indium
Make Technology Work

How are AI and ML models helping
the Retail industry re-imagine
the customer experience

A Whitepaper

Introduction

Focusing on today's digital era, retailers looking for customer retention must create a personalized customer experience using emerging technologies. Nevertheless, within the retail industry, several technologies are at play, creating a dilemma over choosing the right technology that provides immense value.

Digitalization, on the other hand, influences how the retail industry operates, builds the customer base, and cements customer loyalty. Physical stores remain a priority but increasing e-commerce platforms and online experiences cannot be overlooked.
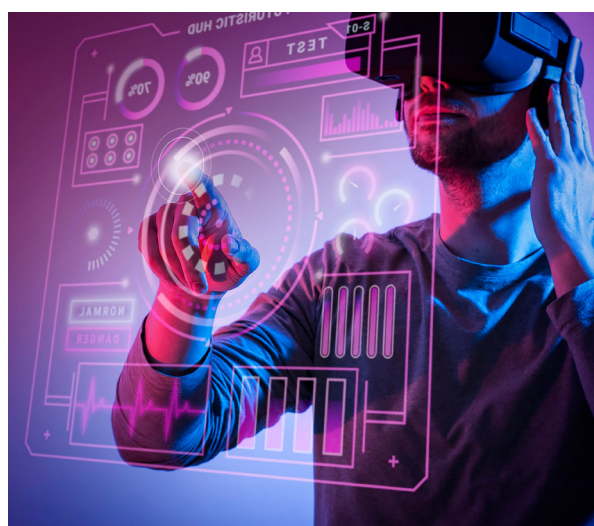
Therefore, to stay competitive, retailers must create an in-store customer experience that is at par with the online shopping experience and its benefits. This is where artificial intelligence (AI) integration could benefit retailers with services such as faster checkout, personalized recommendations, and instant customer support accessibility.

Conventional marketing segmentation techniques are lengthy procedures that employ many company resources to offer personalized offers to the demographic-based segments.

Therefore, in this fast-paced retail industry, it is essential to evolve withthe advances in digital transformation to help achieve faster outcomes and improve the customer experience.

Leveraging machine learning (ML) and AI technologies enable retailers to perform advanced analytics and extract value from their operational data. Consequently, retailers gain deeper insights to create customer microsegments and offer personalized services to provide unparalleled customer satisfaction resulting in customer retention.

Moreover, due to the rapid adoption in the retail market, forecasts reveal that AI in the retail industry is expected to witness a 34.45 market growth rate with market size of USD 19.9 billion by 2030.

ARTIFICIAL INTELLIGENCE IN RETAIL MARKET
GLOBAL OPPORTUNITY ANALYSIS AND INDUSTRY FORECAST (2020-2027)

Meticulous RESEARCH

DRIVERS
- Growing Awareness about AI and Big Data & Analytics
- Adoption of Multichannel or Omni channel Retailing Strategy
- Need to Enhance the End-User Experience and Improve Productivity

MARKET SEGMENTATION

BY APPLICATION
- Predictive Merchandising
- Programmatic Advertising
- Market Forecasting
- In-Store Visual Monitoring and Surveillance
- Location-Based Marketing

BY END-USER
- Food &Groceries
- Health & Wellness
- Automotive
- Electronics & White Goods
- Fashion& Clothing
- Others

BY GEOGRAPHY
Europe
North America
Latin America
Asia Pacific
Middle East & Africa

Asia-Pacific: The Fastest Growing Market

CAGR (2020-2027) 34.4%

Market Size USD 19.9 Billion

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According to McKinsey reports, retail companies that excel in creating personalized experiences generate 40% more revenue with real-time services due to increased sales by upto10%.

Most retail leaders have recognized the value of AI and machine learning in creating a personalized customer experience, but new trends have revealed that these technologies also boost marketing strategies and customer relationship management.

