



# The Internet of Things: Finally Finding A Home In Retail?

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# Key Report Takeaways

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- A shift from emphasis on inventory management to the customer experience (though inventory still matters a lot)
- The biggest opportunity for IoT remains in the store
- Visibility into customer behavior AND inventory. Non-transactional signals matter a lot
- Many opportunities missed. Retailers ignoring low-hanging fruit in search of a magic bullet
- From the data, it became apparent that IT and Line of Business execs should work together to flesh out practical use cases





# BIG PICTURE



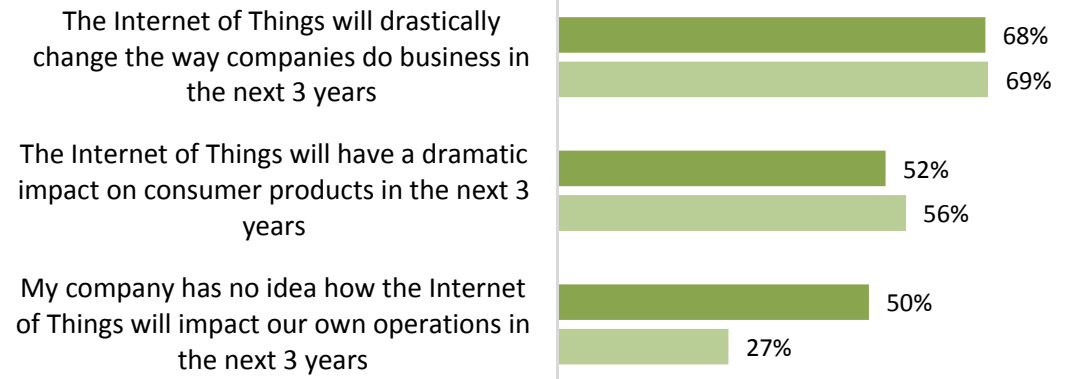
## Research Overview

What Can The IoT Really Do For Retailers?

# Transform The Business? Maybe.

## 'Strongly Agree'

■ 2019 ■ 2018

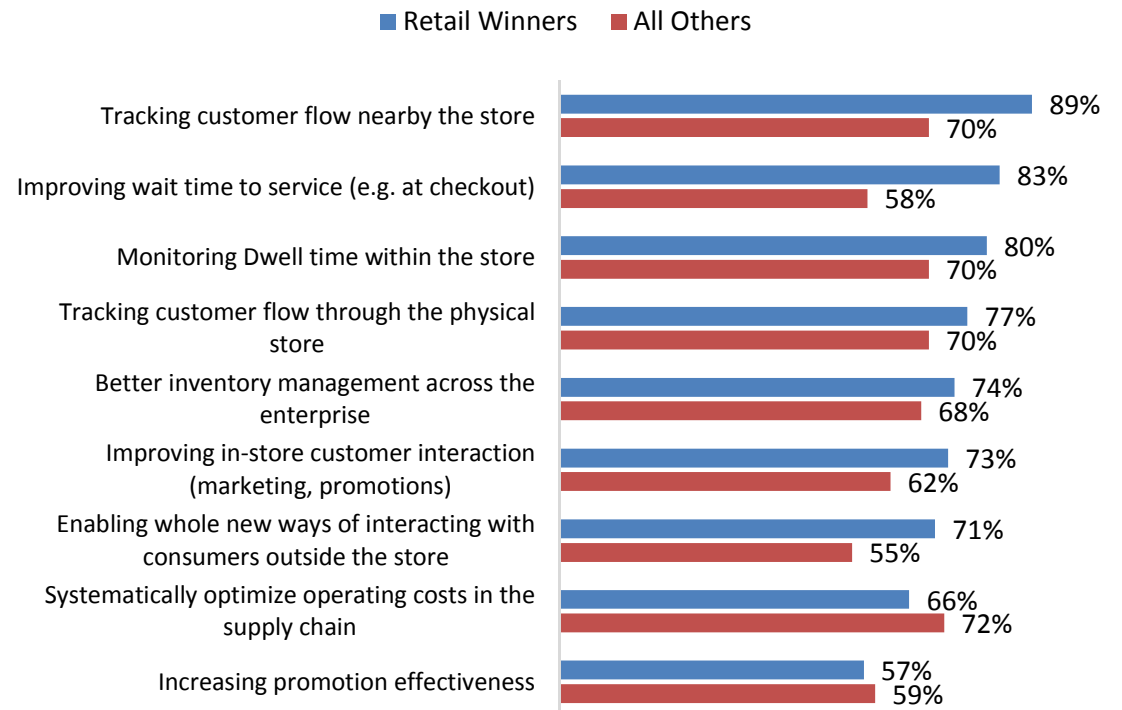


**RSR believes that the larger number of respondents who acknowledge “they have no idea how IoT will impact operations is a sign of honesty. It is healthy to admit that you don’t know what you don’t know!”**

# Retail Winners Have Some Big Ideas For The Store

*Retail Winners ascribe higher value to virtually every current IoT capability we put before them: from interacting with customers outside the store to tracking their activities once nearby - all the way into the myriad ways they can improve shoppers' experiences once within the store's four walls*

## How Would You Rate The Importance Of IoT To Support The Following Capabilities In Retail? ('High Value')

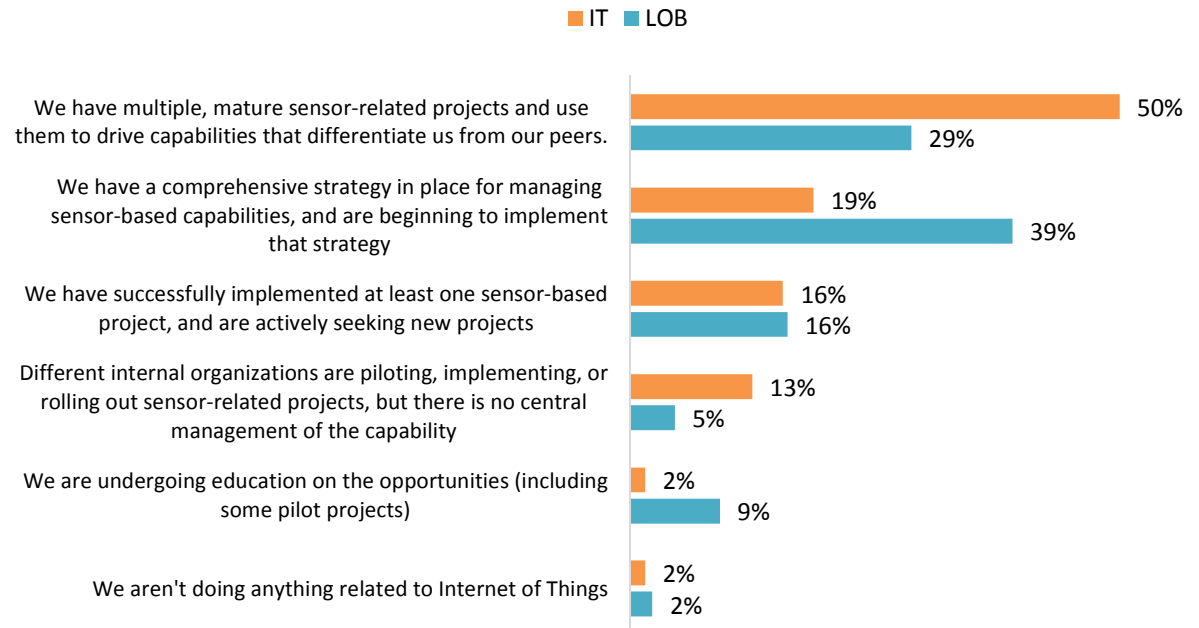


# IT vs. Line Of Business: Disconnects Abound

IT is operating what are apparently “secret” projects, while LOB executives have a “secret strategy.” This is thematic to the whole report.

