnterWorks
EXCEEDRA
KANTAR RETAIL
Mindtree
StiboSystems
TERADATA

EDIT NOTE

Digital Transformations Drive Tech Trends

KARA ROMANOW
Executive Editor

For as long as I've been covering the consumer goods industry, IT spending as a percent of revenue has hovered around 2 percent. This year, the annual Tech Trends Report, produced with Gartner, reveals a slight increase to 2.1 percent, up from 1.8 percent in 2014. It may not seem like much of an increase, but new challenges have led to exciting advances in technology for companies to explore. Digital consumers are the primary change agent, compounded by economic changes and shifting demographics. Our research delves into digital transformation, and also includes perspectives on supply chain advances, including demand management, portfolio management and the reemergence of VMI. We also visit emerging concepts like IoT in retail. So grab a highlighter and let us know where your organization is focused!

CONTENTS

RESEARCH PARTNER Gartner®

CGT®
CONSUMER GOODS TECHNOLOGY

VICE PRESIDENT OF TECHNOLOGY BRANDS
Dave Weinand
dweinand@ensembleiq.com

BRAND DIRECTOR
Richard Price
rprice@ensembleiq.com

EDITORIAL
Executive Editor: Kara Romanow
kromanow@ensembleiq.com
Editor: Alarice Rajagopal
arajagopal@ensembleiq.com
Group Managing Editor: Jamie Grill-Goodman
jgoodman@ensembleiq.com

SALES
Associate Publisher: Diana Masurack Mann
dmann@ensembleiq.com
Director of Business Development: Mike Johnson
mjohnson@ensembleiq.com
Assistant to Publisher: Jen Johnson
jjohnson@ensembleiq.com

ART AND PRODUCTION
Creative Director: Colette Magliaro
cmagliaro@ensembleiq.com
Production Manager: Pat Wisser
pwisser@ensembleiq.com

ONLINE MEDIA
Director of Lead Generation & Audience Development: Jason Ward
jward@ensembleiq.com
Web Development Manager: Scott Ernst
sernst@ensembleiq.com
Online Project Manager: Whitney Ryerson
wryerson@ensembleiq.com

MARKETING/EVENTS/CIRCULATION
Director, Event Planning: Patricia Benkner
pbenkner@ensembleiq.com
Director, Event Content: John Hall
jhall@ensembleiq.com
Circulation Manager: Jeffrey Zabe
jzabe@ensembleiq.com

Subscriptions: 978-671-0449
Reprints: edgellreprints@parsintl.com, 212-221-9595

CORPORATE OFFICERS
Executive Chairman Alan Glass
aglass@ensembleiq.com
President & CEO Peter Hoyt
phoyt@ensembleiq.com
Chief Revenue Officer Ned Bardic
nbardic@ensembleiq.com
Chief Digital Officer Joel Hughes
jhughes@ensembleiq.com
Chief Brand Office Korry Stagnito
korrystagnito@ensembleiq.com
Chief Financial Officer Chris Stark
cstark@ensembleiq.com

EnsembleIQ
SMARTER TO MARKET

CORPORATE OFFICE
Ensember IQ
4 Middlebury Blvd, Randolph, NJ 07869-1111
(973) 607-1300 • Fax (973) 607-1395
www.consumergoods.com

IT Spending Trends in Consumer Goods

BY JAN KOHLER AND ED PORTER

In 2016, Gartner is seeing an uptick in IT spending, an acknowledgement of significant challenges faced by the consumer goods industry. Rapidly changing consumer behaviors fueled by an increased use of technology and expanding shopping options within a slow growth environment are forcing consumer goods companies to hone in on growth and consumers. Throughout this annual research report, CGT partners with Gartner to provide insights to help understand the industry's latest survey data.

Spending Trends

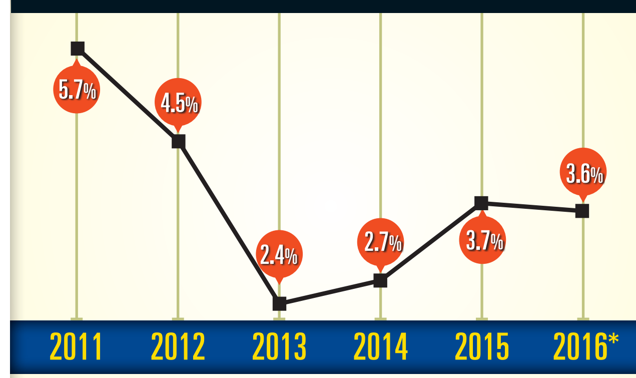
The *Gartner IT Key Metrics Data* series of reports was established in 1995 to support key strategic IT investment decisions for clients. Today, the annual publication delivers more than 2,000 metrics, across 96 documents and covers 21 different industries, including the consumer goods industry. This allows clients to rapidly identify high-level IT spending, staffing, technology and performance trends. In the most recent report Gartner found:

- 2015 IT spending in the consumer goods vertical increased 3.7 percent, up from a 2.7 percent increase in 2014 (see Figure 1).
- The 2015 consumer goods vertical industry average IT spend, as a percent of revenue, increased to 2.1 percent, up from 1.8 percent in 2014 (see Figure 2).
- The 2015 consumer goods vertical industry average IT spend per employee is $7,100, up substantially from $6,500 spend per employee in 2014 (see Figure 3).

Why, in a low growth environment, are consumer goods companies increasing their IT investments? The answer starts with consumers. They are becoming increasingly sophisticated users of technology and have increased their expectations of both retailers and manufacturers. As their shopping options have increased, so has the diversity of their purchasing behaviors. Consumer goods companies realize their industry is being transformed by these changes. They need to understand the new complexities of consumer behavior and how to effectively distribute and sell their portfolios in this more complex multichannel retail and direct selling environment. Retailers face the same issues, and manufacturers can and should collaborate more deeply with them to meet these challenges.

