RetailNext
Comprehensive In-Store Analytics

Transforming Physical Retail:
The Power of E-Commerce-Style Analytics for Brick-and-Mortar Stores

BACKGROUND

"Omnichannel", "In-Store Analytics", "Customer Tracking", "Big Data", "Showrooming": these are some of today's buzz words influencing the rapidly evolving retail landscape. Consumers are more informed, more connected, and are more demanding than ever before, which influences the evolution in physical retail. Retailers are putting customers in the center of the equation and leveraging technology to get them what they want, when they want it, at the price they are willing to pay.

Over the past decade, technology has exponentially changed the choices shoppers have. Fifteen years ago, the choices were pretty simple: "Do I go downtown or to the mall, to a specialty store or to a department store, or do I shop via catalog? These choices were driven primarily by four factors – 1) location, 2) assortment, 3) service, and 4) price. Today, consumers have an almost endless combination of choices to purchase products. Retailers are fighting to know as much about them as possible in order to deliver a personalized shopping experience. This has led to a surge in applications for data about how customers shop, in both the on-line and the physical retail channels.

Through the use of the web and mobile selling channels, shoppers are able to control their personal shopping experiences. They are finding it more convenient than ever to browse, shop, and purchase items in the comfort of their own homes. They also shop on their mobile devices while on the go and through social media networks where the experience is more interactive and engaging. Immediate feedback via 24-hour hotlines, emailed surveys, or on-line chat services provides e-commerce retailers with direct input from their shoppers. Retailers are learning about their shopping experiences in order to understand how to improve and make the visits more relevant. Immediately.

This evolution certainly does not mean that physical retail will cease to exist (brick-and-mortar stores should still account for approximately 85 percent of US retail sales in 2025 according to Consumer Goods Technology). Rather, it does mean that retailers have to find better ways to connect to their customers across all channels. Technology cannot (today) replace the physicality or immediate gratification of the in-store shopping experience (finding that perfect pair of jeans, with just the right fit). However, there is no question that the on line, mobile, and physical retail worlds are converging. As fast as the on-line channels have to move to make that experience fun and engaging, the physical experience has to evolve to make sure that the experience in store is not just a social activity, but is also just as easy as shopping on line. This means everything from having your stores in the right location, to having products shoppers want (in all the right sizes) at the price they are willing to pay, to knowing more about their habits and preferences when they walk in the door than they probably know about themselves.

An additional key differentiator between on-line and physical retail is offering one-to-one customer service. Personalized customer service and social interaction are a large part of why shoppers prefer to shop in store. By knowing what customers want and offering them a more personalized shopping experience, physical retail will still remain relevant in this evolving digital world. With the improvements in retail analytics, retailers can gain insights about their customers allowing them to optimize many customer touch points throughout the shopping journey.

Retail analytics is not a new concept, nor is the idea of tailoring the retail experience based on aggregated data about your customers and how they shop. What have changed are the volume, velocity, and predictability of data and how that is applied to customers' shopping experiences. On-line retailers have nearly perfected the art of making sure shoppers can find what they want on line. The ability to track traffic to a site, understand where customers go on their shopping journey, what resonates with them, and how it influences their buying behaviors, has been long studied, perfected, and documented. And these analytic capabilities spread from the largest on-line retailers like Amazon, to smaller on-line retail stores like Etsy. And until just a few years ago, the only

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66%

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parallel data that physical and on-line retail operations had in aggregated fashion, across all stores, was really traffic and conversion. This is changing. More and more, physical retailers can understand the same metrics that their on-line and mobile counterparts use to drive their businesses.

Through recent advancements with in-store analytics, brick-and-mortar retailers are now able to gain the same insights. Previously, in-store analytics solutions were not readily available because most of the technology had not yet been developed. Today, with advance cutting-edge technology, companies like RetailNext are transforming physical retail. In-store analytics delivered in a precise, real-time format allow brick-and-mortar retailers to close the gap between on-line customer analytics and physical retail by providing metrics like these:

1. How shoppers behave in brick-and-mortar stores
2. Identification of the drivers behind purchases (and non-purchases)
3. How changes in the store can impact customer experience and sales

As never before, a platform solution has emerged with the ability to analyze a comprehensive number of data sources and offer the most comprehensive set of insights in and around physical retail stores. This is changing the way physical retail is operating day-to-day business. And as a result, retailers are investing much more in resources to understand the metrics around how customers shop.

This white paper will explore:

1. The evolution of e-commerce analytics
2. The evolution of in-store analytics
3. The commonalities of e-commerce and in-store analytics
4. The benefits to in-store analytics

① THE EVOLUTION OF E-COMMERCE ANALYTICS

E-commerce businesses have existed for over 20 years and have become another selling channel, which has allowed retailers to expand their market in terms of format, penetration, and diversification. According to the Pew Internet & American Life Project, 66% of the adults purchased on line and 93% of shoppers engaged in on-line research for product and services. As a growing number of consumers become more comfortable with shopping on line, e-commerce businesses are confronted with continuous challenges that make it more difficult to compete for on-line sales.
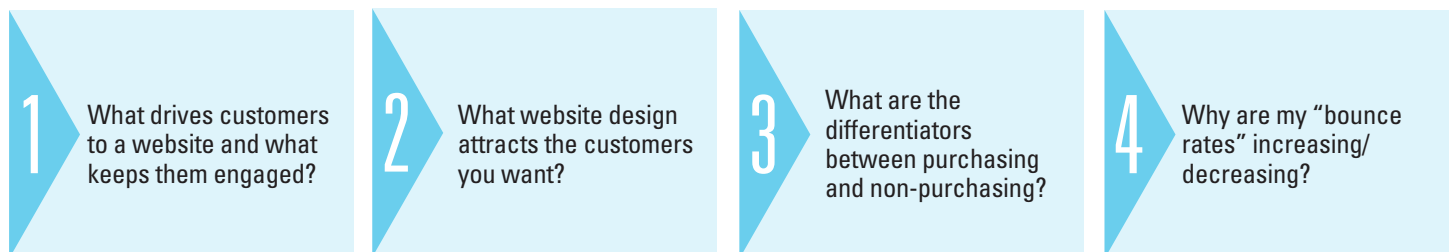
Similar to brick-and-mortar stores, e-commerce success is defined by delivering a consistent shopping experience to the customer which results in repeat visits along with continuous new customer acquisition, which is measured by sales and profit margins. Indicators of performance are traffic (opportunity), shopping behavior (analytics), and purchasing information (conversion). On-line retailers are continuously developing strategies that focus on improving personal shopping experiences, operations, marketing, merchandising, and web/store design in hopes of achieving the "success" that will keep their businesses profitable in a highly competitive industry. For both e-commerce and physical retailers, keeping a competitive advantage is becoming more challenging today than ever before. So, how are retailers keeping a competitive advantage?

