



PERSPECTIVE

Perspective: Digital Transformation in Wholesale Distribution – 2016 Supply Chain Insights

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IN THIS PERSPECTIVE

This IDC Manufacturing Insights Perspective looks at IDC Manufacturing Insights' recent 2016 *Supply Chain Survey* results as they pertain to the wholesale distribution industry and is a companion piece to both the overall IDC Manufacturing Insights manufacturing supply chain survey report and the additional subsegment reports within manufacturing that we define as asset-, brand-, engineering-, and technology-oriented value chains. As we note in the other reports, the focus of this year's *Supply Chain Survey* was to begin to get a practical understanding of where companies are headed in terms of the adoption of digital technologies and the areas where we would expect to see potential disruptions.

The notion of digital disruption is a provocative one that IDC has been championing for the past few years following the introduction of our 3rd Platform concept in 2013 and the prediction that by 2018, fully *one-third of all industry leaders will be disrupted by digitally enabled competitors*. When one considers that 52% of the Fortune 500 companies listed in 2000 are no longer in business, this prediction strikes a rather ominous note. Defined as "the approach by which enterprises drive changes in their business models and ecosystems by leveraging digital competencies," IDC views digital disruption through the lens of a number of distinct transformational areas, as illustrated in Figure 1.

FIGURE 1

Digital Transformation Areas



Source: IDC Manufacturing Insights, 2016

These areas of transformation don't map 1:1 to business functions clearly; so as we discuss the implications of IDC Manufacturing Insights' 2016 *Supply Chain Survey* for wholesale distributors, we focus quite a lot on operating model transformation and also tangentially touch upon both omni-experience and information transformation.

Note: All numbers in this document may not be exact due to rounding.

Implications from the Survey for Wholesale Distributors

Although in past IDC reports on wholesale distribution industry we have characterized the industry as a "laggard," in terms of both technological adoption and the modernization of business processes, that somewhat pejorative assessment is beginning to shift. Notably, the adoption of cloud applications, the use of analytics to manage very large data sets, and the deployment of 3D printing as a supplement to traditional spare/repair parts inventories are now commonplace. Though we had fallen short of characterizing the wholesale distribution industry as a technology leader, it's clearly making progress. When one considers that much of this industry is made up of small mom-and-pop shops, that's a not inconsiderable achievement.

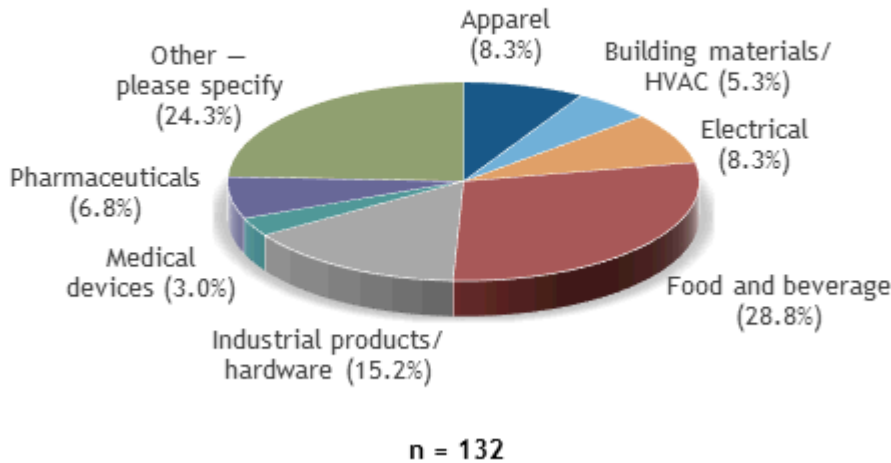
Demographics

There were 132 responses to IDC Manufacturing Insights' 2016 *Supply Chain Survey* from wholesale distributors across a number of microverticals, with food and beverage and industrial products/hardware as the largest of those verticals (see Figure 2).

The respondents were also distributed across small (47%), medium-sized (23%), and large (30%) businesses. Although the survey under consideration in this document is principally about the supply chain, in the case of the wholesalers, we did allow sales and marketing employees to respond as well.

