The Modern Retailer Imperative: Creating Hyper-personalized, Connected Customer Experiences

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Today's connected consumers have more choices, tools, and information than ever. They expect to find any product they want and buy it easily at a competitive price. But that's not all. Consumers seek highly-personalized, multidimensional shopping and consumption experiences. Disconnected transactions are *out*, connected experiences are *in*.

To meet rising customer expectations, businesses are looking to "hyper-personalize" experiences. Marketers may think they are personalizing or even hyper-personalizing customer engagement, but chances are they're just skimming the surface. Basic forms of personalization such as an email customized with a person's name are only somewhat impactful. In contrast, hyper-personalization requires deep intelligence about each customer and their connected journey so that marketers can deliver the right offer to each person at the right time and place along their connected physical/digital journey. This paper seeks to explain the technologies and solutions that must come together to deliver on the promise of hyper-personalization and shares a maturity curve for your hyper-personalization initiative.

Consider the hyper-personalized, connected shopping experience of a health-conscious grocery shopper.

Leaving work on a Friday, she receives a notification on her smartphone that her favorite brand of organic milk is back in stock at her local supermarket. On the way home she adds the milk to her virtual shopping cart using the store's mobile app. Upon entering the store, she receives notifications about products on sale that are mapped to her digital profile and shopping history.

After grabbing the milk, she types "curry" and the mobile app notifies her that it is in aisle 7. She scans the QR code on the container with her smartphone. The app lists the ingredients and indicates that they don't contain any known allergens associated with family members.

*Consumers aren't just seeking a better experience while shopping – they're shopping for **experiences**.*
Instead of buying products, they are seeking out broader concepts of value like nutrition (not just groceries), fitness (not just running shoes), wellness (not just health insurance), vacations (not just hotel rooms) and style (not just apparel).

On her way out of the store, as she pays for the items in her app cart, a customer service manager approaches and asks her by name if she would like a free membership to a healthy recipe sharing club that partners with one of her favorite brands to provide additional discounts. She readily agrees and is asked to complete a short survey on an in-store kiosk before exiting.

As this consumer experience demonstrates, hyper-personalization can make a greater impact when interactions with a brand feel logically connected. Instead of disjointed offers and opportunities, successful marketers who take charge of the customer journey are designing connected customer experiences.

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Further contributing to the shift to experiences is that comparison shopping for products and services is now quick and easy to do at scale, making product and price less effective strategies for differentiation. Experience has surpassed price and product as the primary driver of loyalty, attaining sustainable growth and differentiating a business.

Personalization vs. Hyper-personalization: What's the difference?

Like other industry buzzwords, not everyone agrees on the definition. Personalizing means *to make something personal*. Within a retail context, a simple online example is when you add an item to your shopping cart, such as a new TV, and then see a suggestion for "people who bought this item also bought…", The retailer knows nothing about you, except that you are considering a new TV.

Another example is when you find a flyer taped to your front door with an offer for 20% off replacement windows. In this case, the window salesperson drove by your house and noticed that you have older, single-pane windows that might be ready to be upgraded to more efficient, modern windows.

In both cases, the companies didn't know, or use, any additional information about you such as your unique preferences, buying or broader consumption patterns, shopping priorities or stage of the buying journey. Basic personalization can happen with as little as one data point but its impact is limited by the lack of

You might think that you're hyper-personalizing, but chances are you're only skimming surface. You need to augment your frontline systems and stakeholders with a new kind of intelligence – Connected Consumer Intelligence

context behind a customer situation. In many cases today, basic personalization fails to meet customer expectations and leads to waste with irrelevant offers, generic messaging, and disengaged customers.