The answer is innovation, collaboration, and constant evolution with the customer at the center of all decisions. And it all starts with understanding customers' behavior, their needs, and their wants. This is especially difficult to do if retailers are not utilizing tools and resources that provide the critical insights into understanding customer behaviors and how they interact throughout the shopping experience. Through web analytics providers such as Google Analytics, gaining insights into customer behavior can be achieved. That's why "Over 10 million marketers and websites globally use Google Analytics to measure the effectiveness of their on-line presence in real time" with e-commerce sites at the heart of those 10 million on-line businesses, according to Marketingland.com.

In 2005, the web analytics company emerged and quickly became the dominant web analytics service, focusing heavily on quantitative analysis for website performance. For example, the insights help e-commerce businesses with identifying poor performing pages where improved strategies could be applied. Those retailers who have embraced e-commerce analytics are able to accurately and efficiently measure massive amounts of data, providing deep insights into understanding customer behaviors and identifying key ROI drivers. The data alone, however, are not enough and successful e-commerce companies have applied these data insights to help reshape their business models.

Without web analytics, e-commerce retailers struggle with identifying a webpage layout that encourages customers to successfully navigate a website to conversion; experience pains in understanding the rise in "bounce rates" plaguing on-line retailers and marketers alike; and spend countless hours, resources, and funds on continuous modifications of webpage colors, images, and layouts without concrete data to prove these changes are effective.

Through the use of web analytics, e-commerce retailers are able to measure and analyze customer behaviors that offer insights and answer questions like these:

> " Brick-and-mortar retailers are envious of clickstream data because it provides a source of data that lets you know when a customer decides to abandon a page or make a purchase and what the sequence of events was that led to that decision. Retailers haven't been able to do that in the physical store. "
>
> —LESLIE HAND
> RESEARCH ANALYST
> IDC RETAIL INSIGHTS

1 What drives customers to a website and what keeps them engaged?

2 What website design attracts the customers you want?

3 What are the differentiators between purchasing and non-purchasing?

4 Why are my "bounce rates" increasing/decreasing?

In a world where instant gratification is becoming more important, fickle customers are refusing to spend valuable time having to navigate through a website to find what they want or get the support they need when they need it. Through the use of web analytics, e-commerce retailers are doing more than simply changing a font or color. Through web analytics, on-line retailers are equipped with modular tools that enable them to understand and interpret accurate web performance data, giving them insights into what customers want and what drives them to convert. As a result, on-line retailers are making data-driven decisions to implement improved store strategies that generate more sales, increase customer loyalty, and improve overall website effectiveness.

According to Leslie Hand, research analyst for IDC Retail Insights, "Brick-and-mortar retailers are envious of clickstream data because it provides a source of data that lets you know when a customer decides to abandon a page or make a purchase and what the sequence of events was that led to that decision. Retailers haven't been able to do that in the physical store."

2 THE EVOLUTION OF IN-STORE ANALYTICS

Physical and e-commerce retailers share the same need for store performance insights. The growing demand for analytics has increased dramatically for both on-line and brick-and-mortar retailers. However, for years, the lack of technology around offering comprehensive insights in a single-point platform has led to a number of common unanswered questions from physical retailers. In addition, they experienced knowledge gaps between service delivery and shopper experience based on the limited insights available. Unlike e-commerce retailers, most of whose data are measurable through web analytics, brick-and-mortar retailers have struggled to collect similar data in earlier years.

"Retailers have always wanted to understand how customers shop their stores and what might trigger them to make a purchase, and now, to help retailers do that, there is a convergence of digital and physical worlds taking place," said IDC's Leslie Hand. "However, retailers need to develop a technology stack to support the effort, which is a challenge. In the past, no one could pull all of the structured and unstructured data together to do it."

In 2007, RetailNext, the leading Applied Big Data company for physical retail, was founded just two years after Google Analytics emerged as the most widely used web analytics service. RetailNext is one of the first companies to engineer the most comprehensive in-store analytics platform solution and has dedicated several years of research and development to creating innovative and truly revolutionary technologies that bring in-store analytics to a new level of sophistication. The company is able to answer questions about shopping behavior in an aggregated way, across hundreds and thousands of stores, giving retailers powerful new tools that were never before available to drive sales and profit.

Before RetailNext, brick-and-mortar retailers needed a way to integrate the various data sources and analyze the data to come to actionable insights. Retailers traditionally knew very little about what happened inside their stores beyond purchasing information gleaned through point-of-sale (POS) data and antiquated traffic counters. Other than these basic areas of measurement, physical retailers had limited insight into shopping behavior inside the store environment. While loyalty and customer relationship management (CRM) programs afforded retailers with another layer of information about the top customers, there was zero information on those who never purchased items during their visits.

The biggest problem has been the fact that physical retailers lacked the ability to integrate a variety of data points into a single platform. This, coupled with the lack of technology to collect in-store analytics information, gave physical retail a tremendous disadvantage. And the minimal amount of available data were disparate from each other, making it difficult for retailers to understand how certain store strategies impacted other areas of the store.

Manually collecting data was an extremely difficult task to accomplish. It required additional store budget to hire personnel to manually collect and analyze massive amounts of unorganized store data. The time needed to then develop consumable reports for distribution among management was especially time intensive. Even worse, the store data were continuously changing (e.g. new store transactions, fluctuations in traffic throughout the day, and changes in shopping behaviors) and the need to collect and analyze data in real time was nearly impossible. The process was extremely inefficient and, at times, ineffective. Through manual review and analysis, human error often resulted in erroneous, skewed, and very limited data. The manual review process was not scalable and could not be properly maintained, especially across global and chain-wide stores.