As a result, retail companies embracing AI deployments will likely fuel the retail operations to understand customer perspectives and regain massive shares across various market segments.

The most significant benefits are gaining greater insights and product recommendations based on customer purchase history, engagement, browsing, and buying patterns on social media and contextual communications.

Curating personalized experiences is the retail industry's future and brings new personalized message trends to drive sales and augment customer engagements. Retail companies are gradually building Omni channel points in the global marketplace,

and the proliferation of AI-centric retail startups has re-imagined the retail experience. In recent years, in-store experiences such as scanning and shopping have redefined the digitized retail experiences for customers by addressing some of the critical challenges of conventional shopping.

As the retail industry experiences an AI transformation, customer experiences have already replaced

issues such as long queues, time-consuming purchase and checkout matters, and addressing customer queries by providing a virtual experience that fulfills all the customer necessities at the fingertips.

With rapid advances in the industry, upcoming retail ventures will likely invest heavily into building digital relationships with customers, embrace new extensions of AI and ML technologies, and offer state-of-the-art facilities such as self-service, omnibots, actionable analytics, and AR and VR for a augment visual experience.

In this paper, we will explore some of the essential contributions of AI in today's retail industry and the new avenues created for marketers when facilitating their efforts towards improved customer experience.

We will also discuss how intelligent systems redefine and transform this industry by going beyond traditional approaches and building a personalized shopping experience and customer-marketer engagement to gain a solid digital footprint in the industry.

Global Artifical Intelligence (AI) in Retail Market Share, By Technology, 2020

- Computer Vision
- Machine Learning
- Natural language Processing
- Other

39.7%
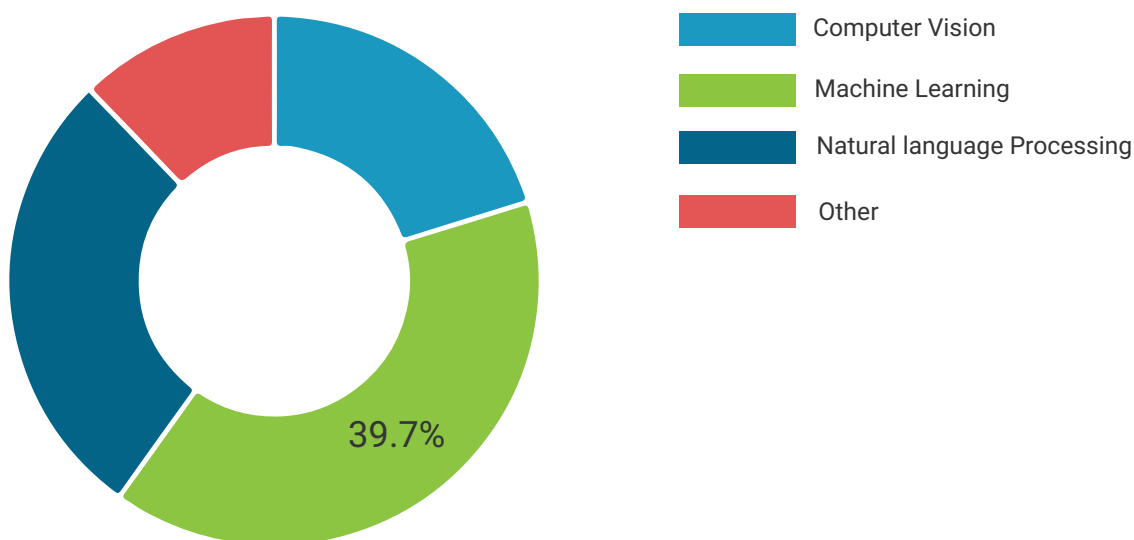
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AI for the Modern Retail Industry: Prioritizing Customer

Experience

An age-old business mantra stating "Customer is King" reflected the importance of customers across businesses. This rule still holds true in the day and age of e-commerce. Customer satisfaction is crucial to facilitating successful business, whether a truly digital e-commerce platform or in-store.