FIGURE 2

Respondents by Industry



Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

Drivers of Change, Priorities, and Quality

As we have seen for both manufacturing and retail respondents to this survey, wholesalers also value product quality (43%) above cost (28%) and service (29%): This doesn't mean the latter two aren't important – just that they're not the most important. In a business as "reputation" based as wholesale distribution, I'm a little surprised that service didn't rank more highly; but as a number of manufacturing clients of IDC always say, the key to a strong distribution partner is in the quality of the parts it sells.

In terms of drivers of change, it's pretty clear that the key challenges are related to finding new business while protecting existing business (see Figure 3). Most wholesalers we speak with are very concerned about competition from nontraditional channels (e.g., home centers) and online channels (think Amazon) and are looking for ways to drive growth – domestically, where possible, and also from international opportunities.

FIGURE 3

Drivers of Change in Wholesale Distribution

Q. Please rank the top 5 areas driving change in your business.



n = 132

Note: Ranking is based on a scale of 1-5, with 1 being the most important and 5 being the least important.

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

Although not new necessarily, extending their business model into light manufacturing or assembly makes a lot of sense and may make much more sense in the future as manufacturers grapple with how best to adapt their supply chains to the possibility of material direct-to-consumer (D2C) business. At IDC, we have speculated that the wholesale distributors could be a logical place for manufactures to manage their D2C business, at least in the short term as major changes to existing supply chains will take time, and a significant growth opportunity for the wholesale industry.

That selling directly to the consumer makes the top 5 is curious, given that wholesale distributors already cater to consumers in their stores. We tested the point with a couple of wholesalers, and they all had the same reaction – that the response was a proxy for selling online and that is still something that is often unintuitive in an industry that so values direct human interaction, though, as the customer base for wholesalers inevitably transitions to younger generations, the ease of online and the inherent familiarity make it a forgone conclusion.

The business priorities for the wholesale distributors mirror other industries, with both cost and waste reduction as the top response in the near term and in the medium term (see Table 1). As a business with razor-thin profit margins, efficiency is a necessity to compete successfully. Beyond cost, customer centricity shows strongly for an industry, as we noted previously, that values direct customer contact. Wrapping up the top 5 in the near term are better collaboration with suppliers and responsiveness. Again, better collaboration with suppliers and responsiveness go hand in hand with the importance of meeting customer needs in a timely fashion.

TABLE 1

Top 5 Business Priorities in Wholesale Distribution: Next 12 Months and Next 2-3 Years (% of Respondents)

Q. *What are the top 5 priorities for your business?*

Priorities	Next 12 Months	Next 2–3 Years
Reduce costs/eliminate waste	56	42
Become more customer centric	29	23
Improve collaboration with suppliers and customers	27	27
Respond more quickly to supply disruptions	26	22
Respond more quickly to demand changes	25	19

n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

Beyond 12 months, *improve product innovation* will make it into the top 5 at 28%, suggesting that wholesalers may see their role evolving in the industry.

There were other responses, but these were the top 5 when considering both the next 12 months and 2-3 years out. We offer three observations:

- Although product quality, as we've articulated, reigns supreme in wholesale, that does not mean that businesses aren't focused on ways to make their operations more efficient. Though it declines as a priority as the timeline moves, the role of business capabilities (and the application of digital technologies) will still be laser focused on being as cost efficient as possible.
- Responding to supply and demand changes is more important over the next 12 months than it will be in the next 2-3 years, suggesting that wholesalers believe that they have acquired, or will shortly acquire, the capabilities they need.
- More than any other priority, product innovation grows in importance as we move to 2-3 years out. The reality is that wholesale distributors, given their laser focus on growth opportunity, are looking for ways to be more innovative, either in the products that they sell or in the ways that they sell the products.

Where Will the Focus Be?

It's then fair to ask, Where will wholesale distributors be focusing their improvement efforts over the next year? We've only presented the top 6 responses as the percentages drop significantly below that. What seems clear is that wholesalers still view their systems with some suspicion and that improvement opportunities remain quite apparent to them (see Figure 4).