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For the first time, retailers, shopping centers, and even manufacturers are able to collect, analyze, and visualize massive volumes of in-store shopping behavior data through use of RetailNext's powerful and future-proofed products. RetailNext provide retailers the unparalleled ability to collect, analyze, and visualize store data derived from:

- Video Cameras
- Wi-Fi and Bluetooth Devices
- Guest Wi-Fi
- Point-of-Sale Systems
- Workforce Management Systems
- Promotional Calendars
- Payment Cards
- Weather
- And More

RetailNext is able to integrate with many other store data sources to inform retailers how shoppers engage with their stores, giving entire retail organizations the insights needed to grow their businesses.

Through proprietary software, RetailNext creates, gathers, and correlates a broad set of information from the most diverse available data sources inside stores. It presents this information in a variety of useful formats to directly enable retailers to discover and implement opportunities that improve the in-store experience and, ultimately, sales.

Retailers can access measured results through a variety of interfaces. The available and broad variety of options for viewing and digesting data comes in the forms listed below:
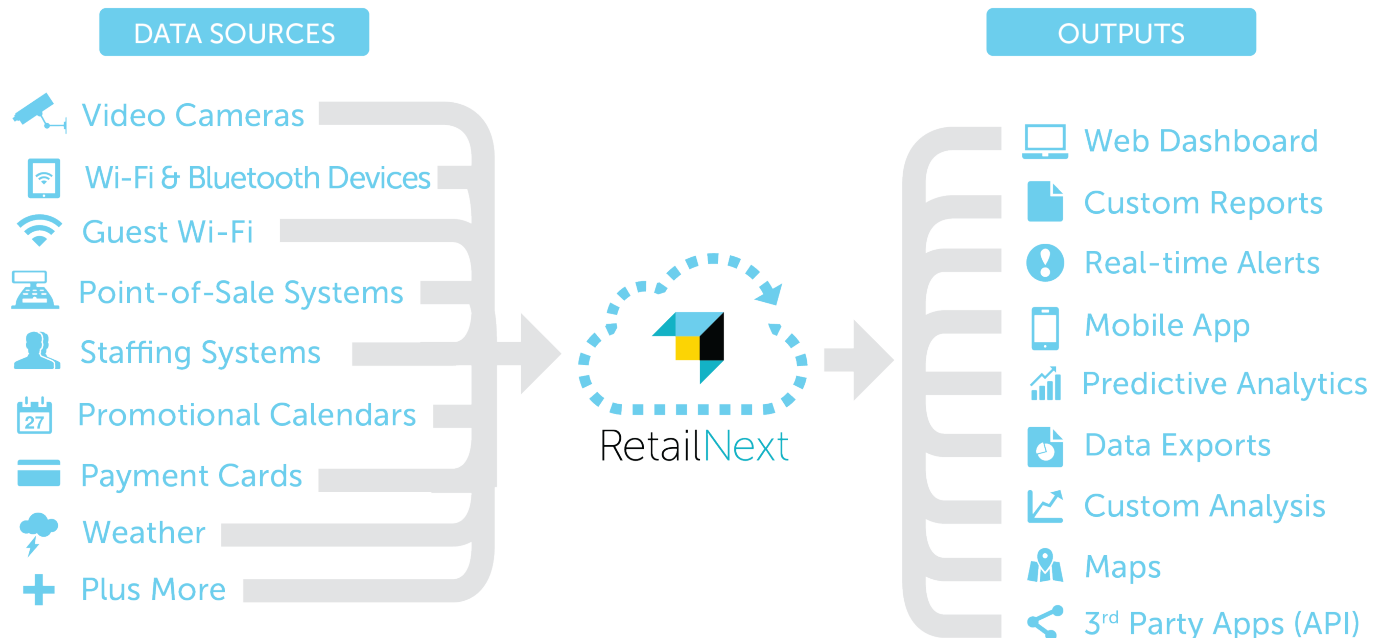
RetailNext comes with a versatile interface that can be accessed from a standard web browser or mobile device. The analytics console lets retailers view key metrics to a very fine level of granularity, making the information they need easily available in the format desired by function or area.

- View data in a variety of hierarchies
- Measure traffic, engagement, and conversion
- Compare staffing and queuing to traffic and conversion
- Integrate store layouts and SKUs
- View shopper demographics, loyalty, and lifestyle attributes
- View live or recorded video events
- Measure merchandise, window displays, and marketing effectiveness
- Provide secured and permission-based access at any level chain wide

RetailNext has a robust reporting engine designed to give retailers the information needed in the format desired with precise, actionable data.

- Schedule reports for daily, weekly, or monthly distribution
- Report for any time period (hourly, daily, weekly, monthly, YoY, etc.)
- View results by store, region, or store type
- Report separately on comp vs. non-comp stores
- Identify poor performing areas within specific stores
- Compare staffing to performance, all the way down to the individual employee level
- Export to a variety of file formats, including Excel and PDF
- Receive real-time alerts for specified events
- Define alerting conditions, including POS exceptions, traffic and queuing thresholds
- Send alerts to pagers, in-store messaging systems, and even smartphones

RetailNext can be configured to match the specific requirements and can be modified over time, as retailer analytics needs progress and grow. Retailers can choose the specific analytics types and input sources needed and add new capabilities at any time. These are some additional benefits:

- Scalable for any size enterprise
- Reuses the existing hardware infrastructure available in the store including video cameras, WLAN, and servers
- Open platform that integrates with third-party applications through API access
- Offers a professional analytics team for deeper insights and data analysis
- Provides hosted and on-premise options

RetailNext is transforming physical retail by taking all of the pain points away from retailers who are trying to collect and analyze massive amounts of store data. The cutting edge and precise technology addresses the issues of efficiency, effective reporting, scalability, and cost efficiency that retailers need.

RetailNext addresses critical questions that drive business success:

- Are shoppers engaged?
- Are my promotional offers working?
- Which messages sell best?
- What is my optimal store layout?
- Which fixtures are most effective?
- How do I align staff to customer demand?
- Does shopper behavior vary by store location?

