HOW TO WIN IN RETAIL
THROUGH INVESTING IN CUSTOMER
FOCUSED TECHNOLOGY & INNOVATION

Kx RETAIL INNOVATION INDEX
UK ANALYSIS 2018
“You’ve got to start with the customer experience and work back toward the technology – not the other way around”

Steve Jobs, Apple
Kx has been a global software leader for complex analytics on massive-scale data for over two decades. The Kx technology is an established and trusted standard across industries such as Capital Markets, Pharma, IoT & Utilities, Space and Manufacturing.

Kx for Retail brings the power of this cutting edge technology, combined with true retail industry and analytical expertise to help businesses unlock the full value of their data through innovative yet simple and executable solutions.
# REPORT CONTENTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. Foreword</td>
<td>05</td>
</tr>
<tr>
<td>02. Why Innovate?</td>
<td>06</td>
</tr>
<tr>
<td>03. Introducing Kx Retail Innovation Index</td>
<td>07</td>
</tr>
<tr>
<td>04. Kx RII Analysis Methodology</td>
<td>08</td>
</tr>
<tr>
<td>05. Key Findings</td>
<td>09</td>
</tr>
<tr>
<td>06. Drivers of Retail Innovation</td>
<td>10</td>
</tr>
<tr>
<td>07. Kx RII Top 10 Retailers</td>
<td>11</td>
</tr>
<tr>
<td>08. Kx RII Retailers 11-50</td>
<td>12</td>
</tr>
<tr>
<td>09. Kx RII By Category</td>
<td>13-14</td>
</tr>
<tr>
<td>10. RII Drivers in the Customer Journey</td>
<td>16</td>
</tr>
<tr>
<td>11. Real-time Technology Enabling Enhanced CX</td>
<td>17</td>
</tr>
<tr>
<td>12. Brand Focus</td>
<td>18-20</td>
</tr>
<tr>
<td>Brand Focus: Argos</td>
<td>18</td>
</tr>
<tr>
<td>Brand Focus: Ikea</td>
<td>19</td>
</tr>
<tr>
<td>Brand Focus: Amazon</td>
<td>20</td>
</tr>
<tr>
<td>13. Category Focus</td>
<td>21-22</td>
</tr>
<tr>
<td>Category Focus: Grocery</td>
<td>21</td>
</tr>
<tr>
<td>Category Focus: Apparel</td>
<td>22</td>
</tr>
<tr>
<td>14. Modern Day Consumer Needs</td>
<td>24</td>
</tr>
<tr>
<td>15. Kx for Retail Solutions</td>
<td>25</td>
</tr>
<tr>
<td>16. Further Resources</td>
<td>26</td>
</tr>
</tbody>
</table>
LEADING IN RETAIL IN THE DIGITAL AGE

In case you missed it, we are in a digital revolution and no industry is exempt. Banks, newspapers, travel and retail have to adapt to technology-focused business models with the key driver being changing consumer behaviour. Change or die - big names that are slow to adapt are being lost; Kodak, Borders, and firms such as Nokia and Blackberry losing their retail presence.

The retail landscape has been shifting online for some time now and this is nothing new, but the pressure on traditional bricks and mortar retailers that have not adapted is beginning to show. Debenhams have finally accepted that sharp discounting and reliance on short term sales and promotions is not a sustainable model, whereas John Lewis, who continue to innovate with data and technology, are seeing contrasting fortunes.

Amazon continue to dominate the retail market today for one simple reason; the intelligent use of data through technology. Their mission statement clearly demonstrates their commitment to this and the sole purpose of leveraging this data and technology to deliver a customer centric range online:

"Our vision is to be earth's most customer-centric company; to build a place where people can come to find and discover anything they might want to buy online"

No category is safe. Amazon’s move in to food retailing with the acquisition of Whole Foods will concern the big players such as Walmart and Tesco. Retailers are making their own moves, with Walmart’s purchase of Jet.com, and Morrison’s tie up with Amazon. The food revolution is coming, and those that do not leverage technology and data to compete with Amazon’s consumer-focused and targeted approach will fail.

Data and technology is clearly critical to retailers, but until now it’s been difficult to know where to focus investment to achieve the biggest gains. Kx have carried out extensive research with a nationally representative sample of UK shoppers to identify what innovations are driving customer satisfaction and loyalty.