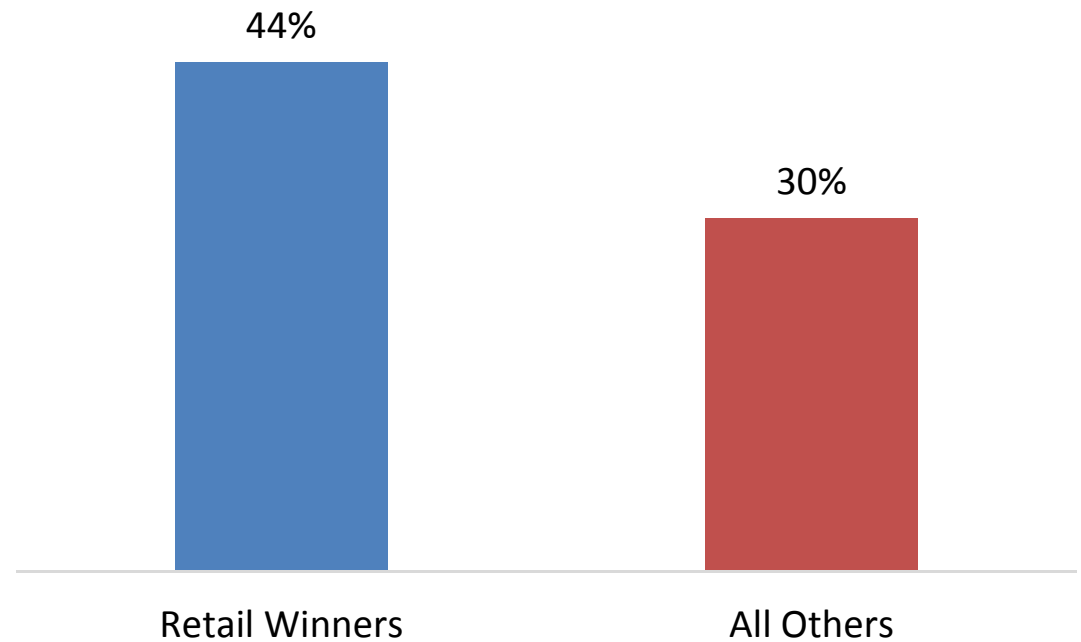
It shows a real lack of communication.

## What is Your Company's Current Level Of Experience When It Comes To Internet of Things?



**Winners, In Particular, Are Experimenting**

**'We Have Multiple, Mature Sensor-Related Projects And Use Them To Drive Capabilities That Differentiate Us From Our Peers'**





# Business Challenges

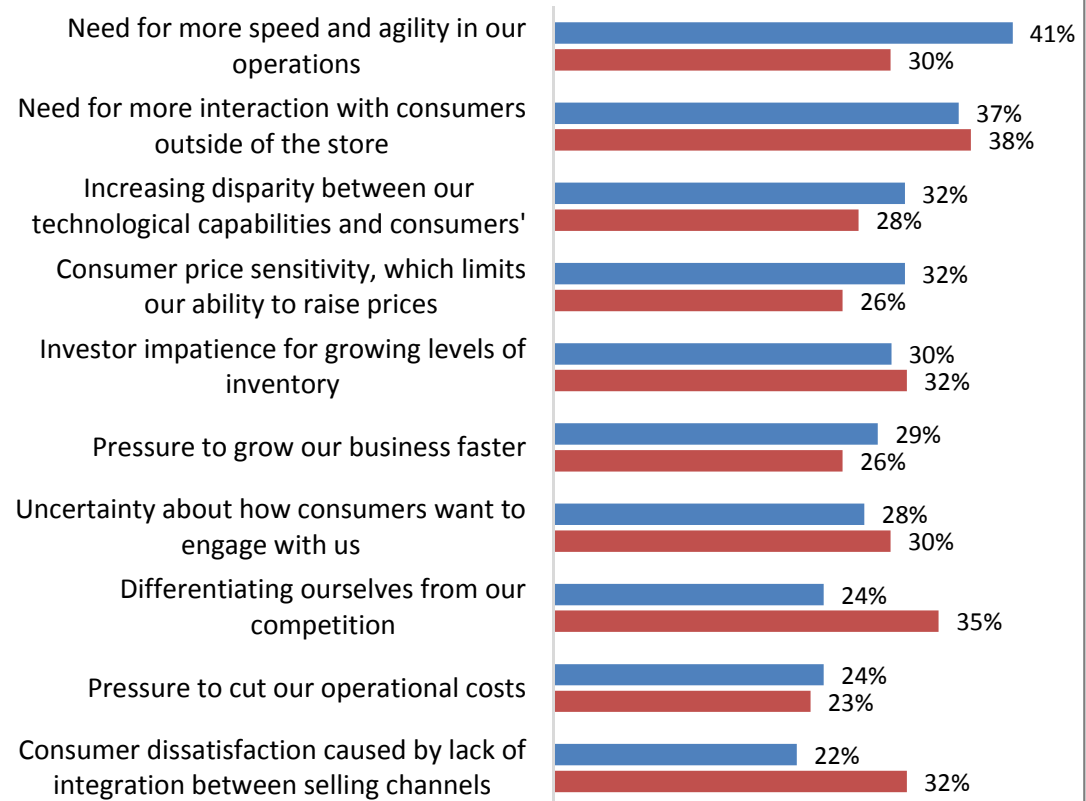
Winners Embrace the Need For Speed, And Inventory Re-emerges As A Universal Issue



# Winners See The Need For Speed

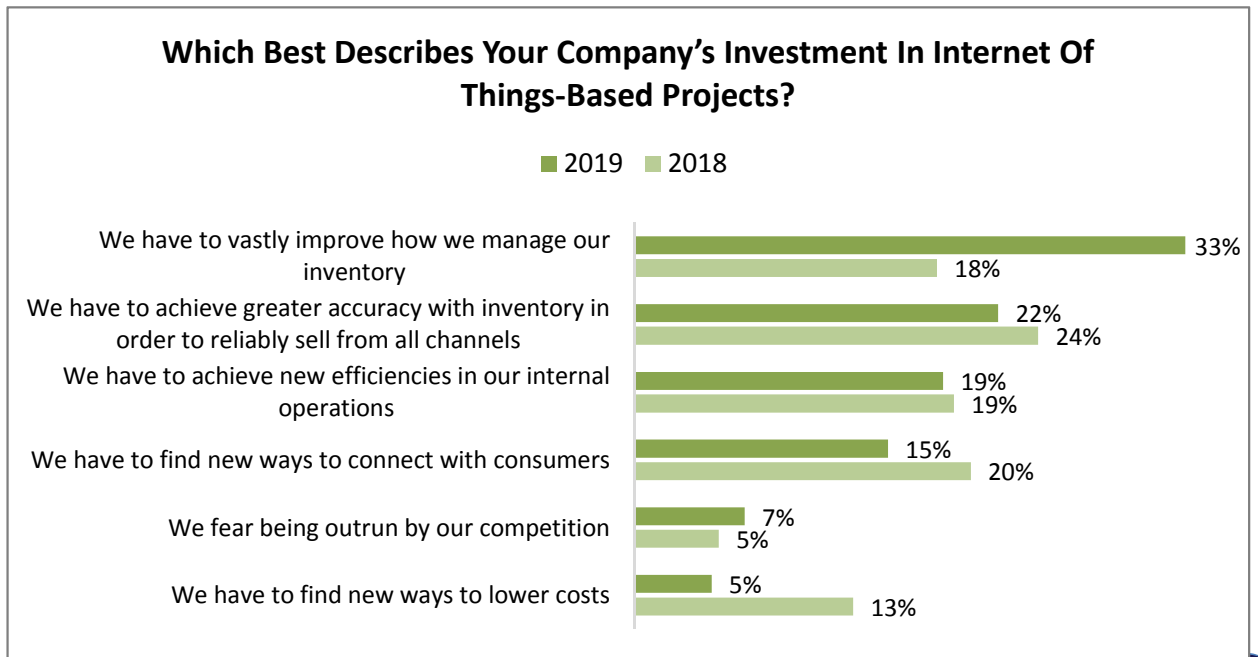
## Top 3 Business Challenges That Drive Interest In The Internet Of Things