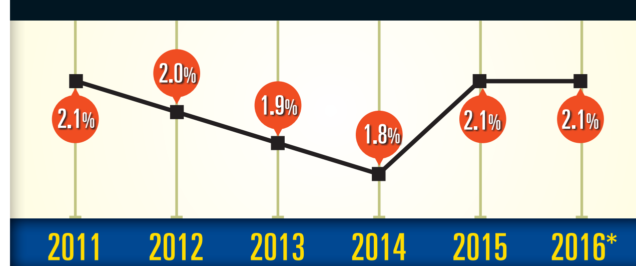
In a recent cross-industry Chief Information Officer (CIO) tracking survey, technology leaders confirm that digitalization is intensifying and the business stakes are rising. Business intelligence and analytics continues to be mentioned more than any

FIGURE 1: Consumer Products IT Spending Percent Change



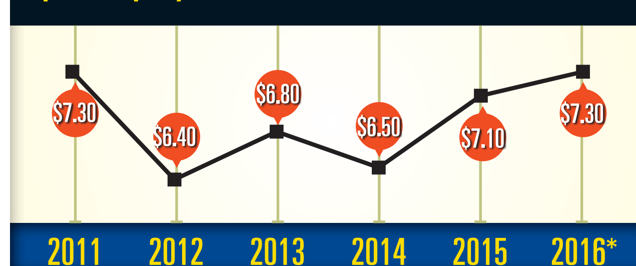
Source: Source: Gartner IT Key Metrics Data 2016

FIGURE 2: Consumer Products IT Spending Percent of Revenue



Source: Gartner IT Key Metrics Data 2016

FIGURE 3: Consumer Products IT Spending per Employee



Source: Gartner IT Key Metrics Data 2016

IT Spending

other area as a "top 3" priority. Digitalization/digital marketing mentions doubled versus two years ago and is now the fifth most frequently mentioned category.

Other critical tools for success in this more complex environment are retail execution and cost efficiency. Our clients' interest in topics such as trade promotion management and optimization, retail execution and monitoring, and image recognition remain very high.

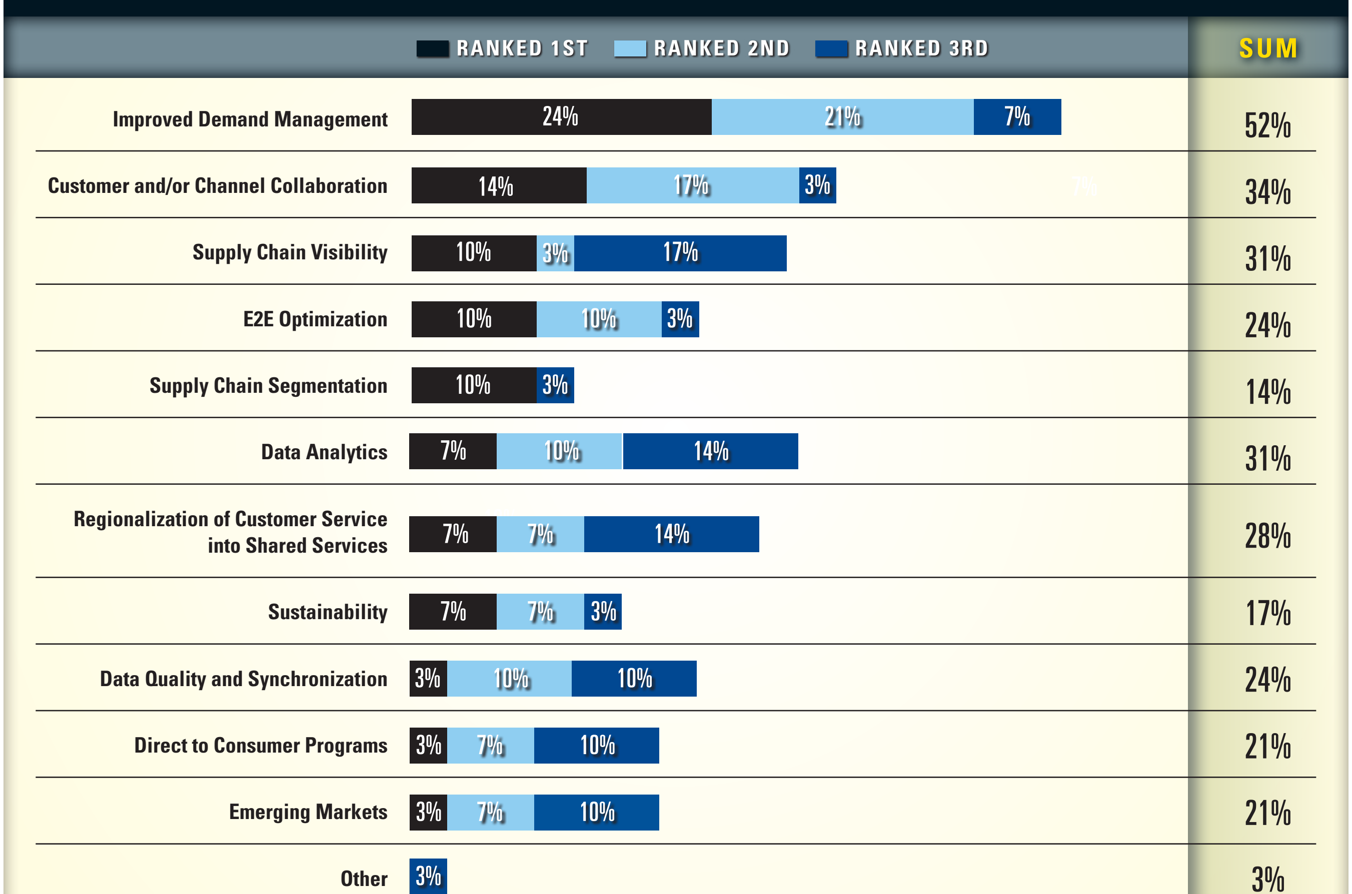
Consumer Goods Supply Chain Investment Trends

In Gartner's 2016 survey of more than 250 Chief Supply Chain Officers (CSCO), consumer goods supply chain leaders identified their top opportunities for 2016: improved demand management, customer and/or channel collaboration, supply chain visibility and data analytics (see Figure 4).