Our Retail Innovation Index (Kx RII) helps retailers understand how consumers view their brand, and helps identify key areas where consumers expect technology, data and innovation should be used to drive their customer experience. In our inaugural report, we identify where retailers need to be innovating to deliver success.

LinkedIn
Damon Bryan – SVP Retail Analytics
Thomas Hill – SVP Retail Services
Peter Denby – SVP Retail Strategy
02. WHY INNOVATE?

Transformation is sweeping the retail industry. Consumers today are much better informed and more connected. They want mobile shopping, personalized service and instant gratification. These changes are giving rise to a host of innovations around omni-channel retailing, mobile apps, customer data mining, responsive supply chains and cutting-edge, in-store, self-help technologies. Innovation is critical in the digital retail revolution and our consumer research shows that innovation is directly linked to shopper satisfaction, loyalty and ultimately revenue growth.

Advocacy was 60% higher in the top 20% scoring retailers in the Kx RII compared to the bottom 20%. Those customers claimed they were 17% more likely to shop again with that retailer, showing that innovation drives loyalty with customers.

“What is now proved, was once only imagined.”

William Blake
Kx RII is consumer research designed to understand the key areas of innovation and technology across the customer journey and the impact on customer experience.

Using a nationally representative panel of over 5,000 UK consumers.


A hybrid metric comprising 3 key elements:

- Innovation
- Advocacy
- Loyalty

Based on what consumers are telling us is important to their shopping experience.

Innovation focussed but commercially actionable.
The research itself is a detailed survey asking over 70 questions about consumer views, attitudes and needs around technology and innovation to drive better customer experiences. The research spanned 8 specific sectors across 50 of the top retailer brands in the UK. The consumers surveyed were a nationally representative sample of shoppers.

So what have we done with all this data? Well firstly we’ve ranked the 50 retailers based on RII score created from the study. We’ve also used the data to perform some detailed analysis across brands and sectors, highlighting to retailers where they need to focus to enhance customer experience and ultimately grow brand perception, consideration and loyalty.

Drivers Analysis
Granular drivers of RII including prioritisation and performance analysis right down to brand and sector level

Consumer Segments
Using demographics and clusters based on attitudes towards technology in retail, we are able to slice and dice all the data in many different ways.
Enhancing the customer experience through innovation is key. Customers are 17% more loyal to brands that score highly on the Kx Innovation Index, and are growing at twice the rate of those that have low innovation scores.

Delivering an easy and frictionless shopping experience is the number 1 driver of the Retail Innovation Index. Brands that are the easiest to shop with are driving higher advocacy and loyalty within their customer base.

A personalised experience is key to retaining shoppers, especially in high frequency purchases sectors such as Grocery. Shoppers expect retailers to know who they are, and use that information to communicate with them to enhance their shopping experience. Push marketing is no longer acceptable to consumers and retailers need to personalise the customer journey across all channels.

Whilst ease is king for all retail sectors, different sectors need to innovate in different ways. Multi-category retailers need to deliver on experience and interaction, whereas easy to find product & value is key for electronics.

Amazon and Apple lead the way for innovation. Argos perform strongly in the RII by delivering the best multi-channel experience and Ocado, ASOS and John Lewis are recognised by shoppers as delivering customer experience through innovation.
Using statistical techniques to uncover the key relationships between the 27 questions regarding innovation in retail and how brands are performing against each, we have been able to create 5 key drivers of innovation perception in retail. We have then quantified the impact of each of these drivers on the RII, identifying the areas to focus importance. Within each key driver we have then ranked each question (lever) based on importance within that driver.

Technology that enables frictionless and personalised experiences is key to success in the current consumer landscape.