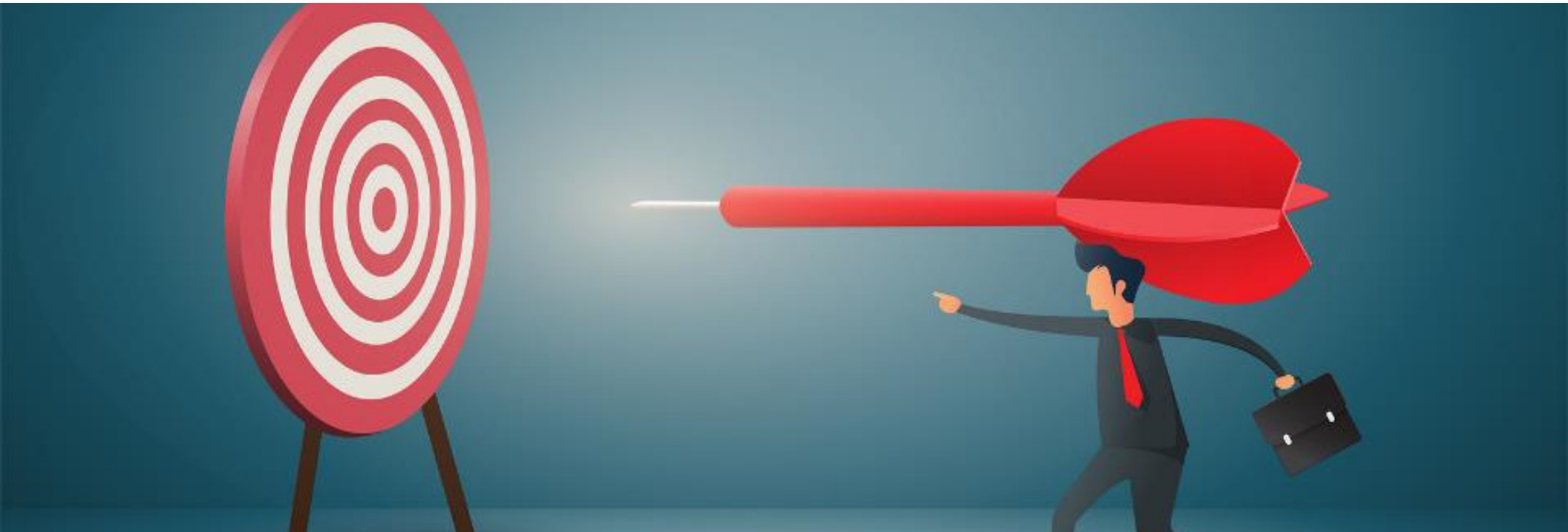
■ Retail Winners ■ All Others



# Inventory Re-Emerges As A Key Issue

*...the true promise of IoT technologies has always been about generating better information. As it relates to inventory, better information can help retailers make better decisions about where a certain product should best be allocated to increase its chance of sale, or to decrease its distance to fulfillment – or to minimize its impact upon returns*





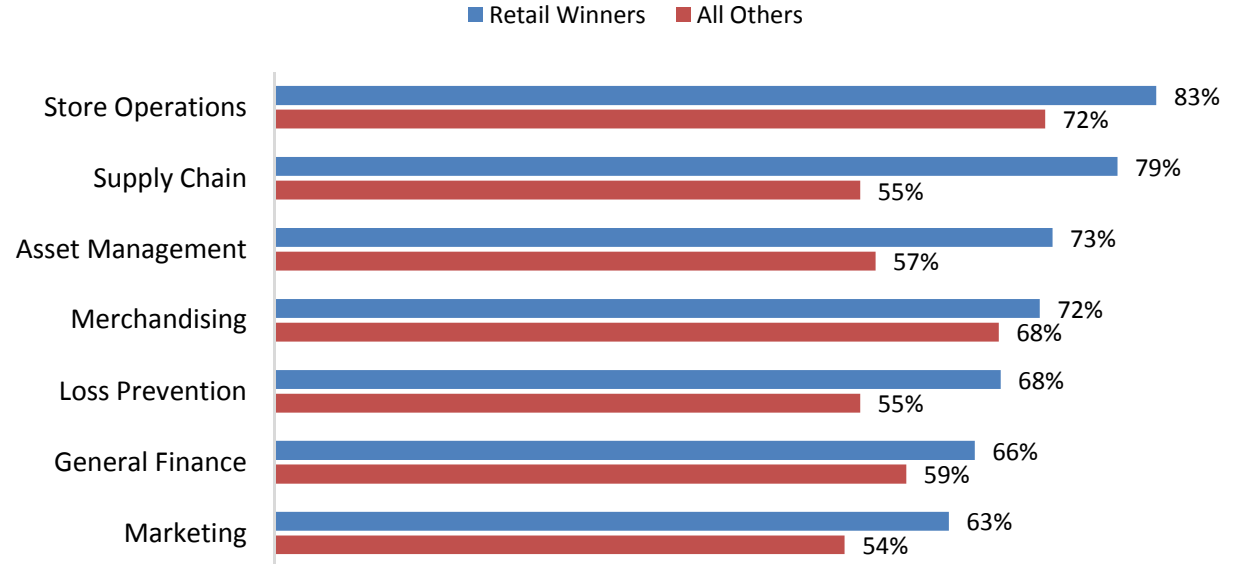
# Opportunities

The Store Is The Focal Point, Both For Customer Engagement And For Inventory Management

# The Store, Closely Followed By Supply Chain

*All retailers see stores as the biggest winner in the IoT arms race, but Winners even more so. Smarter stores will clearly operate in a more effective manner once these new tools take hold – but for Winners, this advantage only narrowly outweighs the benefits that will be brought to the Supply Chain, as well. Stores – and the Supply Chain that feeds them – are the 1,2 IoT combo punch that Winners plan to put together, and this explains their earlier suggestion that effective use of IoT technologies could help them create significant **competitive advantage***

'A Lot of Organizational Value'