Improved demand management has been a focus for consumer goods organizations for many years. Despite continued efforts to improve forecast accuracy, demand forecasting is still a huge challenge. Gartner's June 2016 release of consumer products benchmarking data shows quite a gap between the median and top quartile performance for demand forecast error. Foundational investments to planning process, metrics, skills and technology are needed to reduce forecast error and support improved demand management. More advanced capability requires investment in demand sensing and capability to leverage downstream data

FIGURE 4: CSCO Study Top Opportunities: Consumer Goods

Q. Rank three top opportunities, which you expect to impact your organization's supply chain over the next three years.



Source: Gartner 2016

IT Spending

including retail point-of-sale, inventory and on-shelf-availability data to understand the sell-through patterns to better align the near-term supply response to actual downstream consumption.

Investment in customer and/or channel collaboration is needed to provide improved relationships and joint value creation with retail partners. Consumer goods customer service teams should first focus on building internal capability to deliver strong basic service through alignment between supply chain and sales, understanding customer requirements and ensuring robust operational capability. Then begin engaging with key retailers to create value together. Prioritize initiatives that benefit both parties in areas such as improved product availability, reduced cost and inventory, and ease of execution. Ensure you include strong governance and organizational support to sustain the progress achieved.

End-to-end supply chain visibility enables business stakeholders to connect and collaborate across multiple supply chain functions. This allows business partners to connect and exchange data through an information hub solution, and then leverage those insights within supply chain processes to drive value and mitigate risk. Improved supply chain visibility helps organizations to realize benefits that can be measured directly — such as inventory optimization — and also indirectly, leveraging that insight for faster and more accurate business decisions, for example.

Supply chain analytics capability is essential for effective decision making, improved supply chain performance and creating a profitable response to market demand. It has become one of the newest functional areas to be added to the CSCO direct reports. Advanced analytics allows organizations to become more proactive, anticipating future scenarios and generating an optimal response across the end-to-end supply chain. In the digital era, analytics are no longer a "nice to have" but are a necessity as organizations contend with explosive volumes of data, shorter response cycles and higher customer service expectations.❖

Socio-Economic and Business Forces Impacting the Consumer Goods Industry

BY ELLEN EICHHORN AND ED PORTER

The socio-economic and business forces surrounding us have never been more powerful, and they will strongly impact the future of the retail and consumer goods industry. Gartner has identified several forces that collectively create significant imperatives for forward-thinking organizations.

Consumers Are In Control. Consumer technologies continue to get more sophisticated and skilled use of these technologies continues to grow, leaving both retailers and manufacturers to figure out how to build and maintain strong consumer relationships. Consumers now have more shopping options and product options than ever before, and the growing use of multi-channel shopping allows them to fit shopping more conveniently into their busy lifestyles. Retailers and manufacturers will need to work more closely together to effectively satisfy consumers' growing expectations of more convenient shopping alternatives. Consumers will increasingly demand seamless multi-channel shopping experiences, excellent customer service and personalization. Continued technology improvements will spawn even more business models, which will drive even more control toward consumers (see Figure 5).

Consumers Move Toward Services and Experiences. Consumers are allocating more of their spending to services and experiences. They are shifting their priorities away from material possessions and toward areas such as entertainment, travel and wellness. According to a recent *Wall Street Journal* article, consumption of services now makes up about two thirds of all personal expenditures, up about five percentage points from the year 2000. Consider that, as multi-channel shopping matures, the role of the physical store will need to become more distinct and it's natural advantages — the ability to engage and provide strong sensory experiences, the ability to offer human interaction — will take on greater importance. When consumers do visit stores, they will expect it to be more experiential. Also consider that traditional consumer products will increasingly need to demonstrate how their brands fit into consumer lifestyles and activities. The Internet of Things (IoT) enables new "connected" products and services, and 3D printing enables highly customized and distributed manufactur-

Socio-Economic and Business Forces Impacting the Consumer Goods Industry

ing to occur. In the end, the industry must find new ways to deliver greater value, as this will be necessary to remain competitive and relevant to consumers.

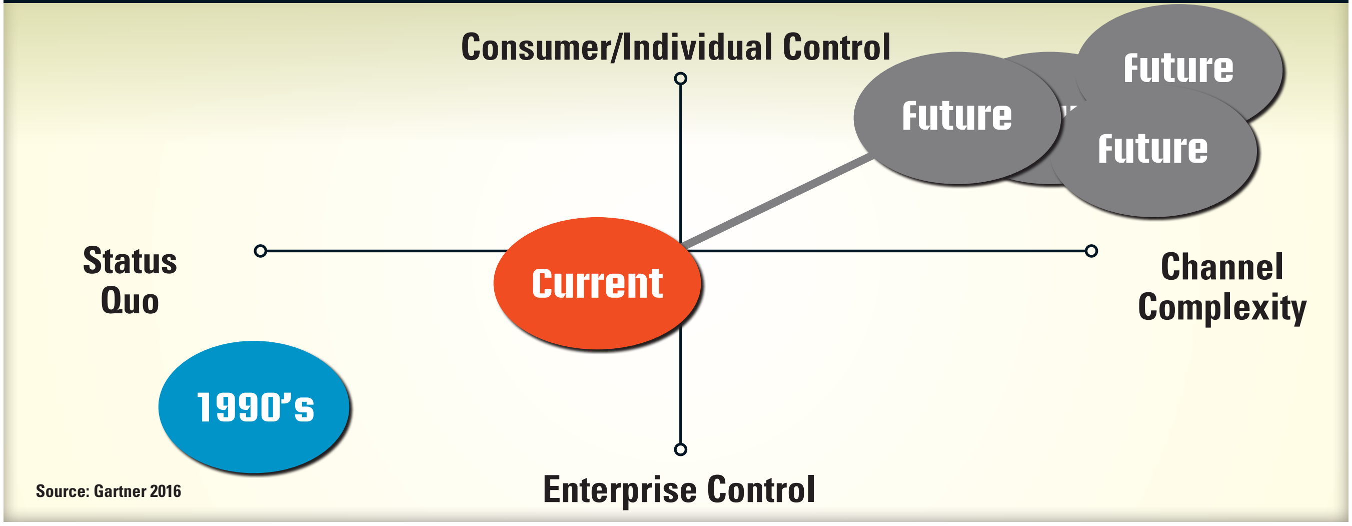
Shifting Global Demographics. As always, changing demographics have great influence on consumer trends and as our world becomes more connected, these changes will have more significance. While demographic trends can vary dramatically by country, there are five worldwide trends that have significant impact for this industry.