FIGURE 4

Key Focus Area

Q. Given the priorities from the prior question, what will be the key focus areas for improvement in your business over the next 12 months?



n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

We asked the same question for two to three years out, and although the percentages changed slightly, the areas of focus did not. Further, we also asked about how wholesale distributors view their supply chain systems relative to their competitors as a way to further gauge "opportunities" for improvement. We've categorized the areas into two groupings, summarized in Table 2. Functional areas with solid capability means that less than 50% of respondents self-assessed themselves as average; areas with improvement opportunity means that more than 50% of respondents assessed themselves as average.

If you look at the two categories, the former consists of things that wholesale distributors have had longer-term familiarity with and have received investments in both process and technology; the latter consists of newer areas and functional capabilities that wholesalers must improve on to remain competitive.

As we transition to the digital elements of the survey, it's useful to note that as we've discussed drivers of change and priorities, the dual notions of omni-channel and operating model transformation underpin the discussion in a fundamental way. Certainly, digital tools can help enable many of the improvements that wholesalers crave.

TABLE 2

Improvement Areas

Q. How would you rate your capabilities relative to your competitors?

Modality	Functional Area
Solid capability	Supply planning, order management, direct procurement, TMS, WMS, field service, and store operations
Improvement opportunity	Global trade management, managing new product innovation, S&OP, demand sensing, indirect procurement, spare parts management, reverse logistics

n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

Digital Disruption

We're not going to delve into all of the areas of potential digital disruption painted by the results of IDC Manufacturing Insights' 2016 *Supply Chain Survey*; rather we're going to focus in on a few of the highlights discussed in the sections that follow.

Cloud and Business Network Adoption

Table 3 illustrates the percentage of wholesalers that are using or plan to use cloud applications across a broad range of supply chain applications. There isn't a great deal of difference across the various application areas, though the immediate growth of cloud across both supply chain planning and execution is quite dramatic. In the IT spending numbers that IDC publishes for the supply chain, we do see equally dramatic growth rates for cloud at almost 20% year on year versus on-premise at slightly less than 5%. The latter is off a much larger base, of course, but at these kinds of growth rate disparities, we do expect the "lines to cross" by about 2020.

TABLE 3**Cloud Deployment by Application (% of Respondents)**

	Already There	Within 12 Months	No Current Plans
Demand planning and forecasting	19	29	41
Supply planning	22	20	46
S&OP	14	21	49
Order management	21	27	42
Transportation management	17	27	44
Warehouse management	17	21	49

n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

We have tended to "brand" wholesale distributors as technology "laggards," though in terms of cloud adoption, these businesses are at comparable adoption rates to other manufacturing and retail industry segments. In terms of capabilities, many wholesale distributors are coming to cloud applications from nothing – in other words, not upgrades or migrations, but acquiring capabilities that the wholesale distributors did not previously possess. In this sense, cloud is transformational for many wholesalers.

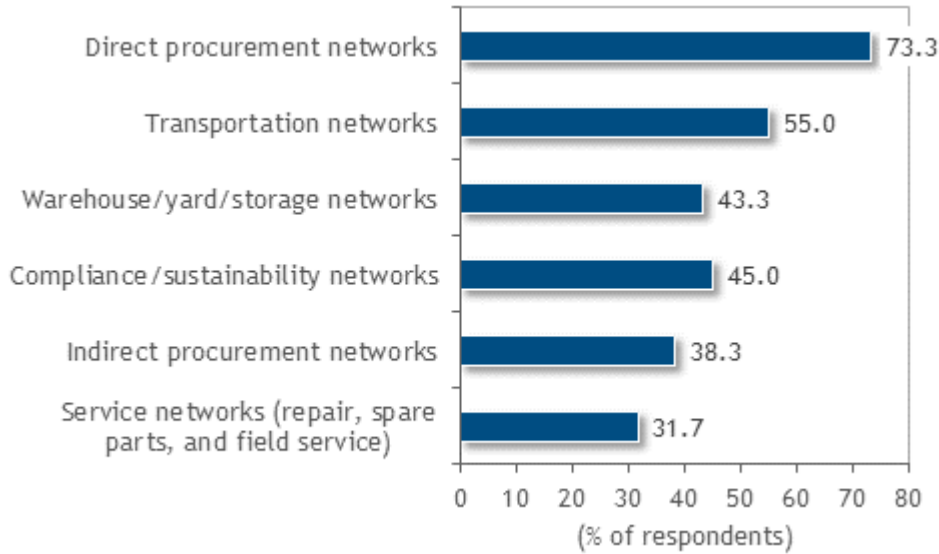
The ability to enable capabilities via the cloud is a big deal, but there is also the double benefit of engaging comprehensively in networks. These days, in almost all business segments, there is significant value in the "ecosystem." As business networks proliferate, and both suppliers and customers collaborate more across a broad set of business processes, the accessibility of cloud becomes a transformative lever and a way to drive operating model change.