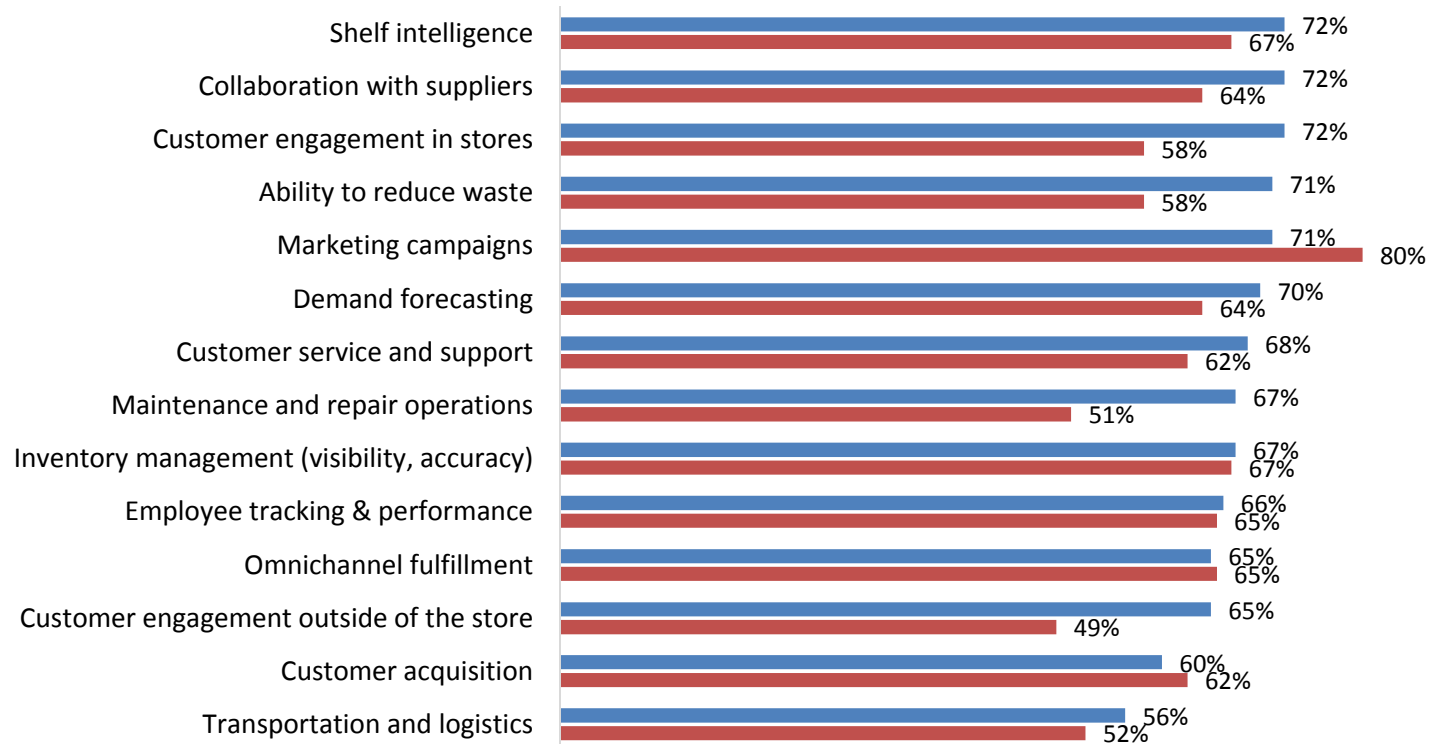




# A Tall Order: Opportunities Everywhere

## 'A Lot Of Opportunity' For Impact From IoT Solutions

■ Retail Winners ■ All Others

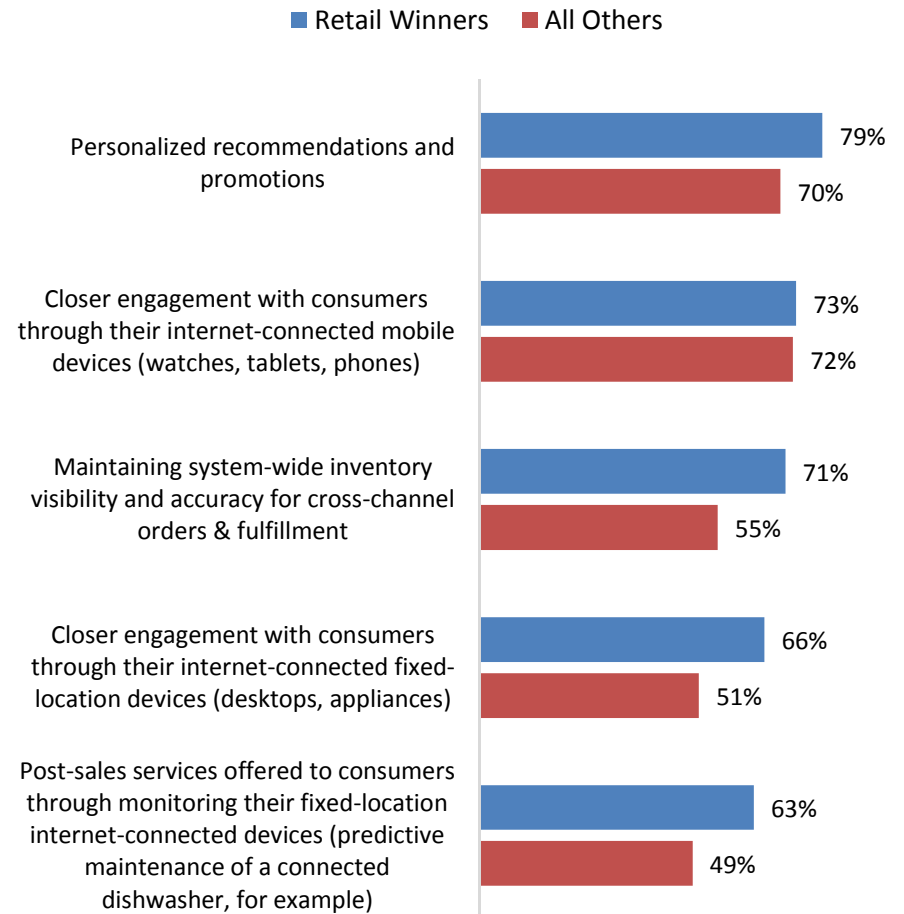


*...Retailers see opportunities for everything from improving customer service all the way through to maintenance and repair procedures are prime candidates for the type of improvement IoT affords. Put simply, retailers – Winners in particular – are expecting to be rewarded for any gambles they take on the Internet of Things.*

***Technologists beware: this is no time for making promises that can't be kept.***

# Particularly For What The Customer Sees

## Top Customer-Facing Opportunities From IoT



## The Bottom Line....

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*For as long as RSR has been conducting research, personalized recommendations and promotions have been a brass ring retailers have been chasing; regardless of our topic of inquiry, whenever it is presented as an option, retailers immediately identify it as their top opportunity.*

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*And yet for all their efforts, the average shopping experience still reveals the goal to be elusive. Personalizing offers to consumers in a truly meaningful way is extraordinarily difficult. It is no wonder retailers are hoping IoT will be the technology that helps them get there.*



# Organizational Inhibitors

Operational Challenges Are Clear, But The Business Case Is Not Obvious Enough

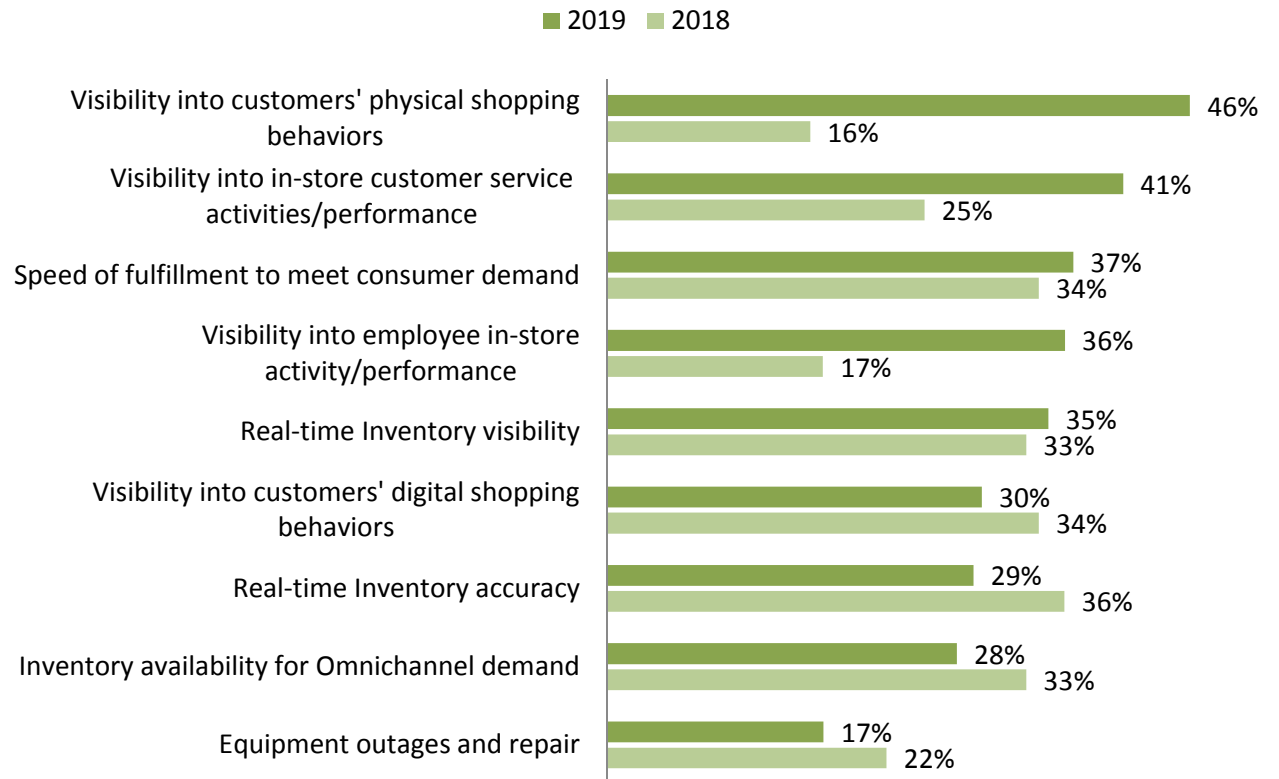


# Retailers Crave Understanding About Customers

*We can see a real spike in an interest in understanding everything about the customer as she wanders through the physical world.*