The result?

A new level of business information — The ability to react to store events in real-time is shaping the way retailers stay competitive in an ever-changing industry. Through mobile and real-time technology, retail professionals are able to get real-time visibility into shopper behaviors, staffing to traffic demand performance effectiveness, and overall store performance to support better and more timely purchasing decisions.

Enhanced customer service — In addition to the shopper behavior insights that RetailNext provides to create the optimal shopping experience, the platform also delivers several operational capabilities that allow for improved day-to-day operations.

These include:

a) Marrying traffic and staffing data as well as shopper movement through the store to ensure customer-to-staff interactions meet store goals

b) Fitting room optimization technology

c) Queue analytics, management tools, and other service area analytics

By collecting and analyzing shopping behavior on a large scale in the areas of traffic and conversion, the data lead to actionable insights at service areas such as queues, fitting rooms, and customer service locations. Retailers are able to make informed decisions on when to align staffing to shopper demand and where based on the insights gained from in-store analytics.

Improved efficiency — The RetailNext platform collects, monitors, and analyzes store performance data for millions of shopping trips and provides insights across an entire chain. The actionable information is available at the store, regional, and company levels that allow for benchmarking performance, location comparisons, and measurable customer touch points.

Reduced capital expenditures — By replacing multiple point solutions with a single, integrated in-store analytics platform that reuses already-made hardware investments, RetailNext customers save capital expenditure costs and reduce their maintenance overhead for systems in their stores.

Within the last couple of years, there has been a noticeable increase in the number of physical retailers who are making assertive efforts to keep a competitive edge. Measuring store performance in all operating areas has emerged and evolved into a business priority for brick-and-mortar retailers worldwide. At the same time, retail marketing professionals have found a source for in-store information and engagement through a single platform that was not available before. Robust and scalable in-store analytics technology is transforming the retail industry. It's reshaping the way retailers operate and structure store strategies that are influencing the way shoppers shop, acquiring new customers at higher rates, improving customer engagement, and increasing loyalty among existing customers.

Gartner, a technology research company, believes there will be "explosive growth" with physical retail adopting in-store analytics. In fact, Gartner estimates that as business intelligence and analytics continue to rise as priorities for retailers, such efforts will reach $17.1 billion by 2016. Since RetailNext's inception in 2007, the company is experiencing rapid growth of over 100% year over year while partnering with hundreds of global and brand-name retail stores who are embracing in-store analytics.

Innovative retailers are implementing in-store analytics platforms into their stores located around the world giving them a sustainable competitive advantage. Technologies that deliver these types of analytics provide retailers significant growth opportunities resulting in improvements on company performance from a financial and execution perspective.

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3 THE COMMONALITIES OF E-COMMERCE & IN-STORE ANALYTICS

Today, the similarities between customer shopping paths and the analytics used to measure customer behaviors along the path to purchase for both e-commerce and brick-and-mortar retail are parallel. The graphic below depicts a side-by-side view of a customer's shopping path for brick-and-mortar and e-commerce retail with the available analytics listed for each path point.

RetailNext Analytics Brick-and-Mortar		E-commerce Analytics On-line
Customers who enter the store	**STORE TRAFFIC** Who enters the store? [1]	Customers who visit the website
Customer insights around demographics and frequency of visits	**SHOPPERBASE INSIGHTS** Who are your shoppers? [2]	Customer insights around demographics and frequency of visits
Customers who walk to a specific department, aisle, fixture, or product	**DEPT/PRODUCT TRAFFIC** Where do they go? [3]	Customers who click on a webpage that leads to a department, product, or marketing campaign
Customers who dwell at specific locations within the store and engaged with a product or fixture	**ENGAGEMENT EVENTS** What engages them? [4]	Customers who spent time on a webpage
Customers who purchased items at the point-of-sale/cash register	**PURCHASE CONVERSION** What do they buy? [5]	Customers who purchased the items in their "cart"

1. Store Traffic

For e-commerce and brick-and-mortar retailers, important metrics in understanding how on-line and physical stores are performing starts with store traffic. In any shopping experience, the first step in shoppers' path to purchase is the moment they enter the store. By understanding the amount of traffic visiting the store, by day of week and hour of day coupled with information that shows where their traffic is coming from or going to, retailers can identify easy ways to increase store revenue.

For instance, by knowing where website or store traffic is coming from, retailers can understand which marketing efforts are traffic drivers. RetailNext provides brick-and-mortar retailers with analytics that offer insights into what stores shoppers visited before and after visiting their store. By gaining insights into the shopping behavior that occurs outside the four walls, before and after visits to other businesses, retailers can develop more relevant marketing strategies that resonate with their shoppers. Frequently, these insights also lead to deeper understanding about product gaps or revelations about a potentially new target market.

Repeat visitors and unique visitors to websites have been consistently measured and have allowed e-commerce businesses to develop appropriate strategies based on these metrics. RetailNext offers the same metrics in physical retail. Additionally, by understanding the percent of "browsing" or pass-by traffic, the information captured is pivotal when developing traffic driving marketing strategies. Marketing professionals can measure the effect of increasing capture rate and translating the insights into sales.

Bridging the gap between repeat and loyal customers is instrumental in driving lifetime value of a customer. Loyal visitors are typically highly engaged with the store brand and have been proven to spend twice as much. Lower customer loyalty often illustrates the need for new content, products, store design, or improved shopping experience. Understanding the differences between new, unique, repeat, and loyal shoppers in the brick-and-mortar environment has never existed until now.

Also, retailers can now measure effectiveness of window displays on shoppers who are passing by the store. Visual displays used to entice pass-by traffic to enter the store or to demonstrate messaging about product or brand typically requires additional resources and significant expense to produce. However, these key visual programs speak volumes about the brand so measuring the effectiveness of various display concepts is essential to building brand loyalty. This concept is no different from that of e-commerce retailers who strive towards the same goals but instead work to develop effective home webpages to catch the interest of visitors that build engagement and drive sales.

