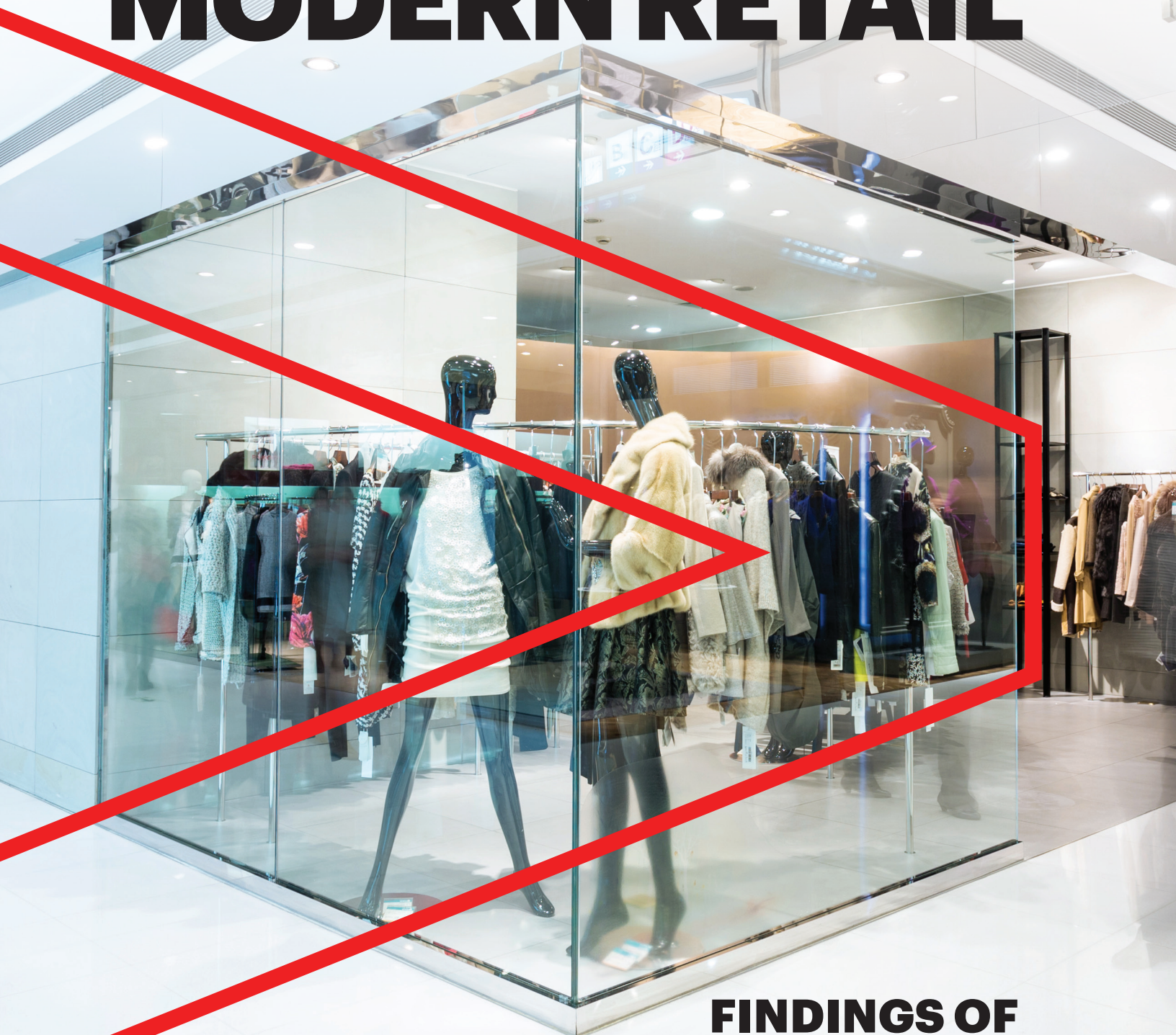


TRANSFORMING MODERN RETAIL



**FINDINGS OF
THE 2018 RFID
IN RETAIL STUDY**

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RFID HAS EXPERIENCED UNPRECEDENTED GROWTH IN USER ADOPTION, CAPABILITY DEVELOPMENT, AND OVERALL BUSINESS IMPACT WITHIN THE RETAIL INDUSTRY.