***We are disappointed that low-hanging fruit like equipment outages and repair are so low on the list.***

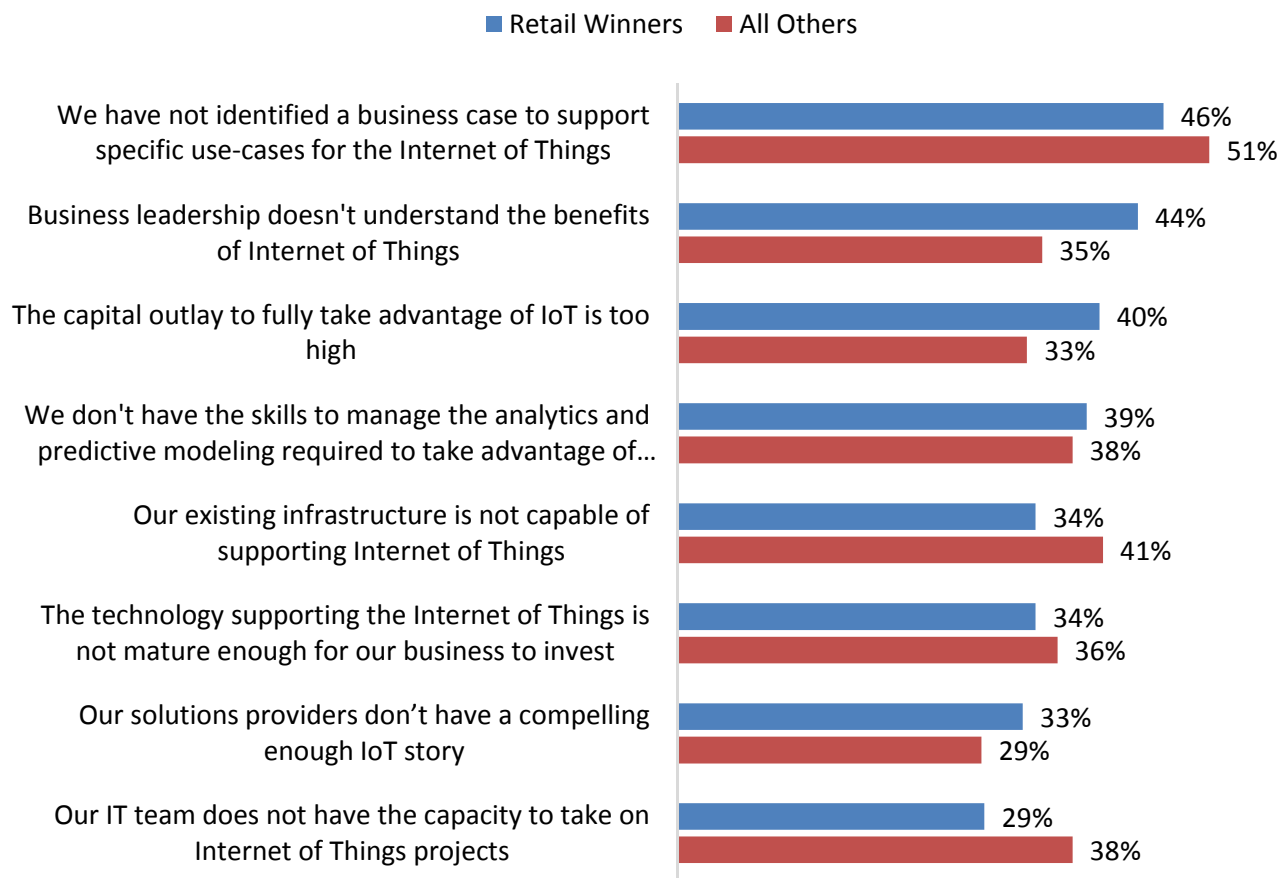
## Top Three Operational Challenges The Internet of Things Can Address



# A Solution Looking For Clear Business Cases

*The long and the short of [it] is essentially, “We can’t find a compelling business case, and our business leadership really doesn’t understand the opportunities enough to spend the money required for a serious project.”*

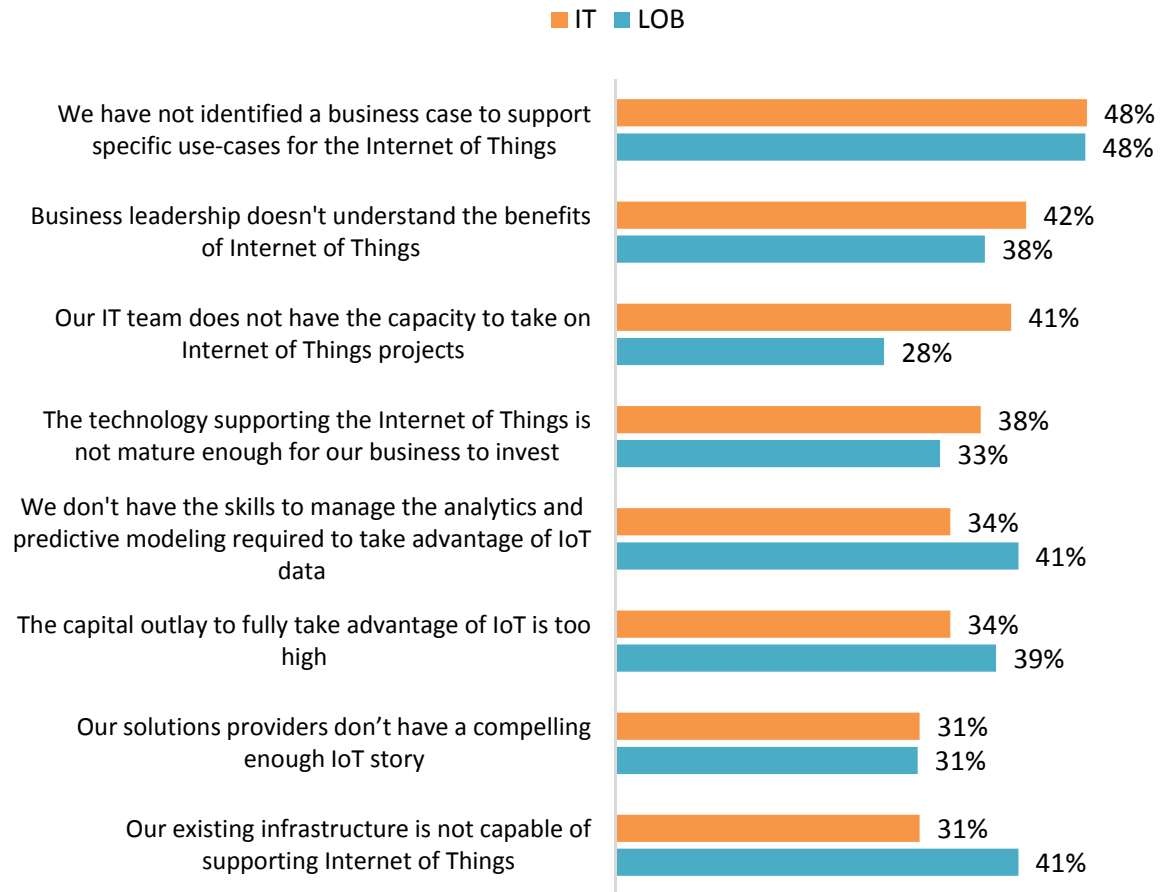
## Top Organizational Inhibitors That Stand In The Way Of Taking Advantage Of IoT Opportunities



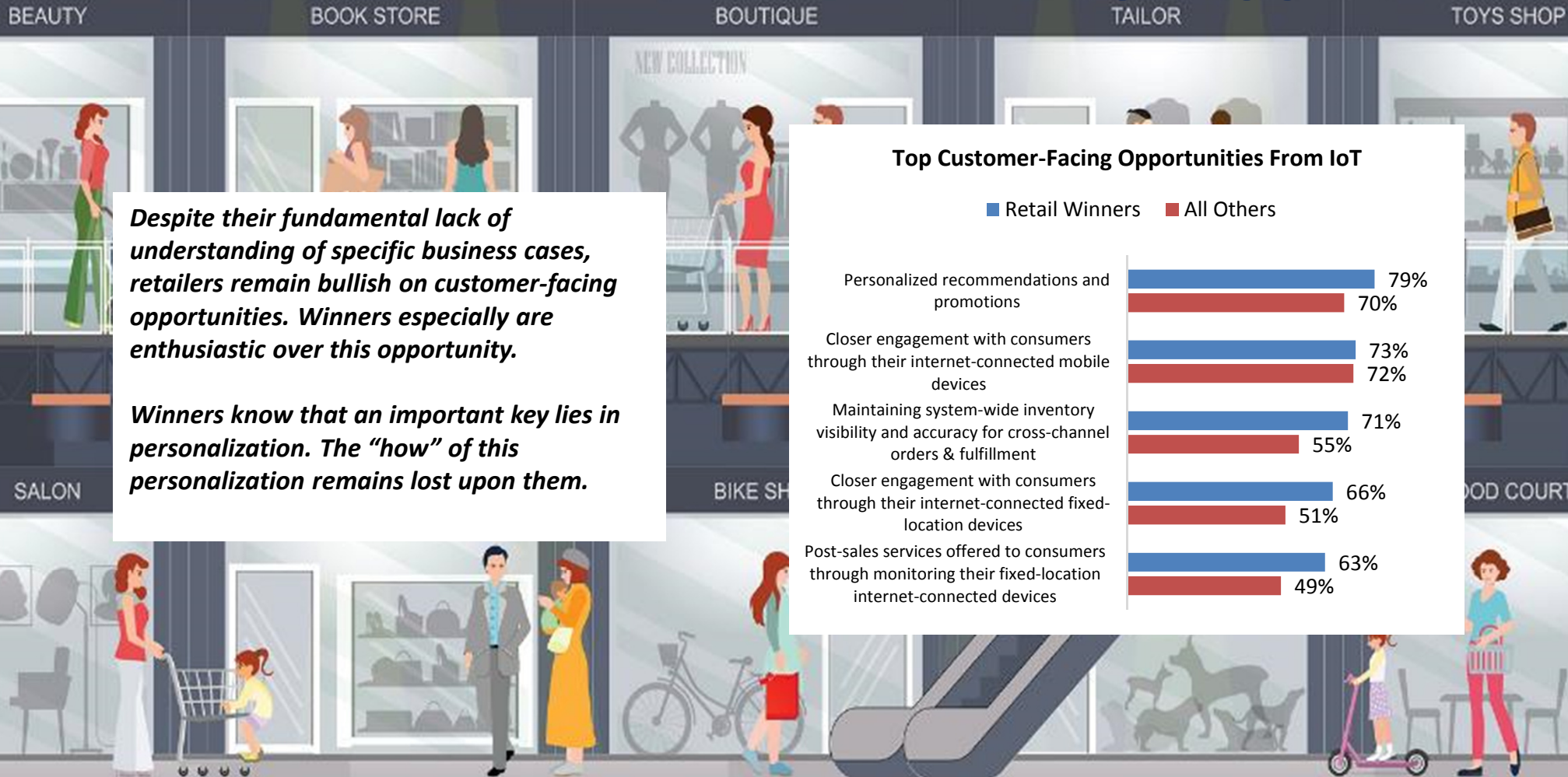
## And IT Personnel Are No Clearer Than Line Of Business Execs