Hyper-personalization takes personalization to a whole new level:

1. **Personalized to the individual:** The retailer must interact with an audience of one, with a rich understanding of the consumer, including information such as: profile (age, gender, location, marital status, habits, hobbies, financial situation, etc.), preferences and affinities (for brands, styles, product categories, services, etc.), sentiments (feelings about past experiences, brands, products, and services), shopping history, rewards membership status, etc. Furthermore, the interactions should be delivered via the right combination of a customer's preferred channels (whether that is by phone, email, text, mail, website, mobile app or in-person).
2. **Contextual to the situation:** The retailer needs to tailor offers and actions using a contextual understanding of what the consumer is trying to do (their overall goal) and where they currently are on their physical/digital journey. The retailer should understand whether the consumer is still researching products or is ready to buy. It should understand the brand interactions to date, and the next actions that are most likely to favorably influence shopper experience and behavior. A hyper-personalized experience usually includes integrated digital/physical interactions.
3. **Timely:** In order to catch the customer in the act of deciding, retailers need the capability to surface timely recommendations for interactions and offers and deliver them when they matter most.

However, *hyper-personalization* doesn't necessarily require that we provide customers with real-time offers (triggered by data in milliseconds to as long as five minutes). In retail marketing, the most important part of timing is that the response to an input happens at the *most opportune* time given the consumer's situation. That could be in seconds, minutes, days or even weeks.

Key differences of personalization and hyper-personalization from a retailer perspective:

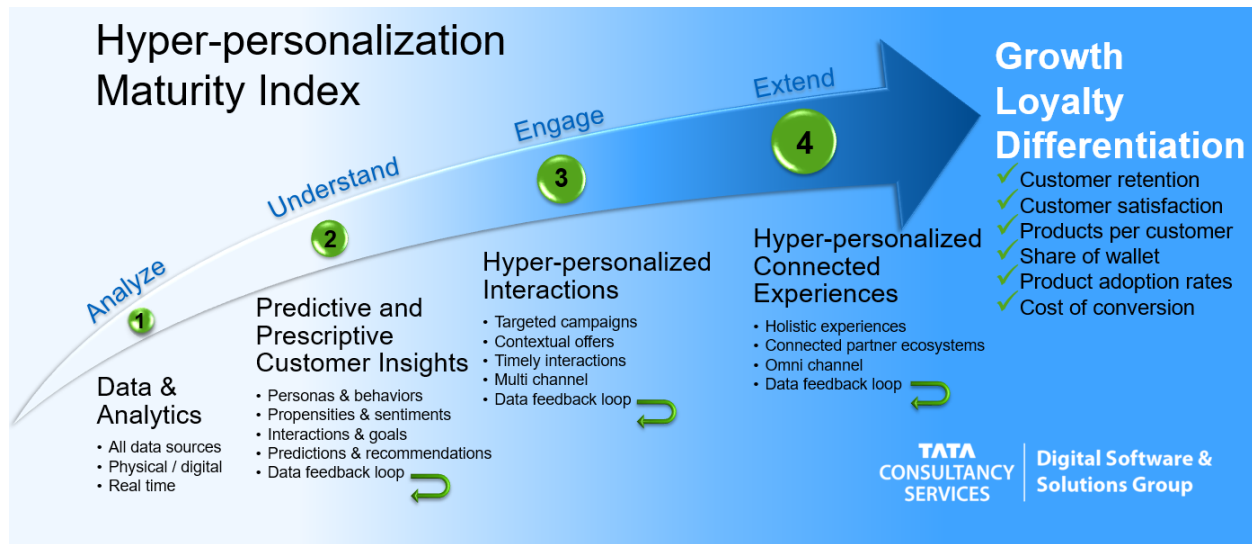| Retailer Perspective	Personalization	Hyper-personalization
Data Requirements	Low	High
Analytic Complexity	Low	High
Need for Real-time Insights	Low	High
Situational Contextualization	Low	High
Multi-channel Engagement	Low	High
Experiential Impact to Customer	Low	High

Key differences of personalization and hyper-personalization from a consumer perspective:

Consumer Perspective	Personalization	Hyper-personalization
Relevance of Offers	Low to moderate	High
Connected Experience	Low	High
Continuity of Brand Interactions	Low to moderate	High
Customer Satisfaction	Low	High
Brand Loyalty	Low	High
Respect for Privacy and Communications Preferences	Low	High