- Aging. The world population continues to get older, primarily due to longer life expectancies and delayed parenting. In developed countries, the number of people 60 or older will increase by 2.5 times between now and 2050. In developing countries, the 60 or older population will increase by seven times.
- Declining Population Growth. The expected population growth rate for 2016 is +1.13 percent, down from 1.3 percent in 2000. The population growth rate will continue to steadily decline with projections of +1 percent in 2020 and 0.75 percent in 2030.
- Coming of Age. There are 1.8 billion young people in the world between the ages of 10 and 24. This is the largest youth population ever, and will likely have profound impact on overall spending habits and workforce expectations in upcoming years.
- Migration. Migration is at an all-time, an estimated 232 million people in 2013 compared to 175 million in the year 2000. This long-term trend continues to have dramatic impact on the level of diversity in both developed and developing countries.
- Urbanization. This is another long-term trend that is expected to continue and is related to migration. Today more than half the world's population live in urban areas and this trend is expected to continue.

It's safe to say that as a result of these profound demographic changes, many new consumer segments will emerge over the next few years. Successful consumer-driven companies will continuously learn about and innovate for these new consumer segments. Imagine the possibilities!

Execution and Efficiency. The combination of the above and other significant forces will place great strain on overall industry growth. Growth in multi-channel shopping activity and increasing divergent consumer needs will add significant complexity to marketing, merchandising, sales and supply chain activities. It will be more imperative than ever that these activities be executed well in order to prosper and gain market share. These industry forces will continue to focus both retailers and manufacturers on retail execution and cost efficiency. Fortunately, more sophisticated and powerful monitoring and analytic tools are available to meet these needs and forward-looking companies will invest in and leverage these tools. ❖

FIGURE 5: More Control Shifting to Consumers



Source: Gartner 2016

Digital Business Unlocks Innovation and Operational Effectiveness

BY STEVE SMITH

The blurring of the virtual and physical worlds and is altering how people and things interact to conduct business. The forces of mobile, social, the cloud, big data, advanced analytics, and the internet of things (IoT) have converged in a way that has created both challenges for the unprepared and opportunities for the forward thinking. As companies contemplate the impact of digital business, is important to avoid the trap of just benchmarking against the companies within their industry. The very nature of digital business is breaking down the boundaries between industries.

Enterprises are rapidly changing their engagement level with digital business. Figure 6 identifies the change in how companies are responding to digital transformation from 2014 to 2015. More than half of the respondents in 2015 indicate that they either have plans or have already implemented digital business activities.

Moving with this trend is not without its many risks and challenges. Enterprises rank data management, IT leadership and IT security at the top of the list (see Figure 7). But in general, the concerns are all about managing the data, building the business case and ensuring that the organization is able and ready to manage the change. Consumer goods companies will need to evaluate both their product portfolio and how they do business with their partners to succeed with digital business. Staying connected with retailers and collaborating with them will help solidify your business case and ultimately help with adoption and payout.

Investment in different technologies and infrastructure will be required, and many companies are well on their way to building out their digital business technology portfolio. Any investments should of course be linked to specific transformational business objectives. Figure 8 illustrates where and how seriously companies are investing today.

Consumer expectations are changing with digital business as they interact with their utility companies, their transportation options, their governments, their banks and every other industry. They will bring those expectations to their interactions with consumer goods companies. They will expect channel options and expect that services and enhanced value be embedded in particular products. Because the consumer goods industry has been driven by building value propositions based on consumer needs, digital business should be viewed as an opportunity, not a threat. ❖

FIGURE 6: Digital Business Status

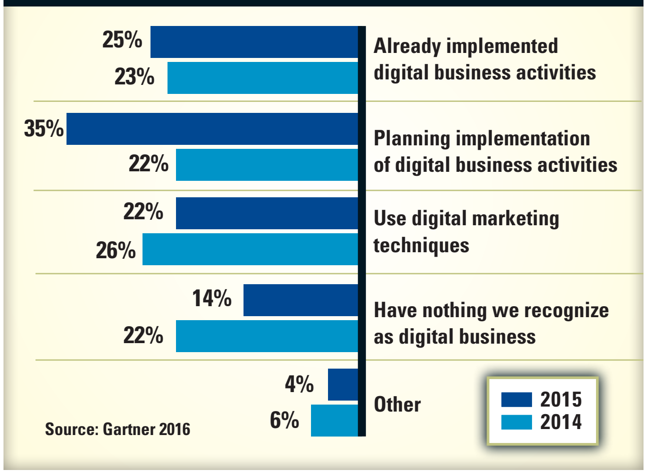


FIGURE 7: Top 3 Digital Business Technology Related Challenges

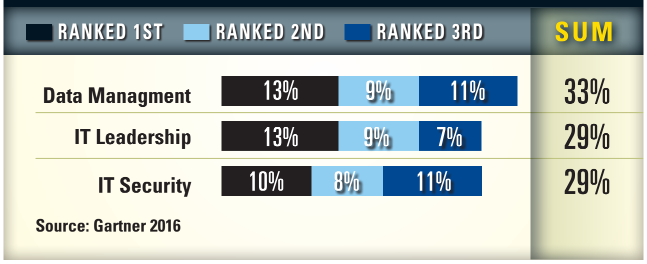


FIGURE 8: Top 5 Technology Investments

Investment	CURRENTLY USING (partial or full deployment)	PILOTING	PLAN TO INVEST WITHIN 24 MONTHS	NO PLANS TO INVEST
Mobile Technology	55%	25%	15%	5%
Analytics	52%	29%	16%	3%
Cloud Services	52%	23%	20%	4%
Business Intelligence	45%	26%	24%	6%
Social Collaboration (internally)	44%	29%	18%	8%