*IT is no clearer about solid business cases than Line of Business (LOB) executives are...they have pilots and experiments going on but they don't get it...they are less concerned with their existing infrastructure's ability to support this non-transactional data than their LOB counterparts. That tells us a lot about **continued business user lack of confidence in their IT groups**; that lack of trust is an organizational inhibitor all by itself.*

### Top Organizational Inhibitors That Stand In The Way Of Taking Advantage Of IoT Opportunities



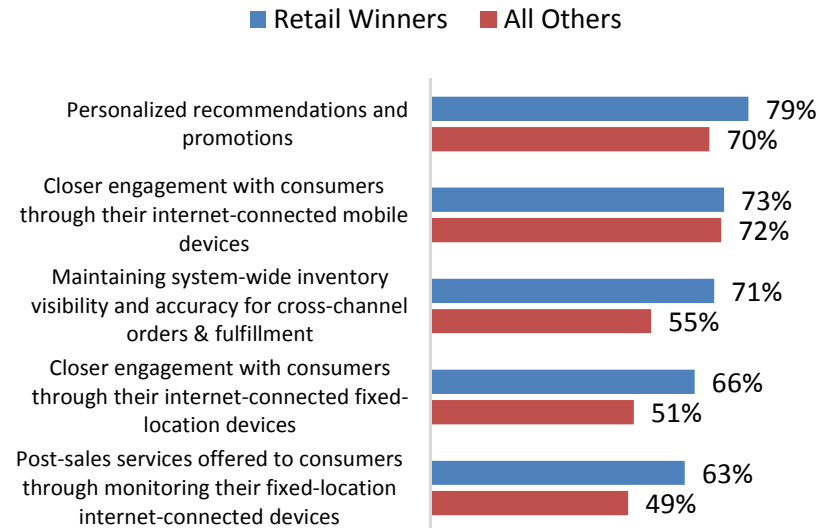
# It's All About The Customer, They Suppose



*Despite their fundamental lack of understanding of specific business cases, retailers remain bullish on customer-facing opportunities. Winners especially are enthusiastic over this opportunity.*

*Winners know that an important key lies in personalization. The “how” of this personalization remains lost upon them.*

## Top Customer-Facing Opportunities From IoT



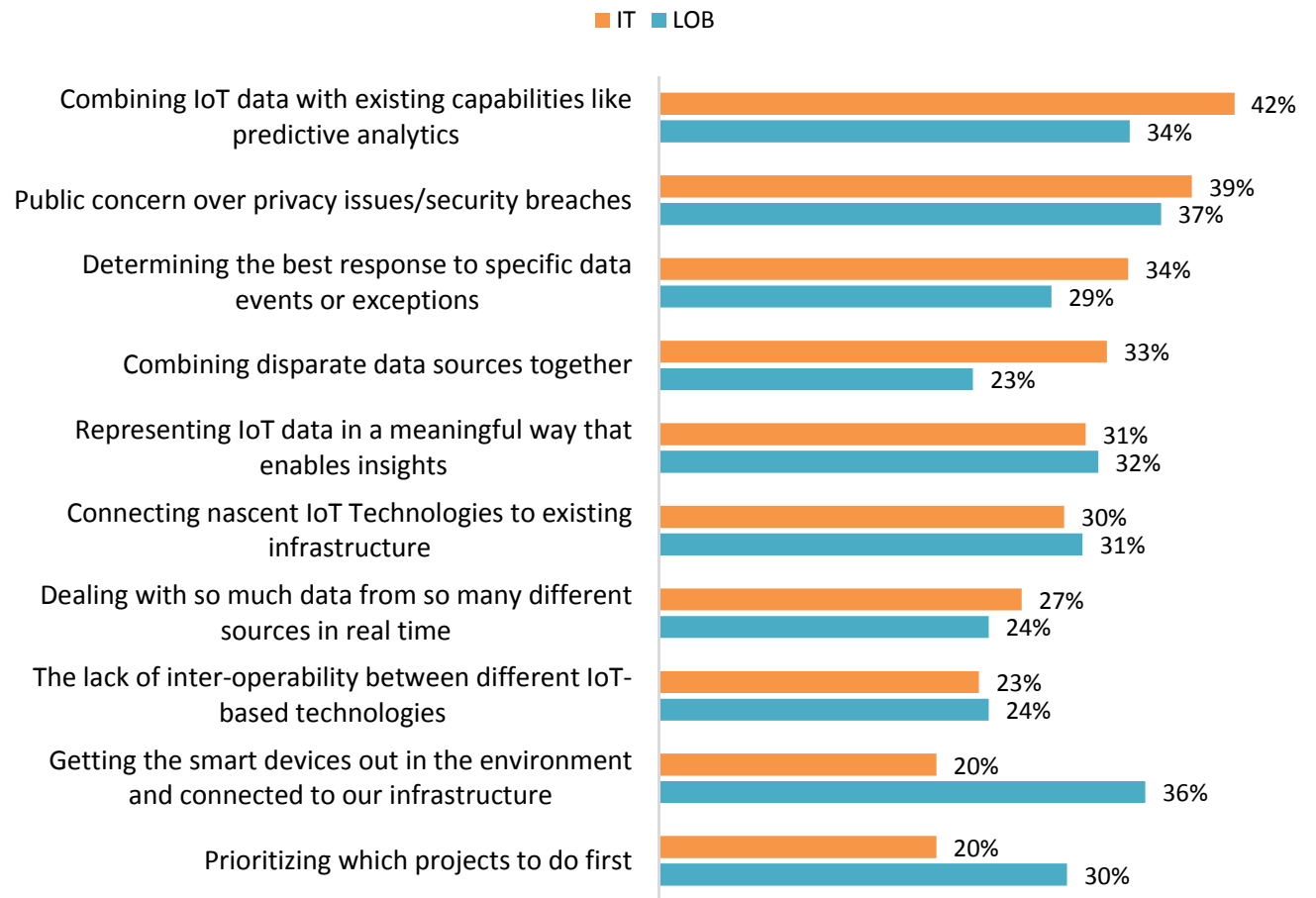


# Everyone Seems To Worry About Everyone Else's Problems

*These misunderstandings do not require spending millions in consulting fees to sort out. Rather, they require different departments to talk to each other, and talk to their potential software vendors. IoT remains the innovation that keeps waiting to take off.*



**Top 3 Technology or Process Barriers to IoT projects**



## Final Thoughts On Inhibitors

- *We are glad to see retailers focusing on the pragmatic outcomes from using IoT data. However, as with the organizational inhibitors we identified, Line of Business executives are more concerned about IT's ability to actually get the projects done, while IT worries about business issues like privacy concerns, and getting IoT data into their existing predictive analytics programs (a challenge they will also face when gaining insights from this data with Artificial Intelligence).*
- *We can't call these attitudes "finger pointing," exactly. It's more like worrying over things retailers cannot control, rather than focusing on the things they can control. Why aren't LOB executives asking IT professionals if it will be hard to get smart devices out into the environment? Why aren't IT professionals getting the business requirements for responses to the data that might be gathered from IoT projects?*
- *Frankly, it all feels rather backwards, and we can't quite understand why the two sides don't just come together to find solutions to these problems, or gain reassurance that the other "gets it" and can solve for it. And, **obviously, a cross-functional team tasked with prioritizing projects is critical for moving forward.***