**TOP 3 INNOVATION LEVERS BY DRIVER**

**EASE**
- 1. Range and choice to suit individual needs
- 2. Good availability of products I want to buy
- 3. Finding products easily and efficient experience

**PERSONALISED**
- 1. Relevant and personalised communications
- 2. Communicate with me through different channels
- 3. Right time / place for personalised information

**PRICE & VALUE**
- 1. Offer the best prices on the products I want
- 2. Find good value when shopping with them
- 3. Give me deals and offers that are easy to find

**INTERACTION**
- 1. Easy to find and give reviews about their products
- 2. Offer different and flexible ways to contact them
- 3. Use tech to help me interact with customer services

**CHECKOUT**
- 1. Solutions across channels to make it easy to check-out
- 2. Multiple check-out options to suit needs across channels
- 3. Delivery, collection or check-out in store is fast & efficient
Online giants Amazon have topped our inaugural Retail Innovation Index rankings based on powerful performance across most of the key drivers. ‘Ease’, ‘Checkout’ and ‘Interaction’ were the big drivers that Amazon performed particularly well on when it comes to use of innovation and tech to drive customer experience.

No surprises to see Apple high in the RII, a company consistently innovating. Apple are the strongest overall performers when it comes to ‘Personalisation’ and ‘Interaction’ but aren’t seen as particularly providing value transparency for customers.

Ocado are the highest place Grocery retailer on the RII. Ocado’s dedication to their innovative online business model has paid off when it comes to consumer perception of customer experience, performing well across ‘Ease’, ‘Personalisation’ and ‘Checkout’.

ASOS are the highest place apparel retailer with strong performance particularly across ‘Checkout’ and ‘Interaction’. ASOS see themselves as both a technology and fashion business, with a strong ethos for consistent investment in innovation.

Always a company that performs well for CX, John Lewis are also serious when it comes to putting the customer at the heart of any technology investment. Consumers recognise John Lewis for enhancing experience through easy and frictionless customer journeys.

Sitting equal 5th with John Lewis on the RII, Argos are here for different reasons. Whilst they don’t have the same fiercely loyal customer base, Argos are seen to be leaders when it comes to providing easy and fast / flexible checking out experiences across all channels.

Ikea have constantly innovated as a business, in product design and across marketing and the customer experience. Ikea have set themselves up as a business to consistently drive ‘Value’ for consumers through innovation and are being recognised for that.

Since luxury retailers Yoox and Net-A-Porter merged in 2015, the group has invested heavily in innovative customer focused technology. In particular the group have performed extremely well in ‘Personalisation’ coming second only to Apple in performance within this driver.

M&S have the lowest pure innovation perception of our top 10 but are amongst the highest when it comes to advocacy and loyalty. M&S are getting the blend right between innovation and traditional elements of customer experience, in particular when it comes to ‘Ease’.

Selfridges are the final retailer to make up our top 10. One the UK’s most famous traditional retailing names has also invested heavily in multi-channel and are perceived by consumers to be innovating in CX, particularly when it comes to ‘Personalisation’ as a result of it.
09. RII BY CATEGORY

**GROCERY**

- **7.2** avg. RII
- ▼ **1%** vs. industry

**Top 3 Brands**

1. **ocado**
2. **Iceland**
3. **Waitrose**

**APPAREL**

- **7.3** avg. RII
- ▲ **1%** vs. industry

**Top 3 Brands**

1. **ASOS**
2. **YOOX NET-A-PORTER**
3. **SELFRIDGES&CO**

**MULTI-CATEGORY**

- **7.4** avg. RII
- ▲ **2%** vs. industry

**Top 3 Brands**

1. **Amazon**
2. **John Lewis**
3. **Argos**

**ELECTRONICS & APPLIANCES**

- **7.7** avg. RII
- ▲ **6%** vs. industry

**Top 3 Brands**

1. **Apple**
2. **go.com**
3. **Currys PCWorld**
09. RII BY CATEGORY

**TOYS & SPORTS**

- Avg. RII: 7.1
- ▼3% vs. industry

**Top 3 Brands**

1. Smyths
2. Toys"R"Us
3. JD

**HOME, DIY & PET**

- Avg. RII: 7.1
- ▼3% vs. industry

**Top 3 Brands**

1. IKEA
2. Dunelm
3. B&Q

**HEALTH & BEAUTY**

- Avg. RII: 7.1
- ▼3% vs. industry

**Top 3 Brands**

1. Superdrug
2. Boots
3. Lloyds Pharmacy

**TELECOMS**

- Avg. RII: 7.3
- ▲1% vs. industry

**Top 3 Brands**

1. Carphone Warehouse
2. EE
3. O₂
I’d like the ability to buy whatever, whenever I want from my home without leaving my house and have it delivered within 24 hours.