RetailNext allows physical retailers the same advantages that on-line businesses have had for years by understanding display effectiveness. When changing a display, RetailNext offers powerful analytics tools that measure the impact display changes have on visitor behavior. Comparing various displays or promotional campaigns across stores give physical retail the ability to optimize programs that meet the key strategic business objectives.

2. ShopperBase Insights

When a customer enters an on-line or physical store, both RetailNext and web-based analytics providers, are able to provide comparable insights into the types of customers who enter based on gender, age, loyalty, and geo origin (where customers reside by city, state, and country). Unlike any other in-store analytics provider, RetailNext is the first to develop a revolutionary product that combines these unique analytics into a complete set that provides deeper insights into shoppers within a physical environment. This groundbreaking product is called ShopperBase.

ShopperBase is a full product suite that helps retailers understand

- Gender demographics – Whether a shopper is male or female
- Age – Shown in visitor age "groups"
- Unique visitor - Number of unique shoppers who walked by the store
- New visitor - Shoppers who have not previously visited your store
- Repeat visitor - A shopper who has been to your store and has come back
- Visit duration - The average amount of time customers spent inside the store
- Geo-Origin – The shopper's geographical origin compared to the location of your stores. This includes what cities, states, and countries shoppers reside in on a store-by-store and chain-level basis, what percentage of shoppers are local versus non-local, and whether they're domestically versus internationally located.
- Cross-Store Spending – What other industries and stores customers shopped at on the same day they shopped at your store
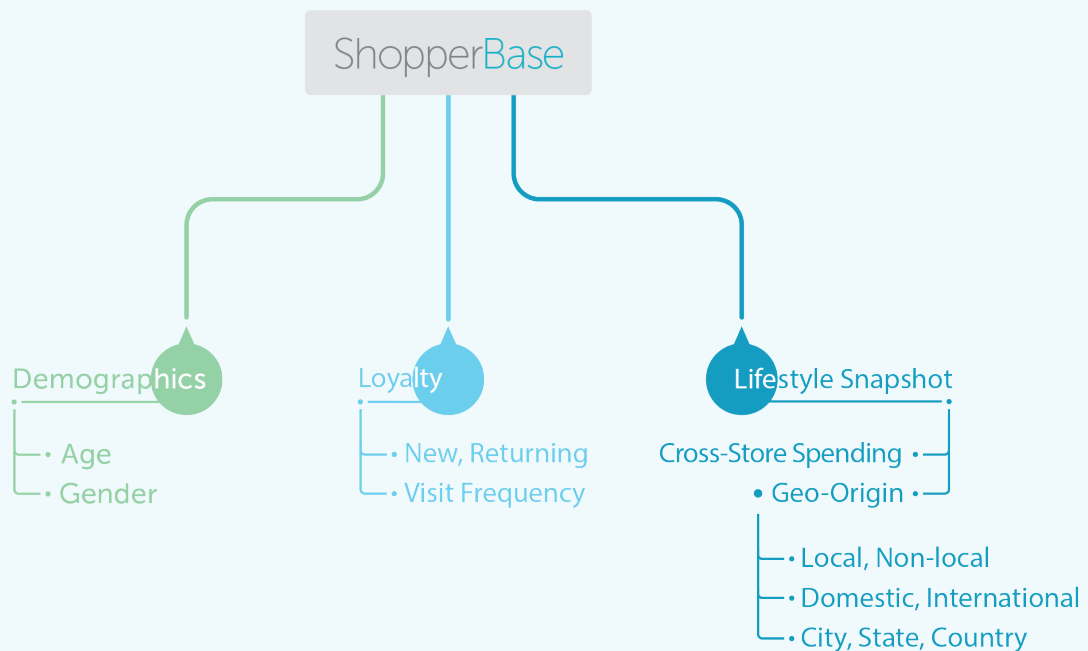
3. Department or Product Traffic

The next step in a shopper's experience is visits to a specific department or product within the store. RetailNext and e-commerce analytics provide a visual assessment of how users interact with the store's products, aisles, departments, marketing promotional displays, and other sections within the store. For physical retailers who use RetailNext, combined analytics help answer questions like these:

- Is the store layout optimal for getting customers to spend more than they initially intended?
- Are my customers seeing the fixtures/products that resonate with them?
- Are shoppers finding what they're looking for in the store or is the layout/messaging confusing?
- Are my promotional campaigns delivering to the sales expectations and are they driving engagement with the customer?
- Where are my customers going within the store and how can I drive sales with higher margins?

Similarly, e-commerce analytics provide "in-page" analytics that offer insights into a visual assessment of how users interact with the webpages, which help answer questions like these:

- Is the layout optimal for maximizing sales?
- Are my users seeing the content that interests or engages them the most?
- Are my users finding what they're looking for on the page?
- Are my calls to action motivating or visible enough?
- What links are users clicking?

By understanding these variables, retailers can truly understand what products, marketing campaigns, design, and products impact the way shoppers behave in both on-line and physical environments. Based on the shopping behavior patterns, retailers are better equipped to make data-driven decisions in implementing optimized strategies that provide an improved shopping experience.

4. Engagement

After shoppers travel to their destination, they usually engage with a product, fixture, or display that captures their interest. Both e-commerce and RetailNext analytics measure shopper engagement. While e-commerce analytics can measure the amount of time visitors spend on a webpage and user interaction with "call to action" (CTA) buttons, RetailNext offers multiple types of engagement analytics. These include measuring
1) exposure to a specific area, product, or fixture and 2) engagement with that area, product, or fixture. The analytics also include the time spent at the area or fixture and can tie the average transaction value based on the engagement event.

By understanding the customer path to purchase, retailers can gain insights into what fixtures, displays, and products are capturing the most exposure and engagement. They can see whether changes in layout, design, pricing, or messaging increase engagement. By measuring the changes implemented, retailers can understand which strategy has the biggest impact on exposure, engagement, and ultimately revenue.