Of 110 global retail executives surveyed as part of the *Kurt Salmon, Part of Accenture Strategy 2018 RFID in Retail Study*, an impressive 69 percent of retailers around the world¹ have cited a significant level of RFID (Radio-Frequency Identification) adoption². Much of this growth can be attributed to the requirement of omnichannel execution and the pressure to constantly improve the customer experience. RFID has significantly improved inventory accuracy and driven increased profits both in-store and online.

Omnichannel capabilities and improved inventory accuracy have huge impacts on profitability. While RFID cost per unit has been a hurdle for some retailers historically, lowering technology costs and increased recognition of use cases continue to strengthen the RFID business case. On average, all retailers who have piloted or adopted RFID reported an 8.3 percent return on their investment. In addition, during the time between piloting and full adoption alone, retailers report an average ROI increase of more than 30 percent due to efficiencies gained while utilizing the technology. The positive correlation between maturity of RFID adoption and return on investment is another data point captured through the evolution of the technology and the continued refinement of the process.

RFID is now playing an integral role in transforming the way business is done in the modern retail environment.

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RFID IS MAINSTREAM RETAIL

In North America, RFID has the largest footprint and it continues to grow as 92 percent of retailers in the region reported that they are progressing toward full adoption (see Figure 1).

Since 2016, this metric has increased by more than 25 percent – a solid indicator that RFID technology can finally be considered mainstream.

With the rise of new capabilities, such as same-day delivery, consumers have become increasingly sophisticated and more demanding. As a result, retailers are fighting to keep up with ever-increasing expectations through investment in omnichannel capabilities, primarily enabled by RFID. Major retailers should not expect to garner an advantage simply by having enabled RFID but would instead be at a significant disadvantage if they haven't started using the technology to unlock new capabilities.

Figure 1. Percentage of retailers by region that are progressing toward RFID adoption

NORTH AMERICA

(n=50)



2018 ADOPTION ACROSS REGIONS

69% GLOBAL

(n=110)

EUROPE

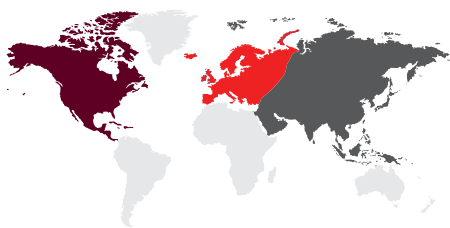
(n=30)

ASIA

(n=30)

NORTH AMERICA

(n=50)



30%

70%

92%

In Asia, with the growing pressure to serve customers who have the desire to shop anywhere at any time, 70 percent of surveyed retailers are turning to RFID to ensure they have both inventory accuracy and visibility.

While the rest of the world has shown great acceptance of RFID, European retailers are lagging. In Europe, only 30 percent of surveyed retailers have begun RFID deployment.

For retailers currently not implementing RFID, 32 percent are concerned about privacy issues and 29 percent are waiting for broader adoption.

Based on the current adoption trends, we believe broader adoption may no longer be a reason to resist the investment. We believe privacy concerns will abate as clear rules on RFID tag use are being implemented, e.g., a logo at the store entrance that informs the shopper about RFID use as well as the obligation to deactivate the tag at the cashier automatically and free of charge. There are a number of companies that use RFID extensively in Europe and we expect that group to grow as omnichannel pressures increase within the region.

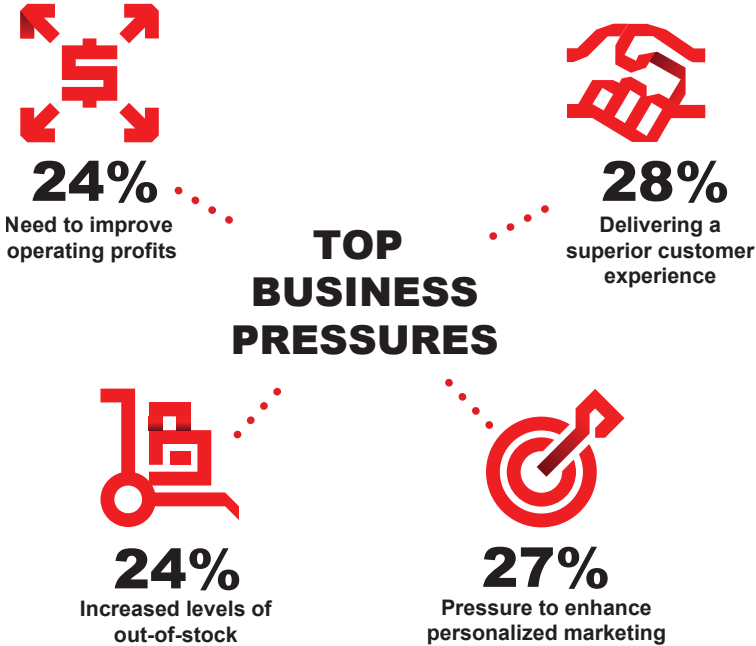
KEY DRIVERS OF **RFID** ADOPTION

The majority of retailers worldwide adopt RFID for the technology’s most well-known use case: **inventory accuracy**.