The most interesting and exciting technology that has enhanced my shopping experience is the handheld scanning devices.

I want to be able to use my mobile phone to help locate items or to find out if there is more stock available in store.

Quotes taken from RII survey verbatim
‘Customer Journey’ isn’t just a buzz-term, it’s an important part of understanding the consumer path through brand awareness, conversion, through to retention, growth and ultimately protecting the customer base you have built. Customer experience design often falls down when organisations focus too operationally rather than fully understanding how to wow customers and then designing customer experiences based on this. Using the data from the study we’ve assigned the important drivers of RII to 5 key phases of the customer journey and ranked the top 3 priorities within each phase.

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<thead>
<tr>
<th>Phase</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
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</thead>
<tbody>
<tr>
<td>ATTRACT</td>
<td>Easy to find product information</td>
<td>Relevant &amp; personalized comms.</td>
<td>Easy to find and give product reviews</td>
</tr>
<tr>
<td>CONVERT</td>
<td>Relevant &amp; personalized comms.</td>
<td>Efficient &amp; trouble-free experience</td>
<td>Always informed about relevant products</td>
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<tr>
<td>RETAIN</td>
<td>Customer experience feels personal</td>
<td>Tech making shopping exciting</td>
<td>Comms. in different channels</td>
</tr>
<tr>
<td>GROW</td>
<td>Responding quickly with customer contact</td>
<td>Flexible ways to contact customer service</td>
<td>Find products easily when shopping</td>
</tr>
<tr>
<td>PROTECT</td>
<td></td>
<td></td>
<td>Find value for money easily when shopping</td>
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</table>

1. Easy to find product information
2. Relevant & personalized comms.
3. Efficient & trouble-free experience
4. Customer experience feels personal
5. Responding quickly with customer contact

1. Range & choice to suit needs
2. Comms. delivered right time & place
3. Tech making shopping exciting
Designing a shopping experience requires an in-depth understanding of who your customer is and what their needs are. Building a platform that allows you to track journeys, interact with customers and optimise experience on the fly requires real-time connected technology capable of scaling to infinite sizes of data.

True real-time data processing capability will enable much quicker, customer centric, next best action decision making within your business – whether it’s a store manager understanding real-time footfall to make quick decisions to ease flow, or whether it’s through machine learning algorithms for real-time targeting strategies.

Using your data along with this capability allows for effective and instantly optimised customer journeys. Optimisation will only be successful if there is a data and insight platform that can connect data sources, both internal and external, and provide single customer views across purchasing and brand engagement.
1. Launched Argos Scan, an augmented reality app to bring products to life for customers
2. Opened a digital hub to become more agile in how it delivers new customer experiences
3. Implemented time sensitive marketing reactive to events, competition and evolving customer needs
4. Created digital stores inside existing branches of Sainsbury's in a drive to reach more customers

Argos achieved a somewhat surprising result being ranked as the highest performer in the RII for predominantly multi-channel retailers, sharing 5th place and a score of 7.76 with John Lewis. Argos outperformed the RII across all drivers, with consumers 41% more likely to score them 9 or 10 for Ease, 46% for checkout, 41% for interaction and 20% for value, traditionally their strongest suit. Within their multi-category competitive set, Argos was observed to perform strongly on questions relating to Ease. For example, 40% of consumers scored them 9 or 10 for ease of finding information, compared to a category average of 27% and 37% for ease of finding products, compared to an average of 28%. Argos also excelled when it comes to Checkout. 34% of consumers rated them 9 or 10 for providing an easy checkout, compared to a category average of 22% and 40% scored them 9 or 10 for fast delivery/checkout, compared to the average of 29%. This final statistic is vital, given the importance of a fast and efficient buying and delivery process in consumers’ decisions about where to spend their money.