5. Sales Conversion

Once shoppers have found the products they want, the most common next step is purchasing. For both e-commerce and RetailNext analytics, measuring the number of sales transactions and understanding what drivers lead to increased sales is key. Today, retailers are able to measure variables that impact the bottom line including

- Queue performance (average wait time, length of queue, average service time)
- Abandonment rates prior to purchase
- Sales
- Returns (dollar amount or number of items)
- Average number of items purchased per transaction
- Average sale per transaction

Fundamental sales generators include traffic, conversion, and average transaction value. A key differentiator for RetailNext is the ability to layer a variety of different store metrics on top of the fundamental sales generators. Retailers are equipped to derive deeper and more detailed insights into the customer shopping experience beyond what other in-store analytics providers are able to offer.

A particular area that may impact the final stages of a shopper's path to purchase is at the queue. For e-commerce retailers, queues are not common and generally do not exist. Instead, on-line shoppers can simply click to view their "cart" and proceed with the checkout process quickly without waiting "in line". As a result, on-line shoppers experience a faster, simpler checkout process compared to physical retail. For physical retailers, they need to take queue metrics into consideration and measure how queues impact conversion.

For instance, if a line is too long and the wait is more than five minutes, Retail Customer Experience claims that, "Half of all customers will actively avoid the retailer or brand in the future." But how do physical retailers measure their queue effectiveness?

RetailNext's queue analytics allow retailers to monitor and understand queue behavior by measuring a number of metrics like the ones listed below. Retailers can then identify problematic areas and apply improved strategies based on the data.

- Average queue length
- Queue wait time (average and distribution)
- Service time (average and distribution)
- Abandonment rate
- Peak service times
- Service associate efficiency

Linear   Snake   Unstructured

REGISTER

SERVICE AREA
> Average service time

QUEUE
> Length
> Wait time
> Abandonment rate
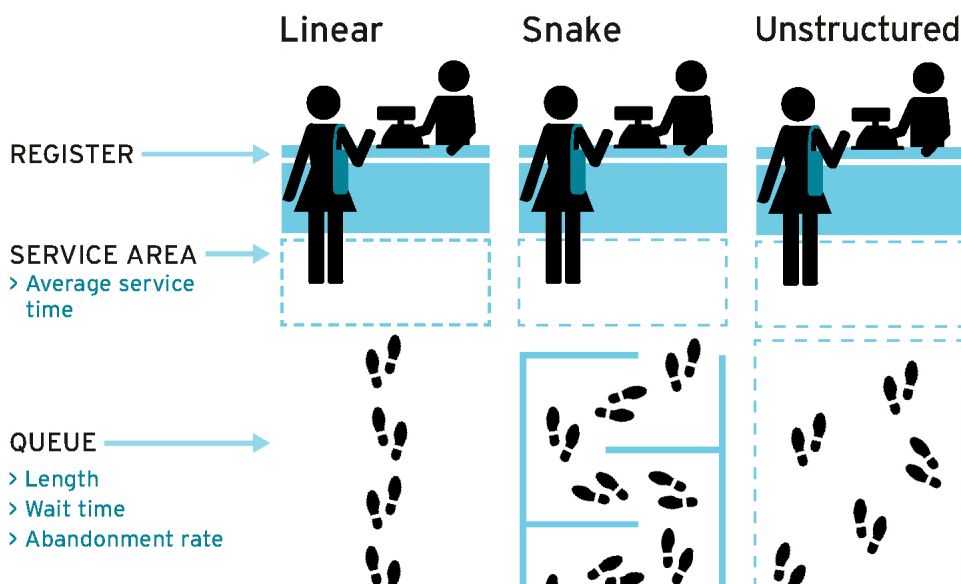
Since RetailNext is an integrated platform that processes data from multiple sources, retailers can overlay a number of different analytics on top of each other. They can discover new insights into various areas of the business and better understand how these areas are interconnected and how they impact store performance. Examples include

- Traffic to staff ratios: How the impact of aligning staffing schedules to traffic demand increases overall sales
- Region and chain-wide conversion: Benchmarking performance and developing strategies that drive performance at the store, region, and company level
- Category or product conversion: The number of customers who browse products and purchase the item after visiting a specific department or fixture, seeing promotional campaigns, or receiving assistance from store associates

Through the delivery of continuous real-time data around in-store performance metrics, retailers are better able to identify high and low performing areas within their stores. RetailNext allows retailers to make data-driven decisions and implement improved company strategies around operations, service, marketing, merchandising, store and visual design.

High wait times impact store performance. **48%** assume your business is poorly run.
– Customer Service Insights.

38% of customers would consider not returning to a store with long or badly managed lines.
– Business 2 Community

81% of dissatisfied shoppers will tell others about their unpleasant checkout line experience.
– Business 2 Community

4 THE BENEFITS TO IN-STORE ANALYTICS

The benefits of in-store analytics are constantly evolving. Through the use of advanced tools such as RetailNext, physical retail can experience the same benefits as those offered by e-commerce-style analytics. Retailers are able to use RetailNext in cross-functional ways, serving the entire organization at all levels. By providing a centralized and cohesive set of metrics, store management and corporate executives can

1. Increase comparable store sales
2. Optimize marketing spend
3. Enable in-store personalization
4. Generate higher shopper engagement resulting in improved sales
5. Build customer loyalty
6. Reduce capital expenditures
7. Integrate loss prevention solutions
8. Make data-driven decisions
9. Create better benchmarks
10. Measure actual performance against KPIs more effectively and efficiently
11. Understand opportunities to drive more valuable traffic to the stores
12. Improve overall store performance

When multiple in-store data sources are merged into a full-featured analytics platform, a new level of insight is delivered, one that offers a complete picture of what is happening within the four walls of the store. An added benefit of a platform solution is that all functional areas within the retail business are able to benefit; from the operations executive who cares if stores are executing to the highest level; to the marketing team who wants to make sure they are getting the right traffic through the door.

These retail professionals are able to gain insights into customer shopping behaviors that impact top- and bottom-line goals and allow for benchmarking across all stores. Listed below are different types of retail professionals who are implementing in-store analytics into their business objectives and department strategies.