Within just one year of leveraging RFID, retailers typically recognize increased inventory accuracy and omnichannel fulfillment. Retailers that maintain RFID beyond one year begin to explore more advanced use cases including blockchain enablement and in-store smart technology³.

Retailers are now beginning to explore the new use cases and associated data to enable other emerging technologies in order to address their top business pressures. Respondents to our study are most concerned with the following challenges:

Figure 2: Retailer’s top business pressures



Traditional methods for alleviating these business pressures will no longer suffice. Retailers plan to increase their spending on innovative technology over the coming years to address their top challenges.

In fact, the percent of global technology spending by retailers on software solutions will increase by 27 percent between 2016 to 2020 from 22 percent to 28 percent.

Of all technologies retailers intend to implement to address their top business pressures in the next three years, 46 percent of respondents to our survey cited smart checkout systems. Furthermore, 33 percent plan to utilize Internet of Things (IoT) technology to boost personalized marketing capabilities. RFID adopters will have a leg up on their competition in implementing these technologies as a result of the detailed data provided from RFID and real time trackability of individual product.

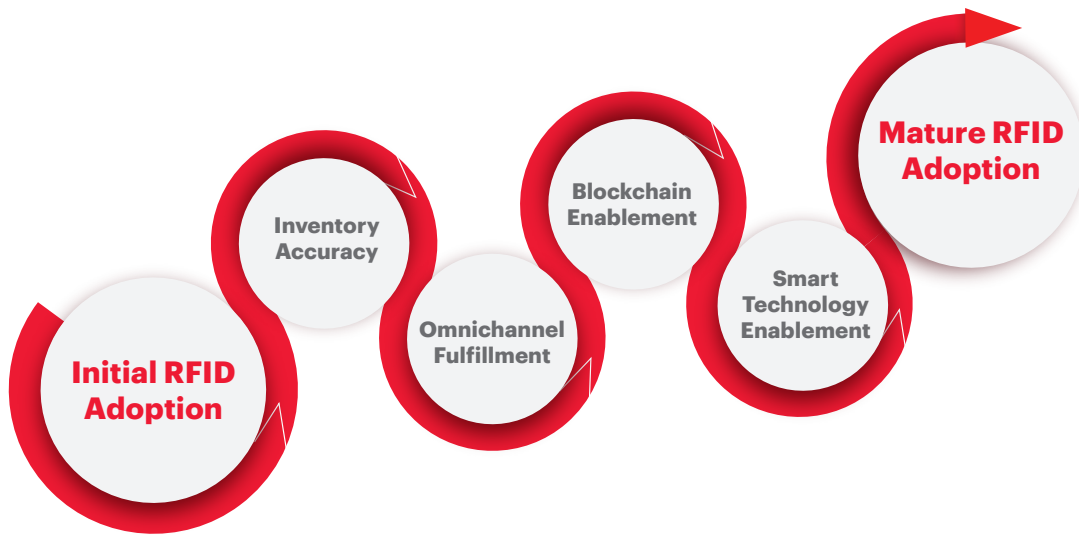


46%

of retailers intend to implement smart checkout systems to address top business pressures. RFID adopters will have a leg up on their competition.

These more advanced use cases have the potential to differentiate retailers from their competitors and provide them with a greater return on their investment (see Figure 3). Once a retailer makes the decision to implement and adopt RFID, they are presented with many opportunities to explore additional use cases and interactions with emerging technologies.

Figure 3: RFID use cases over time



RFID's role in this new wave of technological innovation will only continue to grow.

Over half (51 percent) of retailers in our study currently plan to use the technology to inform a blockchain implementation.

As more retailers begin exploring innovative technologies to revolutionize their businesses, RFID will undoubtedly serve as an enabler of innovation in the future of retail.

FINANCIAL BENEFITS OF RFID

Retailers that have considered whether RFID is right for their business have made their decision based on a focused business case comparing invested capital against benefits of selected use cases.