With regard to networks, it has been the opinion of IDC Manufacturing Insights that few things are as potentially transformative as broad participation in networks, in terms of both the visibility they provide and the ability to conduct business at the speeds necessary for today's customer/consumer. Of the wholesale respondents to the survey, 46% are participating in B2B commerce networks. It's probably higher than that, but we're focused on supply chain in this document. More interesting, though, is the fact that companies participating in networks are doing so across a broad range of business processes (see Figure 5).

FIGURE 5

Breadth of B2B Network Participation

Q. Please indicate where you participate in B2B networks?



n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

Procurement networks lead the charge, as we had expected, because they have been around longer, but we also see transportation networks, service networks (both internal to the factory and external field servicing), and compliance/regulatory networks. Certainly, it's important for any wholesale distributor considering participating in a network to be clear about the things it expects to gain from the said participation, but the ability to conduct business more seamlessly, with greater visibility and access, is transformative. As one business executive noted to us recently, "Point-to-point relationships are too slow; if I need to connect to a new supplier, I want a network where it is already a participant."

A further implication for wholesalers specifically is the role they play as both a customer and a supplier. Finding suppliers for the things that the wholesalers need more easily and transparently is important, but the ability to be exposed to a whole ecosystem of potential new customers to sell to is an equally, perhaps more, important capability.

Beyond the obvious benefits of speed and visibility, almost 65% of wholesale B2B network users report significant cost savings, 44% of them report easier collaboration with suppliers, and 52% of them have found new business opportunities. Consequently, B2B networks are both a facilitator for operating model transformation and an enabler of omni-channel experience. As we close the conversation on business networks, it's notable that wholesale identified new business opportunities from participation at a much higher level than did any other industry segment, reinforcing the point about growth discussed previously.

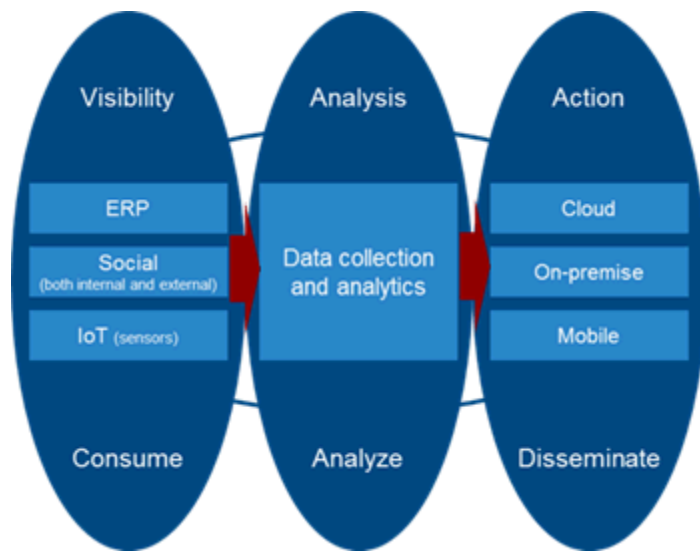
Analytics

The ability to collect, organize, and extract value from modern data sets is critical for all businesses and sits at the center of the value realized from the systems and the sensors that are the source of that data. We have articulated this notion in a separate report on supply chain control towers, so we'll not repeat that in this document other than to illustrate the notion that analytics really is the engine that drives all of this digital transformation (DX) (see Figure 6).