Operations

Marketing

Merchandising

Store Design

Loss Prevention

Senior Management or C-level Executives

Operations:

Store operation professionals are able to easily monitor performance on a store, district or regional, and company level. With RetailNext, operation professionals have the tools to benchmark performance, develop relevant key performance indicators (KPIs), and segment the store performance based a variety of measurements. They can also

- Drive sales through conversion and ATV improvement
- Better align staff schedules to traffic demand resulting in improved sales
- Optimize queue performance for better shopping experience
- Optimize all customer touch points within the store

Marketing

Marketers are able to test and measure store promotional campaigns, while understanding the effectiveness of those efforts on sales and the brand. The platform enables personalization capabilities that will allow the retailer to engage with valuable shoppers and provide data to enable an omnichannel shopping experience. RetailNext takes the guesswork out of retail marketing by providing marketing professionals the ability to

- Measure and optimize marketing campaigns
- Measure window display effectiveness
- Know your shopper demographics and their behaviors
- Understand unique vs. new visitors and average shopping duration
- Identify and engage your shoppers the moment they enter the store
- Personalize the shopper in-store experience
- Understand the impact of digital device capabilities within the store

Merchandising

Retailers can gain insights around having the right products in the right place. When it comes to measuring store promotional programs and merchandising location performance, available insights into customer shopping patterns have been limited for brick-and-mortar environments. Today, RetailNext's data analysis and visualization tools deliver customer-centric insights as never before seen in physical retail. Merchandising professionals are now well equipped to

- Take the guesswork out of product placement decisions
- Understand shopper movement and identify high- and low-engagement areas
- Remotely monitor display compliance any time, anywhere

Store Design

Optimize floor plan layouts that generate sales. With RetailNext, retailers are able to build a store layout that drives an increase in traffic, average transaction value, and conversion for all the stores. The insights gained enable store design professionals to create improved customer-centric floor plans that enhance merchandise, space performance, and deliver a relevant in-store shopping experience which translates into sales. Apply a test-and-measure approach to validate store and storefront designs prior to company-wide rollouts. Store design professionals can

- Identify traffic patterns and paths for shoppers
- Better understand the optimized layouts
- Make layout changes and measure the impact on merchandising and conversion performance
- Understand the differences in exposure vs. engagement metrics and build strategies that promote more purchasing

Loss Prevention

RetailNext point-of-sale analytical tools and full-featured video management capabilities help loss prevention professionals combat shrinkage, theft, and fraud. By combining in-store analytics and loss prevention functionality, retailers can save considerably on capital expenditures and ongoing costs. Loss prevention professionals can

- Reduce video reviewing time
- Cut theft up to 75%
- Detect fraud with pre-defined, high-risk transactions
- Resolve cases faster with one-click access to transactions, receipts, and corresponding video

CASE STUDIES:
Learn how RetailNext customers improve store performance.

Example 1: Understanding Shopper Behavior

A-B testing is a technique that is frequently deployed by websites to test alternate marketing campaigns or site functions. Until now, brick-and-mortar retailers were not able to easily test things like different fixtures, signage, products, product placement, store layout, staffing tactics, and many other strategies to identify the best one that generates the most value. They used data resources from sales transactions (POS systems) as their source of measurement, which is a lagging indicator to understanding overall store performance. However, in-store analytics point solutions that merge multiple data sources are now bringing on-line A-B testing abilities to physical retail stores. In fact, there are many ways in which analytics can reveal compelling reasons to make profit-boosting changes, especially with the help of A-B testing.

In a recent case study, a large retailer with more than fifty stores used RetailNext to A-B test two different apparel fixtures in its stores (hereafter referred to as the Focal Fixture and the Secondary Fixture). By implementing the RetailNext in-store analytics platform, the retailer was able to monitor and analyze shopper interaction between both fixtures and gain deep insights into how shoppers respond to them.

RetailNext was able to measure and analyze fixture exposure, customer engagement to the fixtures, and customer conversion. Measurement revealed that the Focal Fixture had a 93% exposure rate, more than double the exposure of the Secondary Fixture, while the Secondary Fixture had a conversion rate of more than double the Focal Fixture. Being able to identify the distinct drivers of each fixture's performance allowed the retailer to optimize its use of these in-store assets, providing the opportunity to increase overall sales.

The retailer sought to more deeply understand how effectively two fixtures located in different parts of the same store influenced shopper behavior, as compared to each other and to total store traffic. The only relevant metrics available from existing legacy systems were total store traffic and average fixture spend. These limited data points allowed the calculation of very rudimentary performance metrics like percent conversion and average fixture spend for the total set of store visitors. By studying how shoppers responded to these two fixtures, the retailer hoped to uncover insights that would enhance its use of similar displays throughout the company, leading to improved overall sales.

After deploying the RetailNext in-store analytics platform to collect and analyze more granular data about shopper responses to each fixture, the retailer gained deep insights into storewide and fixture-specific shopper exposure, engagement, average dwell time, and conversion. The point solution analyzes data from video cameras, POS systems, and other sources and outputs results in a variety of easy-to-use formats. For instance, traffic around a fixture can be displayed as a heat map overlaid on the floor plan to visualize customer movement.

The fixture analysis revealed these areas for improvement to build sales:

- More specific measurement of fixture performance uncovered specific recommendations to increase sales for different fixture types in different areas of the store.
- The Focal Fixture had high exposure and low engagement. To improve engagement and, ultimately, conversion, the retailer could display trend merchandise instead of basic merchandise.
- The Secondary Fixture performed well in terms of engagement and conversion, but it suffered from low overall exposure. Driving traffic to this fixture with destination merchandise or marketing efforts should result in higher fixture productivity.
- The use of RetailNext analytics allowed for deeper insights to drive sales at both the store and company level that had previously gone undiscovered.

This case study referred to the two fixtures the retailer chose to investigate as the Focal Fixture and the Secondary Fixture. Similarities between the two fixtures included the category of product displayed (apparel) and a very close average spend ($25 for the Focal Fixture and $26 for the Secondary Fixture).

However, the Focal Fixture was located at the front of the apparel department while the Secondary Fixture was further back in the center of this department. Although these oversimplified metrics showed these fixtures to be very similar, deeper investigation using RetailNext showed that shoppers behaved radically differently around the two.