What about data privacy and security? Although not the focus of this paper, data privacy and security must be a consideration for anyone thinking about hyper-personalization, recent stories about hyper-personalization run amok are leaving some consumers feeling "creeped out." They feel that retailers are violating their privacy by seemingly knowing too much about them. Consumer confidence in a retailers' ability to secure their data and only use it in their best interest is called *digital trust*. Breaches of this trust have caused a backlash, with some consumers trying to become more anonymous by opting out of future promotional offers, disabling location-based services on phones, blocking cookies, unplugging smart speakers or paying only with cash. They have also prompted new data privacy regulations such as GDPR in Europe and the California Consumer Privacy Act in the U.S., along with terms such as "the right to be forgotten," where consumers can mandate that their information be deleted from vendor databases. Earning and maintaining digital trust is a top priority for retailers that want to collect consumer data for hyper-personalization. In the context of this paper there are two key implications to the privacy imperative above: an opportunity to increase trust and relevance to your customer via hyper-personalization and implementing a business grade solution for customer analytics that helps comply with data privacy best practices and requirements.

Hyper-personalization Maturity Index

The guide below outlines the key steps required to drive growth, loyalty and differentiation with hyper-personalization.

Phase 1: Data and Analytics: It All Starts with Data

At the beginning of the Hyper-personalization Maturity Index is 'Data and Analytics.' Surprisingly, many retailers feel that they are stuck at the first step with too little useful data, but this is usually not the case. They know that data and analytics are required to compete in todays connected retail economy, but they don't think that they have achieved the data maturity required to enable the predictive and prescriptive insights needed to drive hyper-personalization. Yet, lack of good data is rarely the obstacle.

Most retailers already have some of the building blocks they need for customer analytics, but few have cross-domain analytics that can incorporate physical and digital brand interactions, which is imperative for any brick and mortar retailer that seeks to perform hyper-personalization. Retailers can accelerate through Phase 1 by seeking an analytics solution specifically designed for retail customer data that includes retail customer analytics use cases.

Phase 2: Predictive and Prescriptive Insights: The Elusive Link between Data and Action

Although many retailers have data, marketing automation, and often several point analytic tools, they often can't connect the dots to provide consistent, data-driven recommendations to their marketing automation and other front-line systems. Without this, true hyper-personalization is not attainable.

Hyper-personalization focuses on customer engagement and the delivery of recommendations to front-line systems and stakeholders. However today, many retailers still don't have the ability to generate predictive and prescriptive insights that tell the front-line systems and stakeholders about how and when to engage the customer.

Phase 2 is the unsung hero in the Hyper-personalization Maturity Index, solving the hardest analytics challenges for retailers. The problem is not that retailers lack analytics tools or don't have data. According to eMarketer, Inc.[i], in a 2018 survey by customer experience agency Verndale[ii], 84% of respondents agreed that the technology's potential has not been fully realized just yet, 91% acknowledged that their company needs to improve upon its personalization capabilities and more

than half said that their organization "often fails to deliver the personalization...customers crave." The respondents agreed that they need more real time data and domain-specific insights; it's not due to a lack of marketing automation.

Phase 2 requires domain expertise about retail KPIs and marketing initiatives. It requires data scientists who can look across all data sources to find metrics and variables that might be better predictors of performance. It also depends on application developers who can build out analytics use cases that deliver actionable insights able to be consumed by third party systems. Such systems could include analytics-driven customer personas (which serve as a foundation on which to develop and deliver personalized offers), customer scores (customer satisfaction scores, customer lifetime value, credit scores), segmentation tools, product affinities, shopping basket analysis, customer journey monitoring, next-best-offers and next-best actions. Finally, it requires integration to incorporate the resulting recommendations into the marketing automation, POS and other front-line systems.

Phase 3: Hyper-personalized Interactions: Delivering Prescriptive Recommendations in the Moment

To hyper-personalize interactions, retailers provide fine-tuned insights and recommendations to their front-line systems, apps, websites and stakeholders, across all channels that customers use. Many of these are interactive systems which communicate information to the customer, and also collect and (sometimes) interpret and act on information from the customer. These include: marketing automation systems, store websites, member loyalty sites, partner sites, social media, email, text, mobile apps, call centers, widgets such as chatbots, kiosks, point of sale terminals, in-store tablets and, of course, store employees.