When asked to self-assess the analytics capability of their supply chains, 21% of wholesalers believed themselves to be best in class (we comprehensively analyzed just about all data), 45% of wholesalers believed themselves as above average (we analyzed most data), and 32% of wholesalers believed themselves as just average (where capabilities are modest). Self-assessments tend to skew to optimism, so there is reason to believe that analytics capability may not be that developed.

FIGURE 6

Central Role for Analytics



Source: IDC Manufacturing Insights, 2016

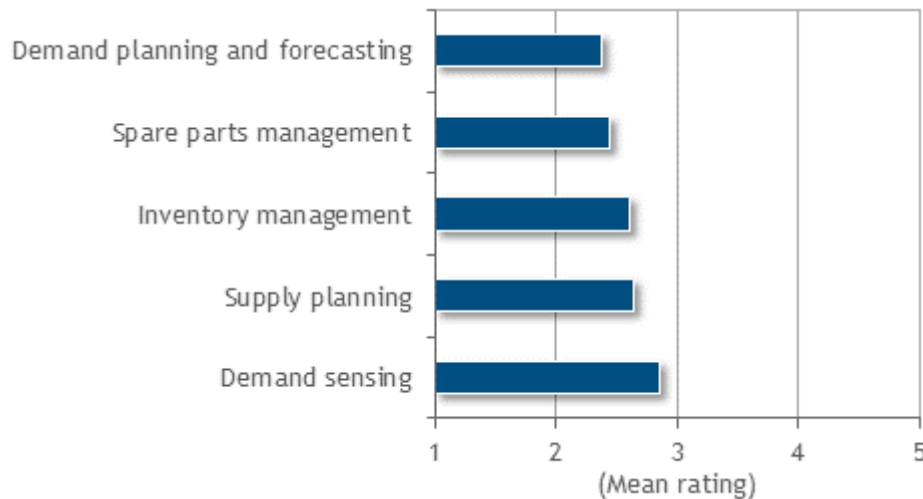
Wholesalers (42%) are using analytics embedded in applications as expected, but a much higher number of wholesalers (71%) are using an analytics tool or platform than expected. This may be a definitional issue where even a small standalone analytics facility gets counted. But it is our sense that when considering a true, fully enabled analytics platform, the number remains much lower. In terms of overall benefits, it has been primarily about improving service levels (64%), reducing costs (58%), and driving productivity (56%), with those benefits accruing across a number of supply chain functions (see Figure 7).

Given the complexity inherent to the wholesale distributor, particularly in terms of the very high number of stock-keeping units (SKUs) carried by even small businesses, the responses in Figure 7 both make sense and are encouraging. They make sense because that's where the key business challenges, at least from a supply chain perspective, sit; they are encouraging because areas like demand planning, spare parts management (and related service life-cycle capabilities), and inventory management are those things that will define the successful wholesaler, at least for the near term.

FIGURE 7

Analytics Benefits

Q. *Where are you finding the most value from your analytics capabilities?*



n = 132

Note: Ranking is based on a scale of 1-5, with 1 being the most important and 5 being the least important.

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

3D Printing

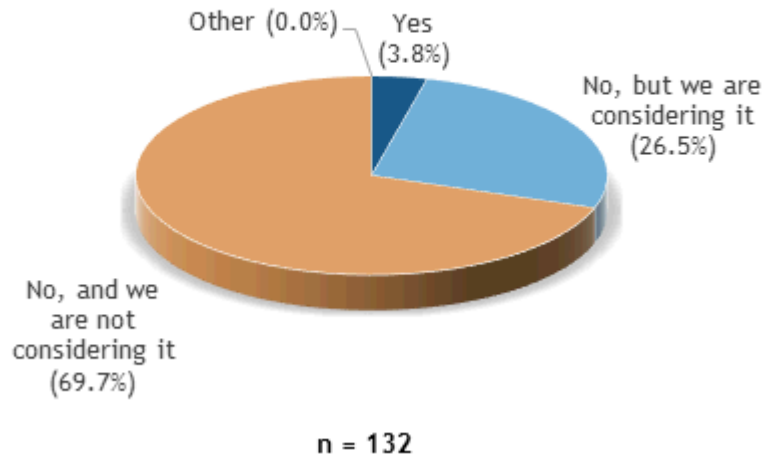
The role for 3D printing is an intriguing one for wholesale distribution, given high SKU counts across many categories that do not move all that quickly. It's particularly interesting for maintenance, repair, and operations where part availability and speed of delivery are routinely critical. Yet, in the supply chain, enthusiasm (and plans) for the technology is tepid.