When considering a transformation in the retail industry, the customer holds power to dictate the outcomes of a business, primarily due to endless

winners as these intelligent solutions provide the means to exercise control over business prosperity while focusing on some of the critical aspects of customer satisfaction to stay ahead of the competition.

Among the recent trends, the intersection of AI and retail has seen many advances, and new competitors are transforming this industry with precious contributions such as:

AI-Based Hyperpersonalization

Website and mobile applications have become the core of e-commerce. While customers constantly navigate through the application and browse for appropriate product categories that meet their requirements, user experience becomes essential for such scenarios.

Becoming genuinely digital would require companies to use every piece of data at their disposal to unlock more excellent opportunities by understanding the customers and their prefeereences.

This data, coupled with AI, provides deep insights about customers and helps create initiatives and personalization to maintain the customer base by providing curated content based on customer preference while increasing revenues for the companies with improved services.

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customer preference while increasing revenues for the companies with improved services.

Personalization tactics today comprise a new trend called hyper personalization using AI, which provides the necessary automation and insights to help guide the customers to serve each unique customer base with personalized content.

Hyper personalization has become the new norm in the industry as it enables marketers to use customer data to offer customized information and recommendations to customers.

These customizations are based on the purchase history, browsing patterns, geographic locations, and behavioral data.

According to a marketing report, 63% of the top marketers have observed an increased customer conversion rate due to personalization. As more e-commerce platforms adopt AI, hyper-personalization has become a critical component of baseline tactics to stay competitive.

The ever-changing customer needs require more competent strategies

to optimize the process to consistently offer insights to identify hidden opportunities to be included in the marketing strategies and heighten customer experience.

No matter the services, AI has significantly transformed how customers interact with the web applications with improved in-app search personalization and rank-based product

recommendations for increasing customer conversion and some gamified approaches that allowcustomers to be rewarded with points that can be redeemed instantly or at a nearby store of the concerned brand.

Using AI most certainly benefits the customers, but marketers are provided with invaluable information to optimize their resources and help determine impactful strategies to increase revenues.

During new campaigns, AI guides shoppers with dynamic product recommendations most relevant to their journey in real-time. In-page suggestions assist customers with purchases, while mini-cart suggestions assist customers with easy add-ons.

Holding, "How Brands Are Using AI to Hyper-Personalize the Customer Journey."

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Similarly, out-of-stock recommendations, following availability dates, and similar stock items matching the buyers browsing history provide customers with a well-rounded strategy to maximize their experience with a personal touch that uplifts customer loyalty and increases revenue.

Implementing personalization strategies based on AI-enabled automation and analytics increases customer satisfaction while driving brand loyalty and creating a willingness to spend, leading to enhanced marketing effectiveness.

Use Case

Sephora, a retail beauty company, has significantly improved its e-commerce offering with AI-based applications that allow customers to identify their choice of shades by uploading their photographs. The primary issue highlighted by the company is that customers often have difficulty with product discovery, and implementing AI and augmented reality has entirely transformed their customer experiences and journeys. The company further illustrates that large-scale

deployment of AI has enhanced several critical processes, from matching shades to recommending personalized products for the customers. At the same time, enabling customers to visualize their products before transactions has reshaped the online shopping experience for their customer base with a satisfactory and straightforward process that minimized various customer-centric issues during in-store purchases for beauty products[2].

Is AI Helpful for Customer Loyalty Programs?

AI has been instrumental in enriching customer loyalty programs by using machine learning models to predict highly engaging customers to customize their loyalty programs to create a positive experience for the customers leading to higher conversion rates.

In an annual "Future of Marketing" survey, Brightedge reveals that over 500 digital marketers at Fortune 500 companies were split evenly across B2B and B2C companies over one month.

The survey focused on gaining insights into the current state of how brands to implement AI to deliver a personalized customer experience.