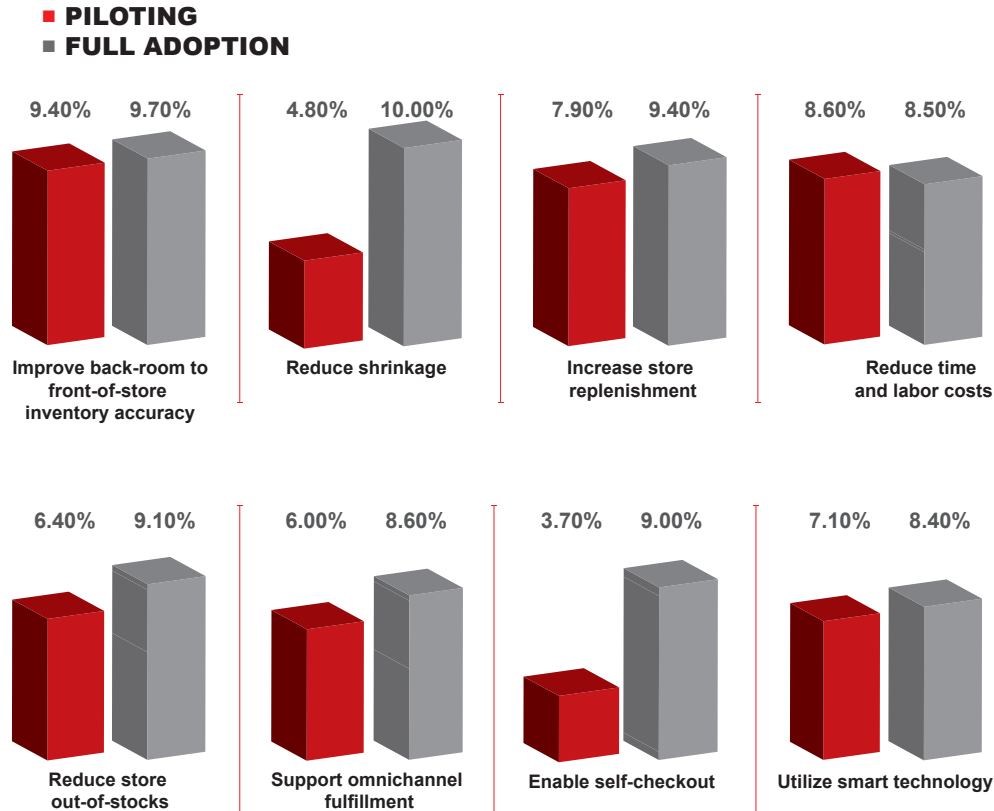
Retailers that were piloting RFID prior to our *2018 RFID in Retail Study* reported ROI of 6.8 percent on average, whereas those that had fully adopted RFID achieved a 9.2 percent ROI, showing a strong correlation between adoption maturity level and reported return on investment. Simply put, there is a strong business case for almost every retailer to implement RFID. This trend is a result of several efficiencies that are gained as a retailer progresses from piloting to having fully adopted the technology.

FINANCIAL BENEFITS OF ADOPTION TEND TO GROW OVER TIME.

The cost of RFID tags and the software required decreases as a retailer scales up adoption from the pilot phase to a full store roll out. Additionally, as retailers approach full adoption of the technology, they have the ability to begin tagging their products at the factory at a lower cost to the business. Enhanced store processes inclusive of RFID also improve return on investment as adoption progresses. Thus, store associates receive better training and understand how to use RFID to make their jobs less inventory focused and more customer focused. Furthermore, retailers can unlock labor savings with their RFID enabled omnichannel capabilities as products are found faster and with higher accuracy. As retailers fully adopt the technology, they are able to better understand the sheer amount of data that they have access to which can help inform future business decisions. As a result, a strong partnership with data analytics teams can unlock countless future opportunities to help drive business decisions.

The superior returns reported by full adopters are consistent across all the use cases identified in the survey, including inventory accuracy, omnichannel fulfillment and reducing store labor (see Figure 4). ROI greater than 5 percent was reported by nearly all (98 percent) RFID adopters in at least one of the identified use cases. These results suggest specific, tangible benefits from RFID adoption, and the growth in retailer adoption worldwide indicates that the technology is perceived as an increasingly worthwhile investment.