Each of these systems represents an opportunity for a retailer to interact, upsell, cross sell and learn. Yet in order to use them to interact harmoniously to the customer's delight, a retailer must provide each system/app/person with prescriptive guidance at the right time, for the right customer. Unfortunately, this is where retailers may get stuck. Something or someone needs to tell the marketing automation system or app what to do, and when. Yet currently most personalization efforts rely on siloed data sets, and unfounded assumptions.

For most retailers, there are too many sources of data and points of interaction to fully understand, manage and optimize the right customer offers, actions and reactions in a timely fashion continuously for each individual customer. Although many organizations have siloed solutions to personalize particular activities, the opportunity and imperative is to treat the entire customer journey as a holistic, integrated, and ongoing experience.

Phase 4: Hyper-personalized Connected Experiences: The Sum is Greater than the Parts

Delivering hyper-personalized connected experiences results in increased growth, loyalty and differentiation. We see many examples of brand partnerships where loosely related businesses team up to offer holistic experiences. These connected partner ecosystems not only enable retailers to team up to deliver new, experience-based value. They also create opportunities to collect valuable customer data which feed the analytics – driving insights and recommendations that further hyper-personalize customer experiences.

Delivering these experiences requires predictive and prescriptive data insights that augment the intelligence of the frontline systems and stakeholders that interact with the customers. These insights must be developed around a holistic understanding of the customer, reflecting their goals, behavioral patterns, sentiments, propensities, and buying history – across all digital and physical channels. This is *Connected Consumer Intelligence*, and without it, hyper-personalization and connected customer experiences are not possible.

The Outcome: Growth, Loyalty and Differentiation

Hyper-personalized connected experiences are becoming the leading priority to attract, keep, and expand a retail customer base. But customer experience is *not "the new black."* That would be selling it short. The practice of hyper-personalization is no *short-term fad* like the hula hoop – it's becoming a strategic imperative for every long-term retail growth plan. Laggards risk becoming casualties of the *Retail Apocalypse*, while the leaders take market share at alarming rates.

Importantly, retail leaders are successfully leveraging these capabilities to understand customer goals and provide contextual offers and broader value, which often requires collaborating with 3rd party partners to offer more differentiated holistic experiences, rather than just products (selling fitness rather than running shoes, wellness instead of health insurance, or home modernization instead of appliances). So let's examine how retailers can fast-track their path along the Hyper-personalization Maturity Index to drive long-term growth, customer loyalty and differentiation.

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Implementation Approaches and Considerations

Vendors that sell CRM tools, customer data platforms, analytics platforms, marketing automation tools, or retail point solutions have been quick to jump on the "we have a customer experience (CX) solution" bandwagon. But not everything is as it seems. Each retailer has unique needs and constraints. Because a customer experience solution is inherently complex, retailers face a myriad of considerations that affect TCO, time-to-value, and overall benefits. These include:

- Future-proofness
- Comprehensiveness
- Vertical specificity
- Architectural flexibility
- Services requirements
- Maintenance
- Required skill sets
- Scalability
- Security and privacy

No Matter the Solution Approach, Future-Proof Now

Businesses must consider that data analytics is a long-term initiative that becomes integral to core business models. Starting with a future-proof foundation is critical. Otherwise many organizations will need to re-tool before fully realizing the potential of their data. This requires a foundation that:

- handles vast amounts of data with a highly scalable architecture,
- ingests and processes data from a wide variety of sources, including customer interaction from physical stores, websites, apps, IoT, and streaming/real-time sources,
- includes advanced analytics and capabilities such as AI and machine learning, with predictive and prescriptive insights, and the required management and security to operationalize use cases,
- connects easily to 3rd party systems and partners to enable curated experiences
- is cognizant and capable of helping your organization comply with privacy requirements

As you consider various approaches for your hyper-personalization solution, which range from proprietary vendor solutions, to open source reference architectures, to home-grown build-your-own, or hybrid solutions, keep these considerations and requirements in mind:

Approach #1: The Platform Vendors

The infrastructure giants, major ISVs, and major consultancies usually have a "yes we can" answer and it's often true. They may have access to the hardware, software, expertise and skill sets to deliver anything, for a price. However, to deliver a solution which is tuned for retail customer analytics, these vendors may have to dig deep into their generic parts bins to create *your* solution, which often takes many months, or more. It could require a significant services engagement to build and integrate the data models and analytics use cases that are specific to retail, and to tie together disparate solutions into a cohesive whole. Other drawbacks can include vendor lock in and repeated upsells for additional modules, as well as required maintenance contracts.