The market responses indicate that companies have become more receptive to adopting AI for better customer experience with the help of intelligent content curated for their customers.

Most notably, the findings revealed that three themes dominate the business planning of marketers, namely personalization, voice search, and the subsequent extensive technology adoption in the form of AI.

According to these marketers, 29% of the respondents believe in personalization alone to create a significant market base, whereeas

26% believe customer loyalty programs can benefit from respondents are optimistic about the benefits of implementing AI for in-app voice searches to help enhance their experience

AI-assisted personalized experience as all major touchpoints and segments can be integrated to offer personalized incentives within the customer loyalty program.

In addition, AI can create supplementary ways to incentivize customers with rewards from partner sites.

Similarly, Brightedge also reveals that 22% of the respondents are optimistic about the benefits of implementing AI for in-app voice searches to help enhance their experience [3].

AI to boost Customer Engagement

Not implementing AI to elevate the experience and boost customer engagement is a step back that restricts companies from reaching their potential. Established brands emphasize returning customers that have developed brand loyalty.

But at the same times, these companiesfocus on new customers and achieve brand loyalty by increasing customer engagement. It is of the notion that the more engaged the customers are with the brand, the more likely to have to return customers to foster brand growth.

BrightEdge, "60% of Enterprise Marketers Set To Use Artificial Intelligence (AI) in Content Marketing Strategy This Year."

Retail companies use AI-enabled chatbots to efficiently enhance customer engagement to offer premium customer support and increase engagement. These intelligent bots help customers to search for relevant products and receive personalized notifications and suggestions based on their preferences and purchasing behavior. AI has also significantly improved how customer queries and grievances are resolved today in e-commerce.

Use Case: Fashion Retail Industry

As consumer demands continue to evolve with new trends in the market, one such industry that has witnessed the tremendous impact of integrating AI is the fashion retail space. Latest styles and Fashion trends are followed by customers religiously, and as such, the demand in fashion retail necessitates a quick turnaround time because of the rate at which fashion trends change over time.

Customers of the fashion retail space invest a lot of time navigating the web application to find the right match. In this context, top fashion brands like Tommy Hilfiger have invested in AI to increase customer engagement.

Mainly, the company has implemented an AI-based chatbot integrated into different autoplay video advertisements on their website or applications.

This means that whenever customers view any ad, a chatbot will likely pop up over the video to guide customers with additional information, thus providing an extra engagement layer.

Tommy Hilfiger's chatbot is accessed as a call to action over the video ads to encourage users to engage and receive information to optimize their purchases and experiences.

Not just information, but the chatbot helps to add chatbot-suggested products to be automatically redirected to the company website, where items would be already added to the cart as per the customer interaction related to tastes and required sizes.

The purpose of incorporating chatbot overlay is to increase interaction and raise the standards of consumer engagement while also leading to higher customer retention[3].

What Can More be Covered for Customer Engagement?

A boost to customer engagement and interactions can be further strengthened when AI is implemented for exchanges and to enable a simple feedback mechanism for a timely resolution to customer issues.

This goes beyond the abilities of AI-based chatbots to respond to straightforward questions, as modern AI incorporates sentiment analysis that helps understand users' intent and emotions from various opinions provided in the form of feedbacks or social media interactions.

Alternatively, sentiment analysis also helps identify the sentiments of customers based on product feedback offered through emails and open-ended surveys.

As an added advantage, AI-based analysis helps to identify unsatisfied customers by analyzing whether thecustomer sentiment towards a product has changed over time and tying the feedback to target the

customers for retention with timely solutions to their concerns. Sentiment-based analysis using AI can also help identify customer churn by understanding how actively customers engage with different rewards programs.

Use Case: Customer Churn Prediction

With increased customer engagement and personalized experience, it has been noted that brands have achieved tremendous success and revenue with improved customer retention. But the analytics to understand customer behavior and purchase patterns also reveal a critical detail that is equally essential.