Argos are providing a truly efficient and flexible omni-channel customer experience

“The company has always been an innovator – it was the first retailer in the UK to offer a form of ‘click and collect’ back when customers browsed in-store from catalogues – and has once again embraced innovation, this time to appeal to a new group of shoppers known as ‘now consumers’”

instituteofcustomerservice.com
### 12. BRAND FOCUS: IKEA

<table>
<thead>
<tr>
<th>HOME</th>
<th>RII RANK</th>
<th>RII SCORE</th>
<th>VS. RETAIL</th>
<th>VS. CATEGORY</th>
<th>KEY DRIVER</th>
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<tr>
<td></td>
<td>7th</td>
<td>7.65</td>
<td>+5%</td>
<td>+8%</td>
<td>Value</td>
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**How are they innovating?**

1. Value-chain optimisation through investment in high-tech automated production, value passed down
2. Enhancing store experience through interaction and technology such as AR and interactive catalogues
3. TaskRabbit acquisition - a service that helps customers building flat pack furniture at home
4. Opening the Space 10 Innovation Centre, a creative space promoting out of the box thinking from staff

Ikea emerged as the clear winner within the Home & DIY sector. The strongest driver contributing to Ikea's performance is 'Value', with the Swedish retailer 31% more likely to be scored 9 or 10 by consumers for this driver than the average across all retailers in the RII. This contrasts with the poorest performer in the category, Homebase, who were 52% less likely to be scored 9 or 10 by consumers for this driver than the average across all retailers in the index. Other major contributors to Ikea topping their category are their performance in Ease and Interaction. Despite their scores being very close to the average across all retailers in the RII for these drivers, other companies in the category performed significantly worse than average in comparison. Interaction in particular delivered a major difference in survey response. Whereas 18% of consumers rated Ikea 9 or 10 for this driver, 1% higher than the RII average, only 8% to 12% rated other companies in their category 9 or 10, a startling 32% to 54% lower than the RII average.

Ikea are clearly providing an experience a level above what consumers expect in this category

> "Ikea are working hard to achieve quality at affordable prices for our customers through optimising our entire value chain, by building long-term supplier relationships, investing in highly automated production and producing large volumes."  
>  
> ikea.com
12. BRAND FOCUS: AMAZON

HOW ARE THEY INNOVATING?

1. A culture of permanent innovation, driven by the desire to deliver the best possible customer experience
2. Pioneering the use of AI in customer experience and ease through Alexa with voice purchasing capability
3. Innovative fulfilment centres utilising high tech robots to optimise logistics efficiency
4. Ground-breaking innovations across things like drone delivery and checkout-less stores (Amazon Go)

It’s no surprise to see Amazon topping the RII, returning a score of 8.48 against an RII average of 7.26 and the Multi-Category retailer average of 7.29. Amazon excelled across all they key drivers observed in the RII. Their mission to make the shopping experience as hassle free as possible for customers is reflected by 46% of consumers rating them 9 or 10 for Ease, compared to a RII and Category average of 28%. On the same theme, 44% of consumers scored them 9 or 10 for having a smooth Checkout process, 19% higher than the average of 25%. Reflecting the fact that value doesn’t always directly translate to price, 38% of consumers rated Amazon 9 or 10 for Value, compared to an average of 22%, despite the fact they often don’t offer the lowest price in the market for products. Amazon have made great efforts to personalise the shopping experience for customers, with tailored recommendations a notable innovation. This is echoed with 25% of consumers rating them 9 or 10 for Personalisation against an average of 16% and 36% scoring them 9 or 10 for Interaction, double the average of 18%.

Amazon are truly delivering on their vision “to be earth’s most customer-centric company”

“Our customers are loyal to us right up until the second somebody offers them a better service. It’s super-motivating for us. We’re a company of builders. Of pioneers. It’s our job to make bold bets, and we get our energy from inventing on behalf of customers.”

Jeff Bezos, Amazon
Performance across the grocery category broadly mirrored the RII as a whole, with an average position of 27 and score of 7.63 across the 9 companies included. These results were driven by the extremely strong performance of Ocado, who achieved a lofty position of 3rd on the full RII, with a score of 8.09, countered by the performance of Coop, with a score of 6.45 and a position of 50th.