Consideration checklist:

Against the considerations above, while the major platform vendors offer solutions which can appear comprehensive, they may require 'heavy' services to integrate disparate products – negatively impacting time-to-value and TCO. These integrations can even trigger the need for additional services in the future to maintain and update them. Watch out also for vertical specificity; be sure to look past the marketing and industry "skin" that may have been added to a horizontal platform and ensure that substantive industry-specific use cases are baked in – otherwise services time and costs (yours or theirs) will come into play. Finally, watch out for dominantly proprietary architectures with limited architectural flexibility, which can compromise your ability to leverage your existing IT investments.

Approach #2: The Niche Vendor

On the other side of the spectrum are the "We do one thing really well" vendors. Their proprietary point solutions tend to be well polished but can struggle to integrate with other tools and systems. They may help build personas, or provide product recommendations or visualize customer journeys, but they can fall short of expectations when they need to become a part of a comprehensive hyper-personalization solution straddling physical and

digital touchpoints. Simply put, point solutions often fail to capture the entirety of customers' experiences and profiles, hampering hyper-personalization from the get-go.

Consideration checklist:

Against the considerations above, niche vendors can fall short. Their specialization means that they may be able to deliver certain outcomes quickly, but they can fall short on comprehensiveness. Services costs (and time) may rise as you incorporate additional point solutions and try to weave them together into a holistic solution. Maintaining disparate solutions as one can be costly and complex, especially when needing to upgrade multiple solutions over time, or when finger pointing starts between vendors that each are responsibly for just a portion of your total solution. This approach can also impact skills requirements as you seek to use and maintain multiple proprietary solutions. And while point solutions may typically score high on vertical specificity, be cognizant that many best-of-breed *analytics* solutions were not originally designed as vertical solutions with known business outcomes. Regarding vertical specificity, there are many niche general purpose vendors out there; these may multiply your services costs and time. Finally, your requirements for security and privacy, scalability, and future-proofness may require extra scrutiny when considering these types of vendors.

Approach #3: Homegrown

Some larger retailers have slowly, over time, developed their own tools and widgets to "get by." However, as the volume, variety and velocity of their data (big data) continue to increase, the same tools can become less effective, and the cost of maintenance and support could rise as customer expectations and analytics needs evolve. Coupling these challenges with the fact that consumer expectations for personalized experiences are rising, the homegrown approach may deliver diminishing returns. In addition, only the largest retailers tend to have the in-house skills and resources to build and deploy customer analytics use cases and deliver hyper-personalized interactions.

Consideration checklist:

Be careful that your homegrown solution is future proof and doesn't become a one-time project that quickly becomes outdated, inadequate, and incompatible with other systems. And try to avoid reinventing the wheel (again and again) when there are proven solutions that may lead to value faster and offer a pre-integrated approach. Maintenance requirements are often overlooked with homegrown solutions. You must factor in the skill sets and time costs of keeping your system up-to-date with the quickly evolving needs of retail. Furthermore, maintenance can become a catastrophic problem when key skill sets and tribal knowledge leave the organization. Finally, homegrown data platforms are at high risk of vulnerability. Ensure that your data, and your customers' data are protected from current and future threats. Because of the rising concern over data privacy, make sure to build (or buy) solutions that enable you to customize data privacy policies, add control points, create alerts and build reports. A word to the wise: build where you can, but buy when you need to, and know the difference!