The Focal Fixture had a very high exposure rate of 93% due to its location near the apparel department's entrance. The engagement at the fixture was 15%, highlighting the fact that many shoppers walked past the display without stopping. Once shoppers stopped, they had an average dwell time of 13 seconds. Of all the shoppers who entered the store, only a small fraction bought something from the fixture. All of these metrics indicated that the fixture was failing to engage and convert shoppers.

In comparison, the Secondary Fixture had a much lower exposure rate at 38%. However, the engagement rate was a much higher 28%, indicating that those who made it back to the display were more likely to shop the fixture. Once shoppers stopped, they had a much longer average dwell time of 17 seconds at this fixture, and they converted at three times the rate of Focal Fixture shoppers. These additional data points revealed strong differences in how the fixtures influenced purchasing.

This more granular investigation of shopper behavior identified opportunities for the retailer to make changes that could lead to overall sales increases. The Focal Fixture needed an increased ability to engage the large number of shoppers that passed its way, which could be accomplished by displaying trend merchandise as opposed to basic merchandise. The Secondary Fixture was much more effective as a display but needed more exposure to shoppers, suggesting that the retailer should display destination merchandise at this fixture or apply marketing efforts in the store to increase traffic to this part of the store. By identifying these specific initiatives to individually improve how each fixture contributes to overall sales, the retailer became more empowered to optimize its in-store assets—and ultimately to apply these lessons across the entire chain. The RetailNext platform was a critical contributor by enabling the discovery of these differences in how the fixtures performed and providing ongoing measurement of how changes to these two fixtures affect the bottom line.

Example #2: Maximizing In-store Opportunities

A sporting goods retailer that operates in more than 100 stores in over 20 states decided to remodel the shoe department to make higher margins and building brand loyalty. The shoe section featured both a shoe wall and floor displays where customers could locate their specific size once they'd identified the right shoe on the wall. The retailer noted that if they could engage shoppers with shoe displays and if shoppers "picked up" a shoe, there was a higher probability they would purchase. So, for the sporting goods retailer, building engagement was essential to profitability.

Before the remodel, the retailer realized that the shoe floor had a 30% engagement rate, much higher than the 10% for the wall. Moreover, 30% of traffic flowing through the floor displays engaged with products as opposed to just 10% of shoppers at the shoe wall. A careful review of video revealed that benches positioned along the shoe wall were a significant hindrance to customer interaction with the product, sometimes cutting off access altogether.

After reviewing these data-driven insights, the retailer remodeled the footwear department to feature a more open floor plan and sales jumped 22%. Based on the successful remodel, the retailer implemented the new footwear department redesign chain-wide. The in-store analytics point solution eliminated the guesswork in the redesign and helped drive sales chain wide.

In the examples above, physical retail improved sales through the use of RetailNext's advanced in-store analytics. They were able to optimize staffing, store design, and store layout with ease. Similarly, e-commerce retailers share common objectives to understand their customer behaviors and store performance. However, for on-line retailers, they evaluate website layout, design, and the electronic displays that are equivalent to physical store layouts, design, and promotional displays. An example of what many e-commerce stores invest in for enhanced store performance is product navigation features on their website.

On-line retailers spend millions of dollars to design and properly lay out webpages that generate the most traffic and engagement. By measuring the impact of navigational menus, they can identify low clicks on certain menus in real time. On-line retailers can use these results to immediately optimize low-performing navigation bars. The optimized navigational design and layout allow consumers to find appealing products and services more easily and quickly, decreasing website abandonment rates. The longer shoppers are engaged with an e-commerce website and are able to easily navigate throughout the site, finding the products they want when they want them, the more sales conversions are likely to increase dramatically.

22%

Conclusion:

Clearly, e-commerce analytics and RetailNext's in-store analytics measure equivalent areas that impact store performance. There are many similarities but one key difference between the two types is simply the environment, analytics for an on-line environment compared to off-line. Unlike any other platform, RetailNext can collect, analyze, and visualize data from multiple sources providing brick-and-mortar retailers with the kind of insights that have helped on-line retailers become so effective. RetailNext is the leading in-store analytics provider that can process huge amounts of data from the largest number of data sources. It helps physical retail increase same-store sales, reduce labor costs, boost marketing campaigns and display effectiveness, and discover new opportunities for growth.

For physical retailers to keep a competitive advantage among other retailers and especially competing e-commerce businesses, they will need to continue to measure and improve shopper convenience and personalized services that come from an in-person interaction. This, combined with continuously evaluating overall store strategies and making an effort to understand changes in customer behavior or needs, will result in physical retail thriving in an ever-changing environment. If the future is anything like the past several years, the number of data sources will only proliferate, extending the value of analytics and fine-tuning the accuracy of data-enabled insights. Retailers who adopt comprehensive analytics solutions will be able to provide a best-in-class store experience and keep customers coming back for more while increasing the sales per shopper, both on and off-line.

![RetailNext — Comprehensive In-Store Analytics]
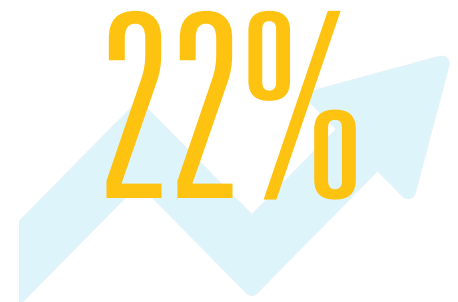
ABOUT RETAILNEXT >

RetailNext is the leader in Applied Big Data for physical retail, delivering real-time analytics that enable retailers, shopping centers, and manufacturers to collect, analyze, and visualize in-store data. The patented solution uses best-in-class video analytics, Wi-Fi detection, Bluetooth, on-shelf sensors, and data from point-of-sale systems and other sources to automatically inform retailers about how people engage with their stores. The highly scalable RetailNext platform easily integrates with promotional calendars, staffing systems, and even weather services to analyze how internal and external factors impact customer shopping patterns – providing retailers the ability to identify opportunities for growth, execute changes, and measure success.

RetailNext tracks more than 500 million shoppers per year by collecting data from more than 65,000 sensors in retail stores and analyzing trillions of data points annually. Headquartered in San Jose, CA, RetailNext is a growing global brand operating in more than 30 countries.

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