About a quarter of wholesalers are considering 3D printing, but very few are actively using the technology, with the majority having no plans (see Figure 8). The use of 3D printing tends to skew heavily to the larger enterprise company, so that we have a number of small wholesalers in the data may be affecting the results, but regardless, we see 3D printing as a really interesting technology for this industry and something that wholesalers should be actively looking at, particularly as the prices of equipment come down. But even if owning sophisticated 3D printers is unrealistic, there are a number of ways to access capabilities from external parties (e.g., a UPS).

FIGURE 8

3D Printing

Q. Does your company use 3D printing today in the supply chain?



Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

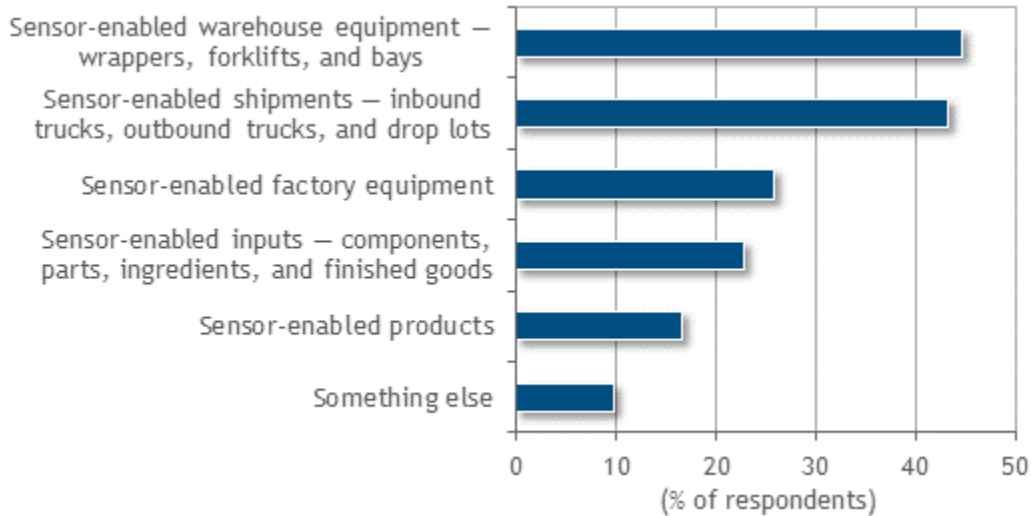
Internet of Things

The last topic we would like to touch on in this document is Internet of Things (IoT). While sensors have been in use in the supply chain for decades, the modern capability (and cost) of sensors, along with the accompanying analytics capabilities, makes them an intriguing set of technologies to drive change for the wholesale distributor. Most of the early use cases for sensors remain the purview of internal business process, though we are seeing some applications on sold products. The responses from the survey are summarized in Figure 9.

FIGURE 9

Incorporation of IoT into the Supply Chain

Q. How has your company incorporated IoT into the supply chain today?



n = 132

Source: IDC Manufacturing Insights' *Supply Chain Survey*, 2016

The analytics point is an important one though, as the sensor (the generator of data) is only a part of what makes up an effective decision-making/action-taking system (refer back to Figure 6). Whether advanced analytics, machine learning, or cognitive computing, the ability to generate a positive business outcome depends on both the availability and accuracy of the data and the ability to analyze data in real time for actionable business insight and then actually take an action. Otherwise, it's all just an academic exercise.