Approach #4: Hybrid

As brick and mortar retailers consider solutions to enable hyper-personalization, Connected Consumer Intelligence needs to be on the top of their "must have" list. And to accelerate the time to value while setting the stage for the future, retailers should seek a robust analytics platform (that meets the requirements listed above), which includes pre-built customer analytics use cases that are designed for retail. With this in place, retailers can quickly, easily, and affordably deliver hyper-personalized connected experiences across all physical and digital touchpoints – incorporating partner offers that deliver differentiated holistic value. Retailers should seek flexible solutions that leverage existing IT investment and have subscription-based pricing to lower the barrier to entry. And importantly, seek a vendor with integrity and proven industry experience.

Consideration checklist:

Proven vendors, with enterprise customers, future-proof their solutions by maintaining detailed product roadmaps that help them continuously adhere to the five guidelines mentioned above (section: No Matter the Solution Approach, Future-Proof Now). These roadmaps incorporate current customer demands, bug fixes, value-added features and accommodations for developing risks/threats. Also, these vendors may offer more robust enterprise-grade data foundations that help ensure that big data doesn't become a big problem. To help ensure comprehensiveness, the hybrid "platform plus pre-built use case" approach solves the needs of the business while fast-tracking time-to-value. But again, beware of the thin industry "skin" that some vendors may add to a horizontal platform, but which may add little business value. Ensure that there are substantive industry use cases baked into the product. A well-designed hybrid approach has architectural flexibility, which rewards the retailer by avoiding vendor lock-in and enables them to leverage existing IT investments – reducing costs and simplifying implementation. Seek a low-code solution with familiar open-source components to minimize the need for specialized skill sets, with included APIs and data connectors. The hybrid approach can avoid lengthy and costly services engagements and offers out-of-the-box readiness. And although the cost of maintenance must be factored in, consider that it also relieves the retailer of the significant burden on IT resources. Because this approach tends to only be available through established enterprise vendors, the solutions are more likely to incorporate robust scalability, security and privacy features into their offerings.

Summary

Disruption is hitting retail from all sides. Today's connected, omni-channel shoppers have instant online access to a global marketplace. They increasingly expect highly-personalized experiences at every step of the customer journey.

Newcomers such as born-on-the-Web retailers are undercutting prices and providing fast, free shipping, price matching, online shopping assistants and free returns. Meanwhile, traditional retailers are facing reduced customer loyalty and lower margins.

To stay competitive and drive growth, loyalty and differentiation, brick and mortar retailers – and even newcomer digital wannabees - need to hyper-personalize customer engagement and deliver superior, connected customer experiences.

Retailers must use caution to avoid long timelines, disparate point solutions and expensive rip-and replace mega-platforms when seeking solutions to enable hyper-personalization. An outcome-based approach that combines a data and analytics platform with pre-built use case solutions tuned for retailers provides the most effective and fastest results.

TCS Digital Software & Solutions Group Solution for Hyper-personalization in Retail

TCS Customer Intelligence & Insights (CI&I) for Retail software delivers pre-built customer analytics use cases that accelerate retailers' ability to deliver hyper-personalized experiences and timely engagement campaigns across physical and digital channels while minimizing total cost of ownership. Ingesting customer data from all available sources (internal, external, IoT, real time, etc.), such as demographics, transactions, and interactions, the software's AI-driven analytics creates rich shopper personas, discovers and analyze shopping journeys, and recommends timely next best actions for customer engagement.

The low-code CI&I Retail Platform with integrated Hadoop data lake incorporates open-source components, machine learning, real time and IoT capability, an adaptive analytics engine and built-in privacy and security features – to deliver a fully future-proofed solution for retail customer analytics. APIs simplify integration with 3rd party and frontline customer-facing systems, apps, websites, marketing automation, etc. And importantly, users can incorporate their own analytic models to build and operationalize additional use cases.

About TCS Digital Software & Solutions Group
TCS Digital Software & Solutions Group delivers on the promise of Connected Consumer Intelligence™. Our experience working with the world's most successful enterprises drives the development of integrated software that helps them meet the higher expectations of today's wired consumers and citizens. With TCS DS&S Group software, organizations can design experiences that logically connect every touch point of the consumer's digital and physical journey.

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