Mainly, these AI-enabled analytics helps to identify customers who are unsatisfied with specific services, are likely to opt out of the brand's services, or have stopped using a particular product. As such, brands are on the verge of losing customers. Therefore, companies must identify unsatisfied customers and customer churn to address these concerns.

RIS News, "Tommy Hilfiger's New Chatbot Feature Engages Shoppers."

What Do We Provide?

At Indium Software, we have provided state-of-the-art solutions using AI to address the problems associated with customer churn. We offer a predictive AI engine that allows finding customers likely to churn from various customer segments in advance using the customer activity data.

As a result, companies can focus on timely intervention by addressing the problem areas and retaining customers. This AI-enabled prediction also allows companies to minimize the churn rate over a period and effectively continue the inflow of returning customers.

Product Intelligence for the Retail Market

The customer experience of a specific brand does not necessarily build on interactions and reward-based loyalty programs alone; the top brands thrive in the competitive market by meeting customer demands with timely availability of stocks.

However, maintaining accurate inventory has challenged both e-commerce and brick-and-mortar stores. By connecting different aspects of inventory management and integrating AI, retailers gain insights into stores, the demand for the products to manage inventory appropriately, and customer satisfaction.

Several times, customers cannot purchase a product despite repeated visits, and this issue is eliminated by AI inventory management for retailers. Nowadays, with the help of AI assistance, retailers implement smart shelves to quickly identify out-of-stock products, misplaced items on the shelves, and any pricing errors.

This allows retailers to free up more associates to focus on creating a unique shopping experience for the customers.

Leveraging AI can further help optimize inventory by using stock-keeping units (SKUs). The retail market generally comprises endless inventory lists, which is not feasible in the digital age.

Therefore, to work smarter and add value to the business, retailers must understand how to deal with them and gain maximum value. SKUs are alphanumeric codes assigned to the inventories to keep track of specific products.

But these are unique codes that vary according to price, style, brand, color, or the type of the product and its sizes. In addition, these SKUs can be customized to identify store information and keep track of the products most in demand.

This scenario is tailor-made for AI; therefore, a retailer deploying AI engines can help track various cross-functional inventories and sales.

Furthermore, with the analytical data presented by the SKUs, companies can help develop a stronger relationship with customers and vendors. Further, inventory optimization using AI to identify SKUs and analyze their information enables to determine products that should be kept on the shelf and

which products to discontinue. As such, performing these processes effectively has a more profound impact on the company's profitability. Thus, AI-optimized SKUs help makes smarter business decisions and maintain efficient inventory management workflows.

While AI is undoubtedly accurate in retail demand forecasting using optimized SKUs, another aspect of improving the experience while meeting demands is to pave the way for identifiable and visible placements of the most in-demand products in the stores.

The acquired data from SKUs and other retail inventory lists allows for identifying hotspot areas in the stores for the appropriate placement of products.

Many retailers have adopted this technique as AI enables them to identify the hotspots in the stores using video interpretations and to perform

market basket analysis to determine which SKUs sell well together as combos and hence to be placed in the same spot in the store. Consequently, customers have easily identifiable racks comprising the required products while generating a sale for additional items included as combos leading to increased sales.

Rajasekaran, "SKU Optimization."

Use Case

Often top brands have multiple retail stores across countries with variable locations. In such cases, keeping track of a vast amount of sales reports while understanding the demand and supply leads to a significant delay in stocks.

A store with ready inventory in a particular city often differs from a store in another town. Most of it is due to a lack of demand forecasting, and as such, the brands lose significant profits. This situation is idle for an intelligent solution to help speed up the workflow and provide accurate forecasts to help optimize their demand-based inventories.

Our Solution

Indium Software presents an intelligent demand pipeline forecasting and fulfillment solution. With this AI-powered pipeline, companies can match their demand forecasts with the supply chain to achieve a unified view. This is achieved by analyzing the stores' SKU-wise monthly sales and inventory level data to achieve an accurate outcome.