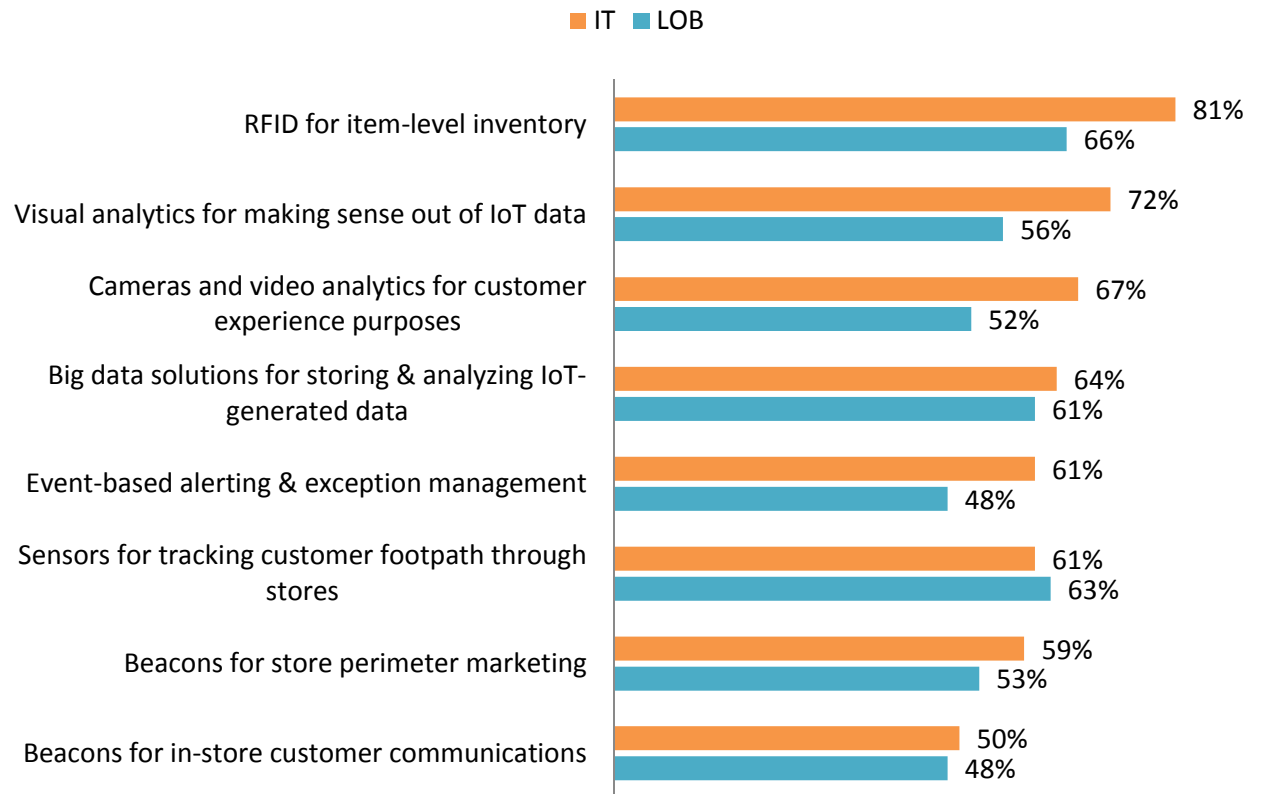
# Technology Enablers

IT As An Under-used Resource, Others Are Over-used.  
And Everyone Loves The Cloud!

# IT Is An Under-used Resource For Determining IoT Specifics

*IT has more faith in the specific value IoT can deliver to the business than LOB*

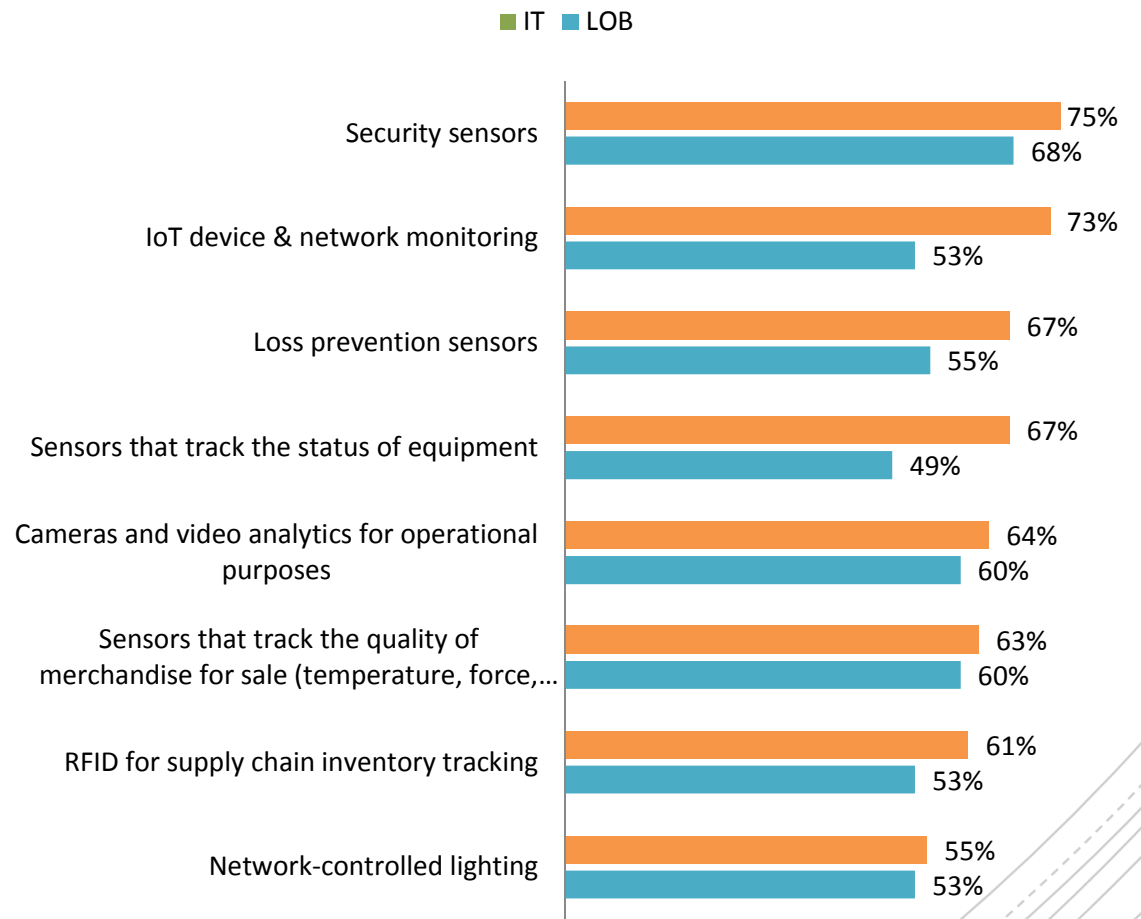
Rate The Potential Value Of This Group Of IoT Technologies (% Citing 'A Lot Of Value')