Figure 4: Reported ROI by use case by maturity level
(All 76 RFID adopters – 69% of global retailers surveyed)



While the overall investment in RFID pays dividends, there are stark differences between the financial gains a retailer can achieve through various use cases. Traditional use cases, for example, exhibit the greatest likelihood of increasing ROI. Retailers reported the highest returns (8.5+ percent) for those such as back-room to front-of-store inventory accuracy, store replenishment and out-of-stocks. These are the focus areas where ROI is to be gained in the early stages of adoption. On the other end of the spectrum, newer and less-proven use cases like self-checkout and in-store smart technology have a reportedly lower ROI during the pilot phase. As retailers continue to learn about these capabilities and the technologies become more widespread, the financial benefits are expected to improve as capabilities continue to mature.

RFID ENABLES OMNICHANNEL FULFILLMENT EXECUTION

85% of the retailers surveyed currently offer at least one omnichannel shopping method for their customers. Additionally, 96% of retailers that have already adopted RFID offer at least one omnichannel shopping method for their customers. The increased visibility to the whereabouts of products greatly aid retailers in rolling out omnichannel offerings.

While there are many benefits to offering omnichannel experiences to customers, it does not come without additional challenges. Split shipments, one of the principal issues that retailers face today, occur when retailers offer to ship products directly to a customer, but multiple sources must be used for order fulfillment.

Survey respondents that offer this capability claimed that **31 percent of their Ship from Store orders triggered a split shipment.**

Sales margins traditionally suffer as a result of split shipments due to duplicative shipping cost. However, RFID provides a degree of inventory accuracy that enables retailers to greatly reduce out-of-stocks that lead to margin-cutting split shipments.

In addition, as retailers begin implementing and piloting RFID, they are able to offer reserve in-store and real time mobile app purchase capabilities. As adoption progresses, improved inventory accuracy and positive return on investment enable more advanced use cases. Full adoption ultimately enables retailers to provide customers with a full portfolio of omnichannel offerings including Buy Online Pick up in Store (BOPUS) and Ship from Store (see Figure 5). Thus, a direct relationship exists between the adoption level of retailers and how they see the technology impacting their business.