Source: Gartner 2016

IoT Gives Rise to the New Economics of Connections

BY DON SCHEIBENREIF

Technology has increasingly enabled more and more dense connections, and as the connectedness accelerates, it shrinks time and distance, virtually making the world smaller, faster and more flat. Some business activities that once took hours, days or weeks to traverse distances, crunch data and await human actions and handoffs can now be executed in a business moment. Many of us are checking e-mail, news, social media and alert messages well before our first cup of morning tea or coffee. But physical assets have largely, and in comparison, been isolated. The Internet of Things (IoT) overcomes this hurdle and brings physical assets into the connected world. With physical assets comes advancement in a new underlying economics of connections, what Gartner defines as "the creation of value through increased density of interactions between business, people and things".

Digital business redefines the economic playing field as "things" join people and businesses in the connected world.

The practical benefit of economics lies in helping leaders make better business investment decisions. Building out digital business ecosystems requires new and different approaches to investing in networks, systems and assets. This elevates the importance of the underlying economics to making the right decisions. In essence, the advent of IoT is extending the basic principles of network theory from the virtual world to the physical world.

To capitalize on the new economics of connections, consumer goods business and IT leaders need to develop four capabilities:

1 Apply the new underlying factors of economic value to digital business investments. Gartner believes that economic agents, primarily Internet-connected things that will situationally change the nature of their role, work and compensation, will dominate the new economics of connections. For example, a machine driven by algorithms could alternate between completing a discrete task, requesting service or brokering information, and possibly be compensated for that work.

2 Define and respond to a new set of digital business-leading indicators. These leading indicators may include metrics such as reduced time to complete a process, ability to gather and process larger data volumes with higher quality, sentiment analysis and net-promotor score. Successful organizations will develop the core competencies needed to identify the leading indicators with the greatest impact on desired financial outcomes, and clearly illustrate their relationship to influencing lagging indicators.

3 Manage capital assets not as a single "owner" but as a member of an ecosystem. In digital business models, enterprises create an ecosystem of independent parties that are the sources of the actual value to customers. In areas ranging from ride sharing, and hoteling to funding and development, creative leaders are taking a different approach to how they manage their assets.

4 Shift from controlling business interactions to influencing them. As Gartner deeply examined digital business, we came to view "business moments" (a brief everyday moment in time illustrating how a connected network of people, business and intelligent things interact) as its essential building blocks. For example, a smart house detects when an appliance needs proactive repairs and collaborates with the homeowner and vendor to affect the repairs. Benefiting from the new economics of connections requires the flexibility to leverage those connections dynamically to derive the best value in responding to the specifics of the exact situation as it unfolds.

Digital business redefines the economic playing field as "things" join people and businesses in the connected world. The value of these connected assets expands tremendously. CIOs and IT leaders in consumer goods must apply these approaches to capitalize on the value delivered through the new economics of connections. ❖

IoT in Retail

BY MIRIAM BURT

Having already implemented IoT, for example, in the supply chain for asset tracking or monitoring food freshness, the retailer's current appetite for it is being driven by the realization that the strategic value of the data-driven IoT comes from generating new ways of creating and delivering value to their customers. To do this, they must harness the power unleashed by the convergence of IoT, smart machines, advanced analytics and mobile to create an extremely agile and responsive "digital nervous system" to serve up contextualized customer experiences that will make their lives easier.

The ensuing business transformation will trigger massive disruption requiring significant change management. Retailers will need a robust IoT strategy to help balance the risks and opportunities, identify suitable uses cases, identify business benefits, come to grips with the costs and challenges of implementation as well as prepare for a grueling metamorphosis.

The "connected store" is a major IoT use case in which IoT can deliver new ways to keep the operational costs down as well as stimulate growth. For example, it can convey the optimal blend of online and offline by delivering cross channel pricing accuracy, relevant product information and well-targeted mobile promotions directly to the customer at the shelf, all at the same time and in real time.

The IoT is a highly complex IT environment with no off-the-shelf solutions available. Basic costs pertain to the embedded technology, platforms for data crunching and applications that act upon data intelligence. The costs of overcoming the challenges of implementing IoT include determining business requirements, cybersecurity and data privacy, integration, interoperability and standards, infrastructure, software licensing, advanced analytics and vendor selection.

IoT is not confined to any business or any industry. Even as they focus on IoT within the business, retailers must start thinking about how IoT can take them well beyond the boundaries of retail (see Figure 9). ❖

FIGURE 9: 8 IoT Business Benefits

BUSINESS BENEFIT THROUGH IoT	RETAIL EXAMPLE
Improve Operations and Productivity	Data collected via IoT devices in the store, such as traffic counters linked to queue management camera devices to maximize productivity through optimal labor scheduling.
Optimize Assets and Manage Costs	Using predictive analytics to lower maintenance costs for enterprise asset management, for example, refrigerators and freezer units in store.
Enhance Services	Accurate location data from beacons and geo-fencing can be combined with store floor maps to provide precise, real-time "wayfinding" navigation support to customers when shopping in store.
Generate Revenue	Using a combination of ESLs and BLE beacons to use the customer's in-store location to deliver timely, relevant and personalized content and offers.
Increase Engagement	Using beacons to alert employees with notifications of locations of VIP shoppers and frequent store visitors to enable employees to deliver a hi-touch and contextualized service to the most valuable customers.
Improve Wellbeing	Creating a daily destination dashboard, which receives data from IoT-enabled wearables such as athletic shoes and apparel combined with mobile fitness apps to give real-time aggregated data on activity levels and general fitness.
Strengthen Security	Using commodity security cameras and motion detectors to protect physical assets such as premises, equipment and inventory as well as people.
Conserve Resources	Reducing energy wastage and reducing cost by enabling services to improve control settings in retail real estate and in consumers' homes.