Ocado have data, technology and innovation baked into their company culture and incubated by Ocado Technology, who have the vision of disrupting the retail industry through innovation in their software and systems that power the online platforms of both Ocado.com and Morrisons. Ocado’s culture of innovation is encouraged from top down. CTO, Paul Clarke explains; “Innovation for me is best summed up as being like playing a game of extreme, non-linear snakes and ladders. Some of the most exciting innovations can follow on from the biggest failures”. Tesco’s accomplished top spot in the mini league of the ‘Big 4′ grocery retailers. Tesco’s success was in no small part down to their delivery of effective Personalisation (30% more likely to be scored 9 or 10 than the RII average) and a smooth Checkout (20% more likely). Tesco’s Clubcard loyalty scheme has over 17m users which enables them to continue to lead in the use of behavioural data to drive hyper personalized marketing.

HOW ARE THEY INNOVATING?

1. Ocado uses robots and smart software to automate order picking, reducing delivery times for customers and lowering operational costs
2. Tesco Labs promotes and incubates technology innovations to improve the customer experience
3. Morrisons uses machine learning to automate ordering, reducing out of stock items, increasing customer satisfaction and cutting down on waste

PERFORMANCE COMPARISON: Ocado vs. Tesco vs. Coop

We have looked at 3 key grocery retailers, each with different business models. Ocado, the digital grocery retailer outperform Tesco and Coop across all drivers apart from Value, where Tesco, the biggest grocery retailer in the UK perform better. Coop are performing the worst across all key drivers culminating in the lowest RII score across all retailers within all categories
Performance across the Apparel category reflects the seismic shift in shopping behaviour, with on-line only retailers ASOS, Yoox Net-A-Porter Group (YNAP) and Shop Direct occupying 3 of the top 4 places. At the opposite end of the ranking we find predominantly bricks and mortar retail behemoths, Primark and Topman/Topshop, sitting 44th and 46th respectively.

ASOS was viewed as particularly strong for Ease and Checkout, with 33% of consumers scoring them 9 or 10 for the former and 35% for the latter, against an RII and category average of 16% and 25%. YNAP won out in Personalisation; with 29% of consumers rating them 9 or 10, nearly double the 16% RII and category average. Shop Direct, who have successfully transitioned their mail order brands, Very and Littlewoods, to online powerhouses, were rated strongest for Checkout, with a huge 42% of consumers rating them 9 or 10, compared to the average of 25%. They also excelled at Interaction, with 30% scoring them 9 or 10 compared to and 18% average. Surprisingly, Topman/Topshop performed particularly poorly on Value; given it has been the definition of fast, affordable fashion for many years. Only 13% of consumers rated them 9 or 10 for Value, compared to an average across the RII and Apparel category of 22%. This may reflect the fact that a number of lower cost, on-line competitors have grown their market share.

**HOW ARE THEY INNOVATING?**
1. **Shop Direct** opened a tech hub to focus on advanced analytics, machine learning and artificial intelligence for building customer focussed solutions to enhance the shopping experience
2. **ASOS** have launched a same day delivery service in London with other cities to follow
3. **YNAP** uses a combination of surveys and behavioural data to offer each customer an individualised experience as well as opening a 500 people strong tech hub to accelerate innovation

**PERFORMANCE COMPARISON: ASOS vs. Shop Direct vs. Arcadia**

ASOS lead the way in terms of RII however when you get in to the detail of the individual drivers, the Shop Direct brands perform better than ASOS across all apart from Value. ASOS have obviously done well to create a perception of innovation but don’t necessarily perform as well across some of the specific innovation levers as Shop Direct. The Arcadia brands perform poorly across all drivers and have the lowest RII score across all apparel retailers.
I’d like to see clothing on a virtual version of myself to see how the item would look on my body with my measurements.

I want to use apps that work well with the store showing you the latest offers, coupons and discount codes.

I really like technology for things like contactless payment or stored payment details to make my whole shopping experience quicker and easier.

Quotes taken from RII survey verbatim
29% of consumers across all sectors now say they shop online or across mobile more commonly than in-store, peaking at 40% in computing & appliances where shopping online is now the most commonly shopped channel.

18% of consumers use a mixture of store and digital channels across all sectors, however Toys & Sports (25%) and Multi-Category (24%) sectors are much more likely to have customers that prefer to shop across different channels when it suits them.

76% of consumers think it’s important that technology helps them find value when shopping. This is even more important in computing & appliances and telecoms with (81%). Price and Value is obviously still a huge factor in brand choice for the modern consumer.

71% of consumers think it’s important that technology helps to create an easy and hassle free shopping experience.