Figure 5: Omnichannel offerings by RFID maturity

All 76 RFID adopters – 69% of global retailers surveyed

- **PILOTING**
- **FULL ADOPTION**



BOPUS
68% 85%



SHIP FROM STORE
61% 85%



ONLINE ORDER
66% 80%



SHIP TO STORE
63% 70%



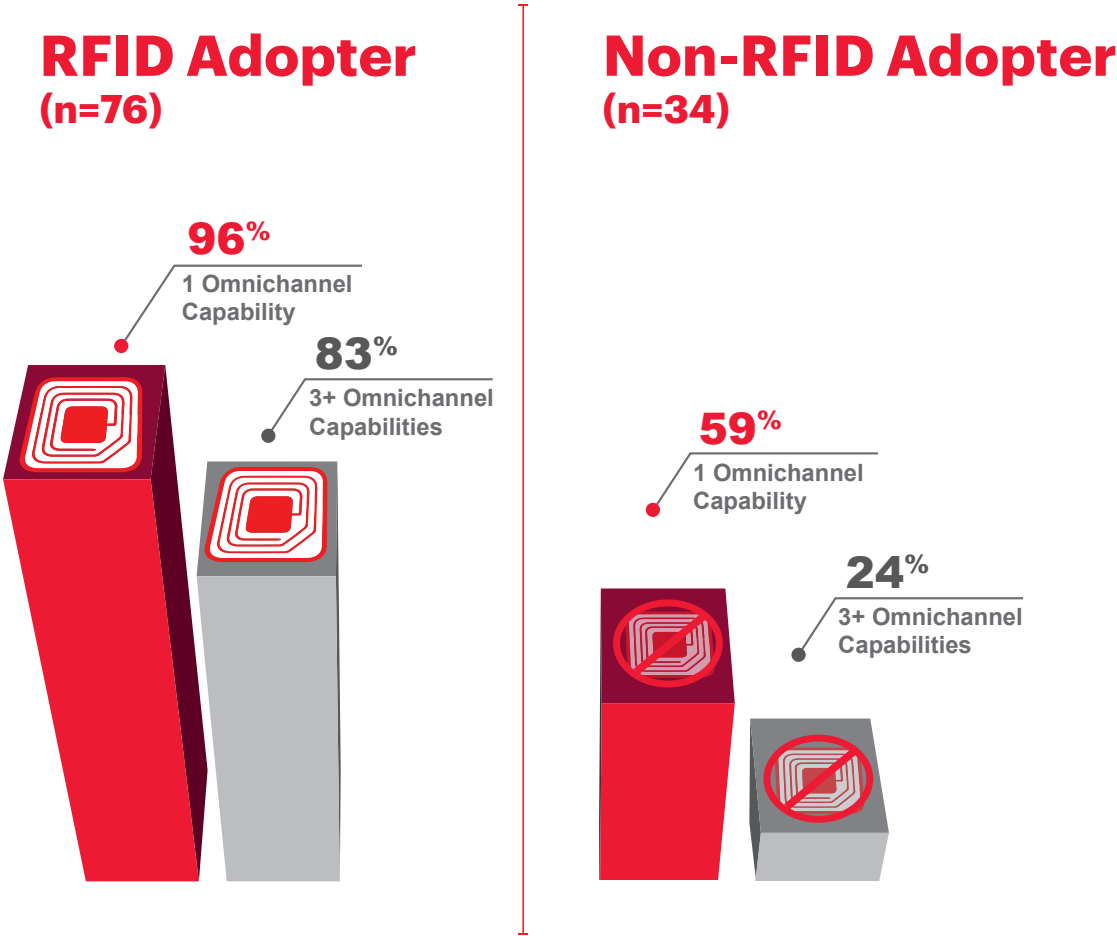
MOBILE APP
61% 70%



RESERVE IN STORE
61% 65%

Those who have already implemented RFID technology are searching beyond basic use cases for opportunities to enhance their business from end-to-end. While several retailers listed omnichannel offerings as one of their top business pressures, there is a significant disparity between RFID adopters and non-adopters. 83% of RFID adopters offer three or more omnichannel fulfillment options compared to only 24% of non-adopters (see Figure 6). As RFID continues to evolve, retailers will refocus their priorities beyond just increased inventory accuracy. Instead, they will begin to consider the more sophisticated benefits of improved supply chain visibility

Figure 6: Omnichannel capabilities by level of RFID adoption



SINCE OUR LAST RFID IN RETAIL STUDY IN 2016, THE TECHNOLOGY HAS DRASTICALLY INCREASED ITS FOOTPRINT IN THE RETAIL INDUSTRY AND WE BELIEVE WILL CONTINUE TO DO SO AROUND THE WORLD AS CONSUMERS PRESSURE RETAILERS TO INCREASINGLY ENABLE SEAMLESS OMNICHANNEL.

A key indicator that companies will continue to leverage RFID is that 80 percent of global retailers surveyed believe its benefits cannot be replicated. The inventory accuracy RFID uniquely offers can unlock many capabilities and use cases that retailers otherwise would not consider exploring. Each year more and more retailers recognize the value of the technology and invest in implementing it. Also, with a positive return on investment across a variety of use cases, retailers will continue to grow and reinvest their savings as their experience with RFID evolves.

RFID is here to stay and will continue to play a critical role in enabling retailers to take the next step in their transformation to compete in today's demanding marketplace. RFID has evolved from a competitive advantage to a competitive necessity due to its ROI and ability to enable a seamless omnichannel experience.

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NOTES

1. In the Kurt Salmon, Part of Accenture Strategy 2018 RFID in Retail Study, retailers were surveyed from Asia (n=30), Europe (n=30) and North America (n=50). All data in this report is sourced from the 2018 RFID in Retail Study survey unless otherwise noted.
2. In the survey retailers were asked to provide their level of RFID adoption with the following options: 1) None 2) None, but intend to pilot within 1 year 3) Currently piloting RFID 4) Piloted RFID, but decided against broader implementation 5) Piloted RFID and currently in the process of broader implementation 6) Full Adoption. For the purposes of the study RFID adoption is classified as retailers that are currently piloting RFID, piloted RFID and currently in the process of broader implementation, and have completed full adoption.
3. Smart technology in the retail sector includes technologies that have network capabilities and the ability to interact with consumers. Examples of smart technology include interactive mirrors and fitting rooms, shelves with sensors and augmented reality applications.

ABOUT THE RESEARCH

In February 2018, Kurt Salmon, part of Accenture Strategy partnered with McGuire Research to interview 110 retail industry executives throughout North America, Asia and Europe. Interviews were conducted online, by phone and in person during February 2018. Survey invitations were extended to select companies from six industry segments with annual company revenues over \$500 million. Thirty-five percent of responses came from retailers with annual revenues totaling \$500M-1B, while thirty percent of responses came from those with revenues totaling \$1B-5B and the final thirty-five percent of responses came from retailers with revenues greater than \$5B. Forty-nine percent of responses came from companies that primarily classify themselves as department stores or general merchandise, and the remainder were apparel, specialty, fashion or accessories retailers. The results of this survey were analyzed and are reported in aggregate in this study.

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