Source: Gartner 2016

Portfolio Complexity Management Must Be a Priority for Chief Supply Chain Officers

BY JAN KOHLER

As manufacturers continue to introduce new products, it is crucial for supply chain leaders to prioritize portfolio management and to collaborate with business partners to optimize portfolio health.

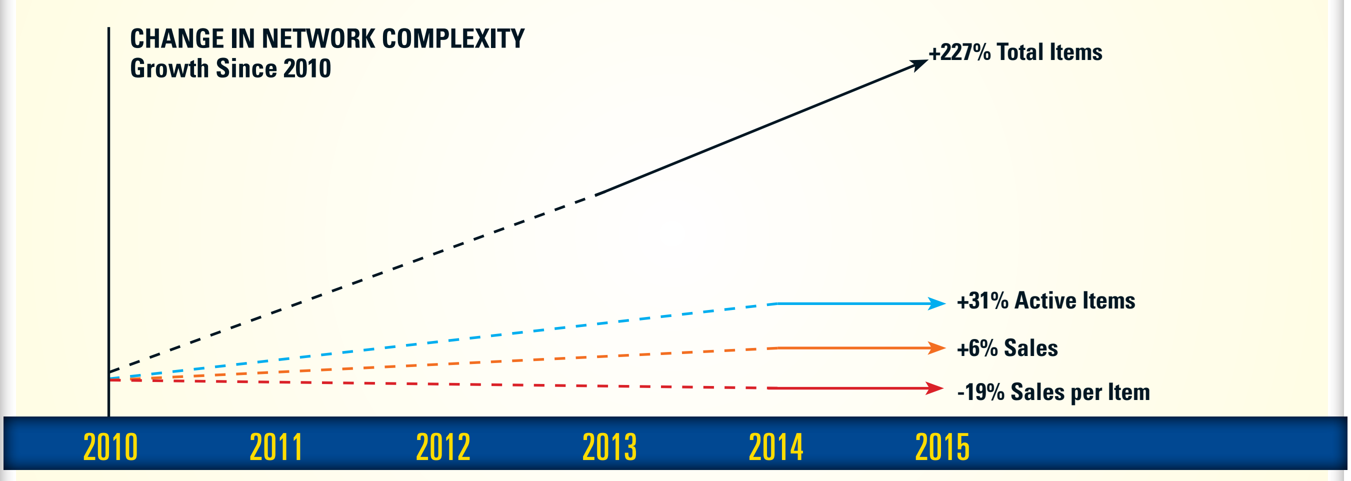
After all, supply chain executives live with constant and often conflicting demands from business partners in sales and marketing, finance and even from customers. This juggling act is especially evident in product portfolio decisions around product launches, how unique they should be by customer, channel or market, and which less profitable or slower velocity products should be pared back.

Sales and product marketing typically have a view that "more is more" when it comes to product variety. Customers are increasing their demand for customized products and solutions. On the other hand, the supply chain is already juggling multiple priorities in terms of revenue, cost, flexibility and differentiation, so increasing the portfolio with new product launches can add significant stress. The key is to know which of these demands can be profitably satisfied in an agile and responsive manner, and which products are no longer productive and should be discontinued to increase the overall portfolio productivity.

A *2016 E2Open Forecasting Benchmark Study* revealed that the consumer products industry continues to add new products and supply chain complexity, although the practice is not significantly contributing to revenue growth (see Figure 10). The study noted a 31 percent increase in the number of active items since 2010; but total sales grew only 6 percent, with the average sales per item dropping 19 percent during that time. Reflecting the introduction and discontinuation churn, the data shows the number of distinctly different products offered for sale over the six-year period was up 227 percent, with a large majority of these items having since been discontinued.

This activity brings with it the associated costs to design, forecast, launch and manage the products through the supply