# The 'Vision Thing'

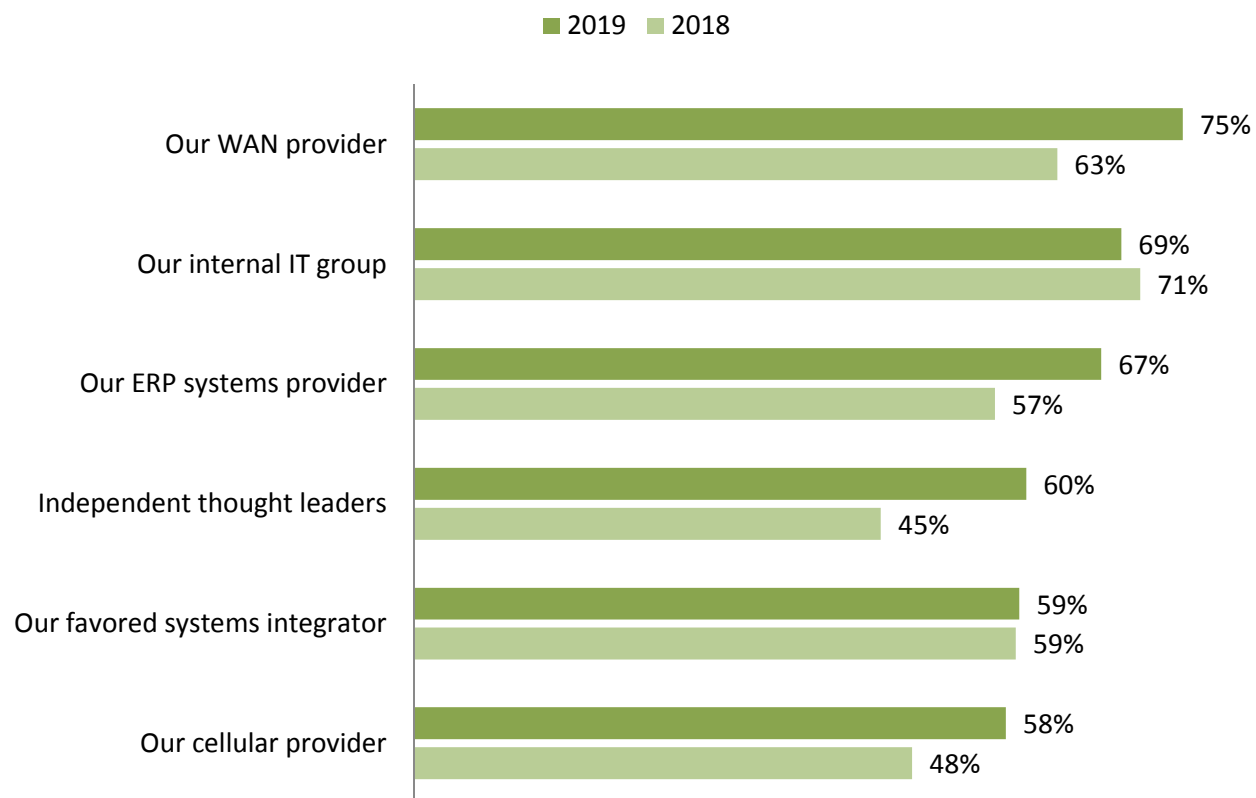
*In all cases, we can see that IT "gets" the specifics of IoT value than Line Of Business Executives*

Potential Value Of Another Group Of IoT Technologies (% Citing 'A Lot Of Value')



## And Yet... An Odd Reliance On Network Providers

Importance Of Various Groups In Helping Develop A Corporate IoT Strategy (% Citing 'Very Important')





## Retail Winners Have More Faith In IT And Key Tech Providers

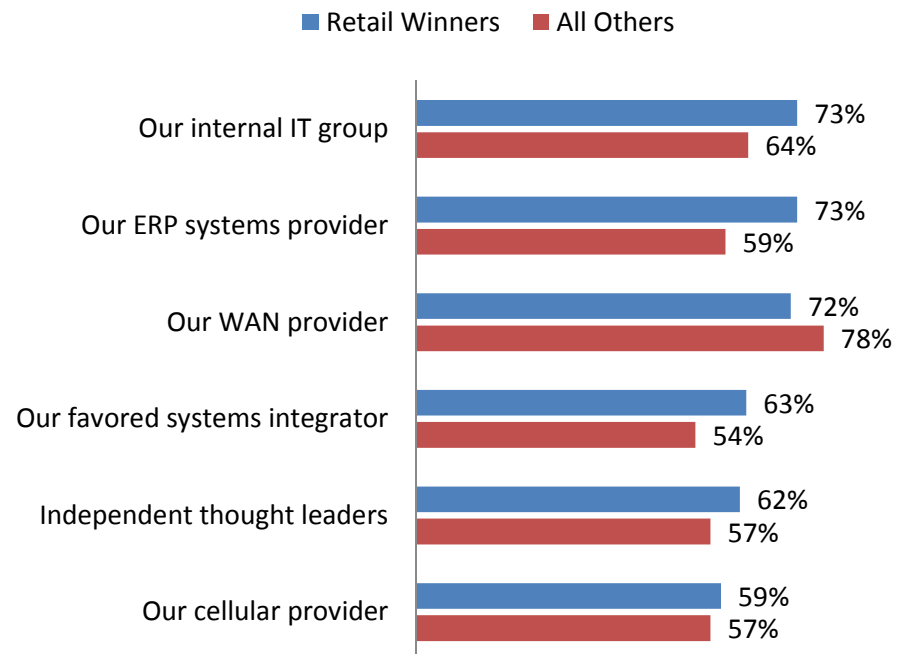
*We find it fascinating that Winners find their internal IT groups and ERP systems providers equally important.*

*The former has an understanding of what to do with the data as it comes in, and the latter is responsible for supporting technology improvements and enhancements.*

*While the WAN providers remain of almost equal importance for Winners, it's clear that others still believe the WAN providers are of primary importance. Again, without context, it's hard to make much sense of this at all.*

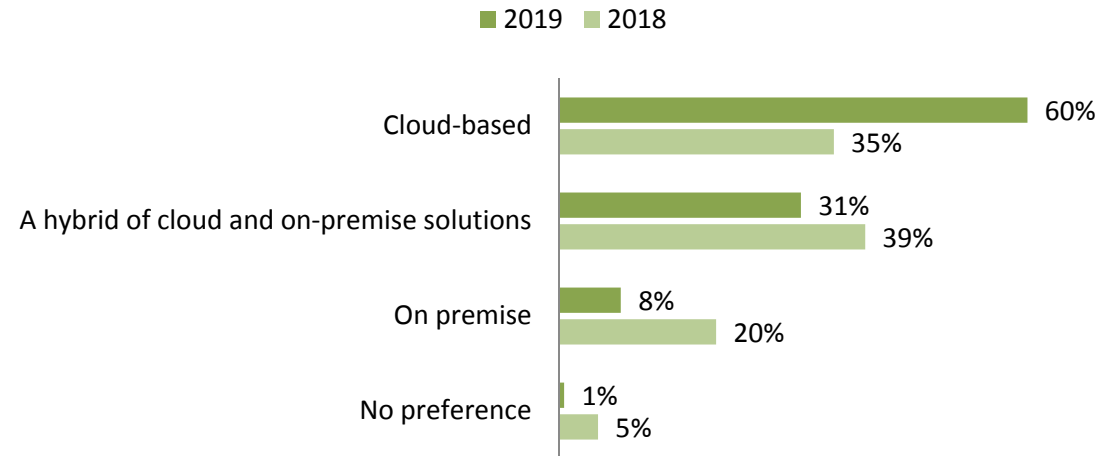


### Importance Of Various Groups In Helping Develop A Corporate IoT Strategy (% Citing 'Very Important')



## And The Cloud Gains Rapid Traction

### What is Your IoT Solution Deployment Preference?



*Retailers clearly have gotten religion when it comes to the Cloud. Fully 91% of respondents believe that the Cloud should at least play a part in any IoT deployment solution, up from 74% last year*

## But What's Actually Happening?

*We asked: "Given financial and business technology priorities, which three or more of these are you most likely to implement, or have already implemented?"*

*Offered 18 different use cases and expected to see customer-facing solutions pop to the top. In fact, answers were muddled and mixed, with no single technology garnering more than 24% of responses. Those four technologies:*

- *Big Data solutions for storing and analyzing IoT data*
- *IoT device and network monitoring*
- *Sensors that track the quality of merchandise for sale*
- *Loss prevention sensors*

*All other solutions were identified as pending or completed projects by less than 20% of respondents. This is not a ringing endorsement.*

*We can only assume that disconnects across the enterprise are creating a certain "brain freeze" within the enterprise. As we saw earlier, respondents report that they have not identified a business case to suppose specific use-cases for IoT, and business leadership doesn't understand the benefits of IoT.*

*We can also only assume that looking to their WAN providers for guidance is not helping them a whole lot in developing a practical and specific plan. Instead, they look at the problem of the day and hope IoT will help them solve it.*

*This is a shame. IoT can drive real and substantial benefits to the retail enterprise, both in managing inventory and in connecting with consumers. But basics must be covered, and ROI-generating quick wins must happen before senior management is going to sign off on significant investments.*

*This drives our recommendations to follow.*



# BOOTstrap Recommendations

Follow The Winners

# Steps To Success

- Don't miss the low-hanging fruit
- Create cross-functional teams within the company
- Establish IoT project objectives in advance
- Use benefits gained from low-hanging fruit as proof points
- Build clear business expectations in advance
- Work with your tech vendors. They likely know best use-cases
- Don't ever lose sight of consumer privacy concerns

*IoT has real benefit opportunities. It's long past time these benefits are quantified and take us from the simplest to the most complex use cases. Then we can have far more realistic conversations about the technologies.*





## Read The Full Report At:

<https://www.rsresearch.com/research/the-internet-of-things-finally-finding-a-home-in-retail>



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