In addition, the predictive results help reduce overage and underage costs with precise SKU level demand forecasts to help elevate the stores' performance during peak demand scenarios.

While it certainly helps the retailers, the customer experience improves due to cutting down the waiting period and providing demand-ready products at their disposal.

This generates a more loyal customer base with a high rate of returning customers, leading to increased sales and profitability.

AI for A Comprehensive Omnichannel Experience

In today's retail market, the retailers have an omnichannel strategy that converges with the adoption of technological advances. But very few have managed to master the omnichannel experience, and a low percentage of consumers consider it to be a seamless experience.

However, a fascinating aspect of retail is that customers are the primary channels, and the better the retailers understand the customer journey, the better the position in the market.

To gain the most significant leverage, companies require accurate analysis of the customer journeys to assess their expectations and various competitions in the market.

Thus investing in the right technology is essential, and AI in this context remains one of the top contributors to creating a seamless omnichannel experience.

A recent study reveals that over 75% of the customers prefer multiple channels to find the proper discount and perform price comparisons while also using an in-store kiosk to browse the available products.

It has also been identified that globally customers want to shop through their preferred channel, and failure to find that leads them to find another retailer. As a result, retailers must opt for a customer-centric approach to help customers through their journeys at every touchpoint.

Omnichannel enables customers to purchase on the go to create an immersive shopping experience. This means the provision of different integrated channels to offer the relevant services, including email marketing, social media, messenger applications, and websites.

Now when we discuss omnichannel from a retailer's perspective, it requires understanding the consumer behavior and their preferences which is realized today with the help of AI to identify various information about the consumer and use the insights to personalize their customer journeys.

But it does not end there, as retailers need to continuously evolve and drive sales by providing timely messages to the targeted customer groups about various discounts, referral programs, and loyalty and reward programs.

These targeted ads ensure that customers are driven to the next stage of the sale funnel by providing offers for products that they have been searching for.

At the same time, retailers seek insights into consumer behavior and information on the retail supply chain for demand forecasting, where AI drives data-driven decisions in real-time and forecasts the subsequent best offers for the customer segment of interest.

This allows for deeper customer segmentation using analytical data on various segments and retention rates and creating personalized loyalty programs to generate revenue.

As a result, customers are well-informed and have an improved experience with multiple offer profiles to select from and purchase using their preferred channels.
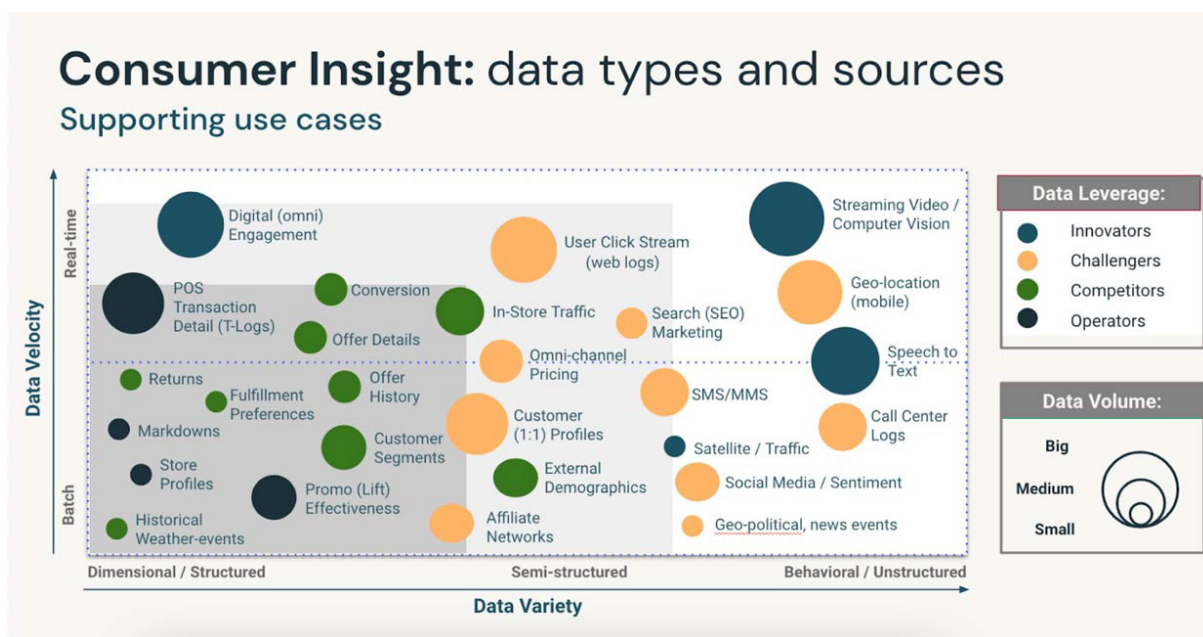
Consumer Insight: data types and sources
Supporting use cases