FIGURE 10: Consumer Products Innovation Is NOT Driving More Sales



Source: 2016 E2open Forecasting Benchmark Study

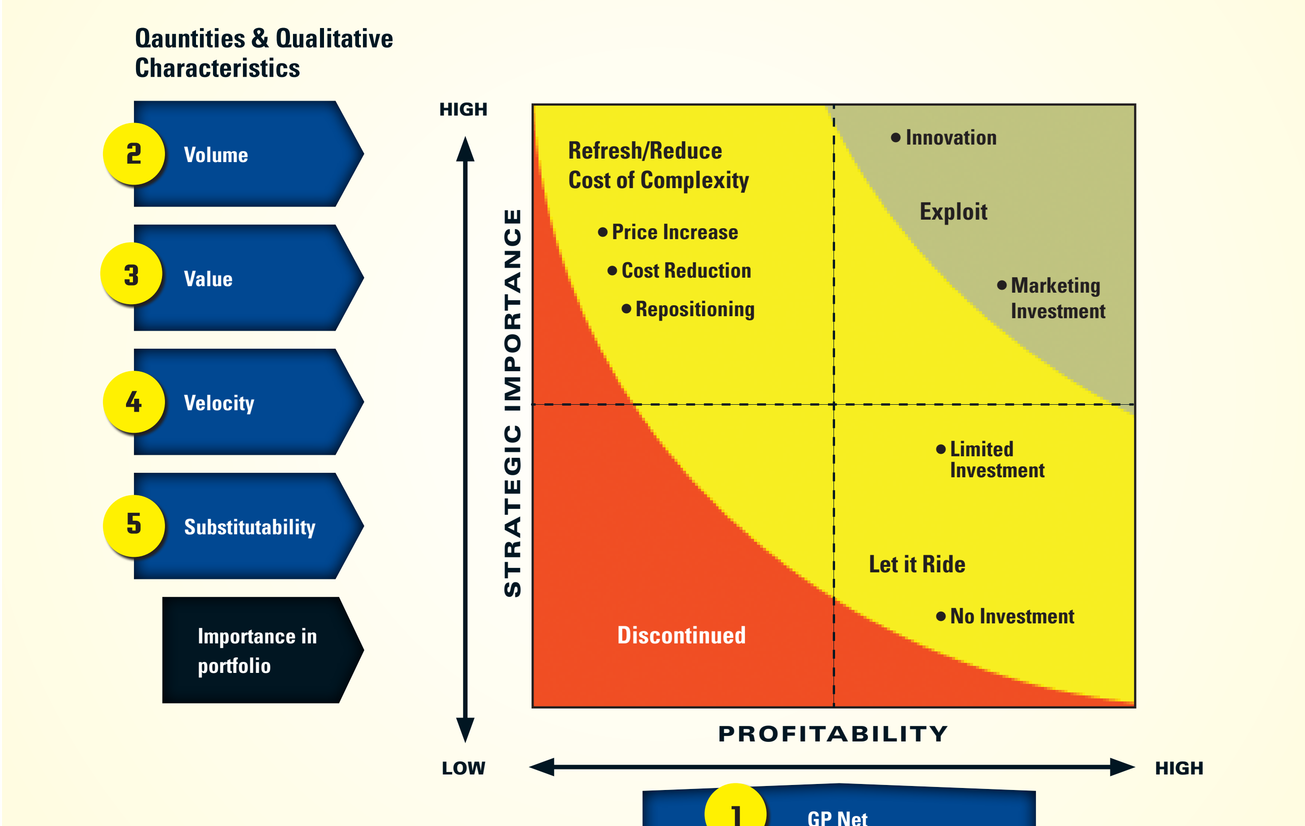
chain, and then incur the costs to eliminate them from the portfolio, making sure to minimize any write-offs of finished goods or materials inventory.

If there is one trend that came through loud and clear in Gartner's 2015 CEO and senior business executive survey, it is that the C-suite of companies in industries that have supply chains, including retail and consumer goods, are now laser-focused on growth. A full 50 percent of CEOs and senior executives picked growth in their top three business priorities for 2015-16. Leading supply chains are enabling this growth, both organically and through successful M&A integration. At the same time, supply chain leaders are emerging as trusted and integrated partners to business groups. Their focus on profitable growth often leads to smarter, more conscious decision making, saving business groups from spiraling out of control in the drive to maximize revenue. Supply chain's influence over which products will be sold and what customer service levels will be supported provides a crucial checks and balances.

Smart CSCOs wishing to align their top activities with their CEOs' priorities need to demonstrate how their initiatives are strategically designed to help meet top-line growth goals and profitability. With the CEO's eye on new products and markets, and with collaboration and new product launch investments delivering a track record of generating business value, supply chain leaders have an opening to expand their ability to support the duality of efficiency and business growth.

CSCOs can play a key role in helping to identify "bad" complexity cost and risks associated with portfolio complexity, defined as complexity for which customers are unwilling to pay a profitable price. In the past three years, Gartner has seen a marked increase in companies enlisting supply chain teams as drivers of portfolio productivity analysis (see Figure 11), responsible for identifying and recommending candidate products for discontinuation and phase-out to help manage total portfolio productivity. ❖

FIGURE 11: Example Kill or Cure Analysis

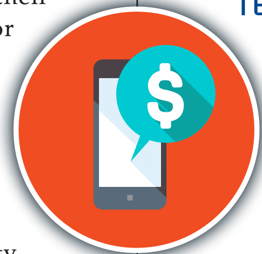


Source: Gartner 2016

The Re-Emergence of VMI Drives Gains in the Consumer Goods Sector

BY CHRIS POOLE

Consumer product manufacturers and their retail partners are embracing vendor managed inventory (VMI), an old concept that has gained newfound financial significance.



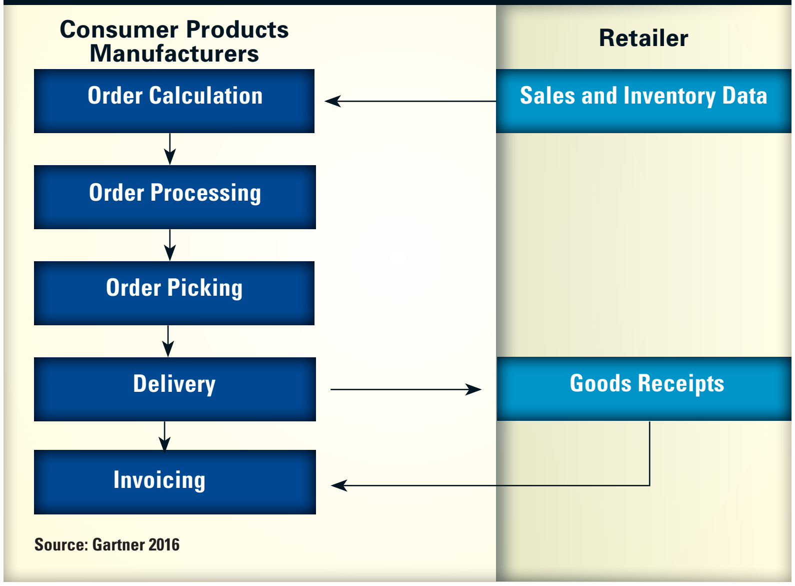
Technology advances have allowed VMI to make a strong comeback in the last several years as consumer products companies seek to improve product availability, cut costs and reduce inventory.

VMI first came into vogue in the consumer goods sector during the 1990s, driven by consumer products manufacturers that sought to gain increased visibility into product availability by managing their own inventory at retail distribution centers. As a result, they reaped service, cost and inventory reduction benefits, while some retailers benefited from fewer out-of-stocks and improved customer service levels.