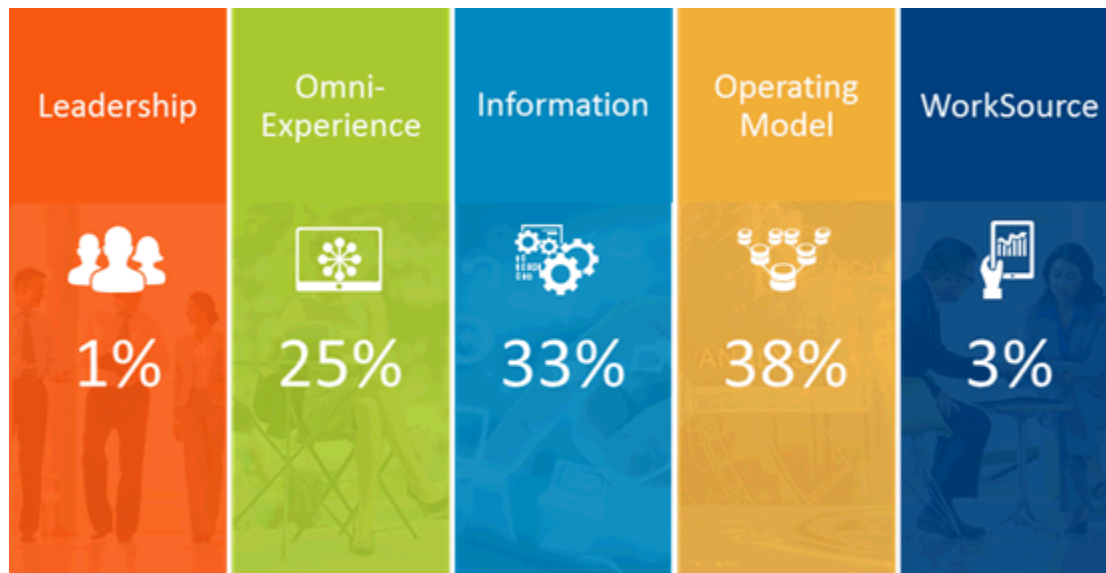
The good news is that wholesalers are starting to do just this and are seeing benefits accruing as a result. When asked about the benefits of IoT in the survey; respondents allowed that they are seeing better inventory availability (43%), improved/actionable shipment tracking (48%), and improved customer service (40%). IoT appears, for now, to be primarily about operating model transformation, though one can certainly see the writing on the wall for a dramatic opportunity to also disrupt how customers engage and buy from wholesale distribution.

Guidance/Actions to Consider

We've weaved guidance throughout this Perspective, so we'll not repeat that in this section. The broader "reminder" as we note in the overall survey report is that "technology for technology's sake" is not useful. It's about using digital technologies to solve business or, in this case, supply chain problems. It's inherent in the IDC definition of DX – driving changes in manufacturer business models and ecosystems. We've touched on the notions of omni-channel and operating model transformation throughout this document, and it's useful to note that IDC projects the latter category to carry the largest share of investment by 2020, with the former having the third-largest share of investment (see Figure 10).

FIGURE 10

Digital Transformation Spend Projections



Source: IDC's Digital Transformation Spending Guide, 2015

If one views information as a facilitator, then it's the operating model transformation that offers the most potentially profound changes for the supply chain. The actions, therefore, are about how to engender positive change in both the functional supply chain and the business as a result of using digital technologies.

Specifically:

- Take an "outside in" approach to digital transformation strategy – look to technology providers and industry competitors as well as "reach" competitors (in other industries).
- Open up operating model and omni-experience innovation to the ecosystem.
- Evaluate the relative maturity of your organization.
- Take a programmatic approach to governance.
- Balance investment priorities across readiness, return, and relevance.
- Partner with IT to build capability, cadence, and resiliency.

LEARN MORE

Related Research

- *Business Strategy: 2016 Supply Chain Survey Insights* (forthcoming)
- *IDC FutureScape: Worldwide Manufacturing Supply Chain 2016 Predictions* (IDC #259782, November 2015)
- *IDC MaturityScape: Supply Chain risk and Resiliency* (IDC #259369, October 2015)
- *Business Strategy: The Evolution of Manufacturing Supply Chains – Networked, Collaborative, and Transparent* (IDC Manufacturing Insights #MI255229, April 2015)
- *Business Strategy: Arguing the Case for Supply Chain Resiliency in 2013* (IDC Manufacturing Insights #MI240502, April 2013)

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