Use Case

When it is omnichannel in focus, it becomes essential for marketers to identify budget necessities based on a different region of interest. However, creating personalized loyalty programs and discount rates across multiple channels is challenging.

Similarly, analyzing different data from various customer segments and other additional factors makes achieving the information challenging in shorter cycles. Therefore, streamlining the information requires appropriate technological solutions to help reduce costs while also maintaining the business's profitability.

What Do We Provide?

Indium Software offers AI-enabled campaign optimization solutions and assists in creating marketing mix models. The AI solution helps perform descriptive analytics to calculate various channels' ROIs and estimate and optimize budgets.

The retailers are provided with a comprehensive analysis based on monthly sales, marketing, and spending data, including campaign-level ad spending. This allows retailers to find appropriate ROIs for marketing campaigns and optimize the duration, placements, and discounts to ensure shorter sales cycles and reduce expenditures.

Closing Thoughts

Convenience and personalized experiences have gradually become the core of the modern retail industry. The customers have been ever-evolving with changing expectations. As a result, retailers are at a crossroads because if they can't deliver according to expectations, customers will immediately switch to a competitor. This is where AI integrations have become immensely popular and successful. Whether to assist in strategies or to make real-time decisions, AI is practically everywhere in the retail industry.

Moreover, AI deployments can provide critical information about various customer-centric information that helps retailers to fulfill customer needs aligned with specific expectations from their brand of choice.

Thus retail solution built on AI and analytical insights have become

competitive with the possibility to tackle unforeseen challenges beforehand. It is thus becoming essential to continue integrating robust AI solutions to boost retailers' efforts to deliver enriched customer experience while meeting all the business objectives.

So, where do we go from here? Is AI the ultimate solution for healthcare?

The answer is that AI has become a proven solution in tackling many aspects of the retail industry, leading to increased effectiveness and enhancing customer experiences, meeting expectations, and generating increased revenues.

But the retail market is complex, and with it may come various challenges.

However, at the current pace of the AI industry, several efforts are being made to continue to make AI a reliable solution to some of its challenges while maintaining customer data integrity and privacy. Thus, the future of the retail industry coupled with AI holds promise in reshaping the entire industry.

How Can We Help?

At Indium, we offer AI solutions that allow brands to innovate confidently because your business is of utmost importance. We are a leading digital and data engineering solutions provider with deep AI and data analytics expertise.

Increasingly, our client base in the retail industry is engaging with us for continuous and robust services and support to build intelligent solutions that allow them the flexibility to provide quality products and services and redefine customer experience,

all while maintaining competitive costs and increased revenues. In addition, our customizable AI solutions have low code-app development to build intelligent solutions that can be offered at shorter turnaround times.

We value you, your business, and your time investments.