69% of consumers think it’s important that technology helps them get a great level of customer service across all channels they shop, however....

64% of consumers think it’s not important that technology is used to remove human interaction.

Statistics shown are based on asking RII sample how important it would be for technology and innovation to help them achieve certain things during their customer experience. Data is available split across 8 different retail sectors.
Kx FOR RETAIL
SOLUTIONS SUITE

Kx for Retail solutions are specifically designed to help retailers innovate with data driven technology to enhance customer experiences and journeys.

BIG DATA ENTERPRISE SOLUTIONS

Kx solutions are world renowned for industry leading, ultra-fast, extreme performance Big Data technology, analytical tools and rich visualisations. Kx enables successful delivery of real-time, streaming and historical analysis through its technology:

1. **Big Data Integration**: A single view of your business and customer data – ease of integration with no need for major infrastructure projects, and ability to analyse hundreds of millions of records a second.

2. **Analytics**: Powerful analytics engine for intelligent data-driven recommendations – ability to analyse, develop statistical models and execute machine learning algorithms all in one system.

3. **Velocity**: Real-Time and time-series analytics and execution of algorithmic and machine learning driven decisions in un-paralleled speed on massive amounts of data.

REAL-TIME BI & DASHBOARD PLATFORM

The first step in a retailer’s journey towards real-time Big Data, is being able to review all current and historical performance metrics immediately, and act upon the data. Kx deliver a platform to enable instant querying and decision-making:

The Kx Real-Time BI hub can be deployed on your EPOS or sales platform, providing instant and real-time MI. Once in place, the real-time BI hub can then power real-time decision making using machine learning and algorithms to optimise retail decisions such as dynamic pricing, and supply chain management.

Kx Dashboards deliver rich visualisations in HTML 5, and provide the capability to slice and dice your sales data with any variables such as region, store, customer segment, shopper missions and product categories. The in-memory processing delivered by Kx means queries take seconds to run, and unlock the power of your data.

CONNECTED CUSTOMER PLATFORMS

Customers are the lifeblood of any business, the data a business captures about their customers, how they connect it and turn it into insight is pivotal to help retailers understand what the next best action should be.

Kx provides a cost effective and scalable solution enabling businesses to connect structured and unstructured data easily to deliver real-time insight and analytics through:

1. Connected customer data and analytics platforms with extreme speed and flexibility to build in existing infrastructure.
2. Platforms designed around your mapped customer journeys.
3. Customer data led journey personalisation through next best action / engagement decision engine.
4. Tracking, real-time notifications engine, and rich BI & reporting through Kx interactive Dashboards.

INTELLIGENT ANALYTICS & OPTIMIZATION

Kx offer a number of products to help retailers deliver a more effective, customer focused, operating model. We deliver cutting edge solutions, delivered within our super-fast technology across the following areas:

1. **Merchandising & Range**: Powerful range optimisation tools to deliver customer decision trees and actionable insight using sophisticated basket analytics.
2. **Supply Chain**: Assortment and supply chain optimisation solutions through real-time data insights & forecast optimisation and automation.
3. **Marketing Optimisation**: Harnessing our connected data platform to build real-time, hyper personalised marketing solutions for omni-channel strategies.
4. **Customer Analytics**: Powerful customer journey and next best action analytics unlocking value through connected data.
5. **Pricing & Promotion**: Smart pricing algorithms and impact analysis built on usable technology.
16. FURTHER RESOURCES

The Retail Innovation Index is a free resource that provides thought leadership and consumer insight around technology and innovation and their link to customer experience. Please see below for a number of other resources available to companies looking to understand how Kx can help with the development of customer focused, big data and analytics solutions.

Scan the QR code to visit the Kx for Retail website to learn more about our products and services or visit https://kx.com/retail

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Get in contact with a member of our expert retail team to talk about unlocking more detail from the RII for your brand, or talk about any of our solutions and services

**Damon Bryan**
SVP – Retail Analytics  
+44 (0)113 3944671  
dbryan@kx.com

**Thomas Hill**
SVP – Retail Services  
+44 (0)113 3944671  
thill@kx.com

**Peter Denby**
SVP – Retail Strategy  
+44 (0)113 3944671  
pdenby@kx.com