Retailers did not immediately see the benefits of handing over control of their replenishment, so VMI lost some of its popularity. In addition, the payback to consumer products companies was not immediately clear. However, technology advances have allowed VMI to make a strong comeback in the last several years as consumer products companies seek to improve product availability, cut costs and reduce inventory. Manufacturers are under increased pressure to deliver more agile and responsive service while reducing costs and offering better pricing in an ever more competitive market. Many of those reinvesting in VMI have exhausted legacy systems put in place nearly 20 years ago and have implemented new robust platforms that further enhance ROI. Today's tools provide better demand and inventory visibility to make better decisions based on daily and even hourly shelf-level data. In the past, VMI analysts had only past order and shipment histories to work with.

VMI solutions help manufacturers cut costs and increase sales. By shifting from traditional replenishment models to VMI (see Figure 12), many consumer products firms report case fill improvements of up to 2 percent, with a 5 percent to 10 percent reduction in transportation costs. They also gain from reduced costs in the distribution center because less means more targeted inventory. Inventory turn improvement of up to 25 percent is possible, as well as a 20 percent to 25 percent decrease in out-of-stocks. In addition, VMI promotes better demand forecasting and order smoothing — leading to efficiency gains. ❖

FIGURE 12: VMI Process



Source: Gartner 2016

Key Emerging Technologies in Consumer Goods

BY ELLEN EICHHORN

It feels as though every day we hear of a new technical capability, integration or digital interaction coming to life. But which of these should we invest in? What are our competitors investing in? One thing is certain, consumer goods manufacturers continue to favor technology investments facilitating competitive differentiation, not technical originality.

Value-added features and usability are paramount for consumer goods users, whether in the manufacturing facility, the field or headquarters. They will facilitate the continued evolution of the consumer goods industry toward digitalization and the world of digital business — a new environment embracing the economic design of blurred physical and digital worlds.

This is beyond digitization, which simply moves data to a digital form. We expect digitalization in consumer goods to introduce a new era of growth from the convergence of people, businesses and intelligent things, resulting in revenue opportunities brought to life by engaging (and partnering with) retail customers, consumers and supply chain vendors (see Figure 13).

Some key emerging trends today include:

- **Real-time price and promotion optimization and management** can extract actionable insight and pricing guidance from ERP, CRM, TPM, TPO, order management and other enterprise applications. It is significant because seldom does the consumer goods industry see such a quick transformative technology profile. While the foundation of pricing and promotion has been largely dormant for the last decades, the introduction of the digital store, smartphone applications allowing immediate price matching and online third-party retailing have reintroduced the topic.
- **Retail activity optimization (RAO)** leverages advanced analytics to substantially improve the financial return of field sales force efforts in the consumer goods industry. The technologies use advanced analytics to drive in-store activities that manufacturers need executed by field sales personnel. The technologies include data accumulation and analysis, pushing the activities out to field sales personnel through mobile devices, and collecting the inputs or outcomes from the mobile devices to integrate with existing decision solutions.
- **Things as customers.** As internet-connected things become more intelligent, they will gain the capacity to buy, sell and request service. The result will offer new opportunities for revenue, efficiencies and customer relationship management. ❖

FIGURE 13: Three Impacts for Consumer Goods

Information Excellence	1	Business moments, driven by information will become key tools for identifying growth opportunities in consumer goods.
Customer Collaboration	2	Digital business will challenge consumer goods companies to collaborate with consumers and customers even more than they do today.
Dynamic Recombination	3	The smart home and the Internet of Things will become the next battleground for consumer goods brands looking to build direct relationships and to drive growth.

Source: Gartner 2016

2016 TECH TRENDS

PRESENTED BY CGT CONSUMER GOODS TECHNOLOGY

RESEARCH PARTNER Gartner

THANKS TO OUR SPONSORS:

TITLE SPONSOR:

RSi Retail Solutions

Retail Solutions, Inc. (RSi) turns retailer data into opportunity, ensuring the right product is in the right store, at the right time. The RSi platform processes billions of records daily and turns this data into actionable insights for immediate decision-making for retailers and CPG manufacturers. From solving out-of-stocks to driving inventory down, from optimizing sales strategies to determining marketing ROI, RSi improves operational excellence and drives sales.
www.retailsolutions.com

EnterWorks

EnterWorks Product Information Management (PIM) solution, including Digital Asset Management (DAM), Sales and Marketing Portals, and Syndication engine, enables brands to differentiate customer experiences through dynamic B2B2C content and collaboration. Leading CPG companies including HP Hood, Fender and Mary Kay rely on EnterWorks, which is highly ranked by Gartner, Forrester and Ventana Research and GDSN MjR3 certified.
www.enterworks.com

EXCEEDRA

Exceedra is a global provider of Integrated Business Planning & Revenue Management solutions for Consumer Goods companies. Our solutions deliver capabilities for clients to improve and simplify planning processes including Trade Promotion Management and Optimization, Customer Business Planning, Joint Business Planning, Demand Planning, and Sales & Operations Planning.
www.exceedra.com

KANTAR RETAIL

We are the retail and shopper specialists. Kantar Retail is a leading retail and shopper insight, consulting and analytics and technology business and part of Kantar, the data investment management division of WPP. We work with leading brand manufacturers and retailers to help them sell more effectively and profitably.
www.kantarretail.com/xtel

Mindtree

Mindtree delivers digital transformation and technology services from ideation to execution, enabling Global 2000 clients to outperform the competition. Mindtree takes an agile, collaborative approach to creating customized solutions across the digital value chain. Our deep expertise in infrastructure and applications management helps optimize your IT into a strategic asset.
www.mindtree.com

TERADATA

Every day, millions of new conversations, transactions, ideas, and opinions are added to your collective data. Some businesses choose to ignore the data. Others use it to ignite new strategies, uncover new opportunities, and create better processes. The world calls these companies leaders, visionaries, market disruptors. We call them customers.
www.Teradata.com/consumer-goods