Hyper-personalisation: Inducing behaviours through data — how machine learning and automation can help customers make valuable and informed decisions

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Abstract While personalisation is not an entirely new topic, there is currently massive hype around it. This is because service providers realise that they need to be more cost-effective in engaging with their customers, and also because customers now demand to be treated individually and in a personalised way. Several market trends have been adopted in recent years, bringing service providers to the level where they currently stand. The previous trends were both beneficial and applicable in a particular context; however, today, new approaches are required for service providers to progress, improve and move to the next level. Achieving a hyper degree of personalisation can be challenging — it requires investment, time and the right strategy. Furthermore, it is
not a straightforward path, and it is essential to understand the business and technical challenges that service providers must address and overcome to succeed — challenges for which hyper-personalisation is the answer. This paper explores the concept of hyper-personalisation and its potential to induce customer behaviour through data-driven insights. It highlights the importance of knowing customers and leveraging their preferences and habits to deliver valuable and informed decisions. The financial services industry has the significant advantage of having access to a huge installed customer base and its data. In general, it is not a problem of lack of data that these industries face but rather one of how to derive actionable insights from it. The hyper-personalisation approach is bridging data with cognitive and digital capabilities to deliver unique, in-context and highly relevant experiences. With hyper-personalisation, service providers can scale up the personalisation leveraged by artificial intelligence (AI) and machine learning (ML) to deliver experiences and recommendations in real time to individuals, creating a true one-to-one personalisation.

KEYWORDS: hyper-personalisation, data, advanced analytics, banking

THE RELEVANCE OF KNOWING YOUR CUSTOMERS

Have you ever wondered how the friendly owner of the local supermarket in your old neighbourhood knew everyone’s tastes, preferences and even your family’s favourite coffee brand?

The truth is that any relevant information about customers was safely stored in the owner’s brain, easily accessible to provide a personalised service and ensure the type of experience that makes customers come back repeatedly. They did not need analytics or sophisticated decision-making algorithms. Every transaction brought insights about their customers, building a reliable and rich contextual knowledge base.

Current service providers are in a similar position to the friendly owner of the local supermarket. They, too, can access a wealth of information about their customers’ behaviours, preferences and movements but often fail to take advantage of this strategic asset to extract business value at scale.

Personalisation promises to tackle this challenge and helps place service providers in a unique position to engage customers and tap into new revenue streams. Many questions, however, remain: how can service providers leverage this rich, complex and often unknown data? How can it be used to gain valuable, unique insights about the business and customer experience? And how can we use these insights to give each customer an experience based on their preferences and habits?

PERSONALISATION — WHY DOES IT MATTER?

While personalisation is not an entirely new topic, there is currently massive hype around it. This is because service providers have realised that they need to be more cost-effective in engaging with their customers and because customers now demand to be treated individually and in a personalised way.

McKinsey & Company\(^1\) states that 71 per cent of consumers expect personalisation, while 76 per cent of those same consumers get frustrated if they cannot find personalisation in the brands they interact with, leading to churn.

The study also claims that 75 per cent of consumers switched to a different brand because they were not satisfied with the experience they were getting. This is even
more crucial in the aggressive marketplace that brands face today. The study concludes that personalisation pays off, as brands that capture more value from personalisation will grow faster and can earn 40 per cent more revenue from personalised marketing actions or tactics.

In short, personalisation is more important than ever. It is crucial not only to gain customers but also to serve and maintain them and to meet their high expectations.

When looking at the different approaches that service providers use to engage with their customers, it is possible to identify three main eras of personalisation:

- **Mass personalisation**: Identify mass segments of consumers with distinct preferences or needs to deliver a one-to-many personalisation;
- **Segmented personalisation**: Deliver one-to-few tailored personalisation for a group of consumers with common characteristics;
- **Hyper-personalisation**: Recognise consumers as separate individuals and create unique, relevant experiences for a one-to-one personalisation.

Although some companies are already delivering hyper-personalisation use cases to their customers, most businesses are still experiencing segmented personalisation. Nevertheless, regardless of the adopted approach, it is easy to understand that, as service providers become more mature in personalisation, it is possible to improve the response rates, increase the conversion rates and lift the customer lifetime value (Figure 1).

The personalisation maturity curve represents a personalisation strategy’s different phases, tactics and expected returns. It can be observed that as service providers advance in their personalisation maturity, they derive more significant benefits. But one question remains: are they taking action to harvest all the available benefits? Yes, but not enough.

Several market trends have been adopted in recent years, bringing service providers to the level at which they currently stand:

- Customers are segmented into groups by their similarities and offered similar value propositions and experiences. What is suitable for the group, however, might not be good for the individual.
- Customers’ deflection to non-assisted channels brings efficiency and allows them to reduce operational costs. Nonetheless, all the interactions are detached, impersonal and less human.
Beyond that, service providers are being pushed to continuously increase their annual revenue while facing several business challenges in a saturated market.

High revenues and safe margins are strongly requested, creating high pressure to be more cost-effective in marketing investments by reaching customers more efficiently. Consequently, huge investments in mass marketing are made, resulting in shockingly low returns. Service providers must become more effective and sharper in these engagements.

Additionally, service providers face the aggressive competition of the neo banks and FinTechs. Both have been disrupting the traditional banking landscape by offering innovative and customer-centric solutions setting up the customer expectations in the market. Since they are not encumbered by the legacy systems and bureaucratic processes that traditional banks often have, this gives them the agility and the ability to quickly adapt to new market trends that service providers must urgently counteract.

The financial services industry stands out for having a significant advantage — having access to a huge installed customer base and its data. In general, it is not a problem of lack of data that these industries face but rather one of how to derive actionable insights from it.

To overcome these problems, service providers must address several technical challenges that will allow them to unleash the power of the available data.

Business challenges
Service providers are under pressure to deliver the next best experience to their customers. Products, services and prices between different providers are becoming less and less distinctive and looking very similar to each other. When everything else is equivalent to the competition, the only way to differentiate is through the customer experience.

Lack of differentiation leads to customers having more selection options, which, combined with today’s aggressive market, creates enormous pressure on service providers to retain those customers. It is paramount to satisfy and serve customers better, gaining their loyalty and trust.

Technical challenges
Service providers are struggling to create a consolidated customer profile from all the available disparate sources of information. They must be able to feed myriad data sources, merging both online and offline data to ensure a real-time comprehensive view of customer knowledge while reducing the dependency on third-party data.
The capacity to correlate behaviours from the digital channels with customer intent is crucial for service providers. If they can anticipate and predict customers’ intentions, they can proactively engage with them to meet their expectations and satisfy them with a differentiated service.

With customer intent and all the available data, service providers must be able to create relevant and actionable insights to deliver a truly personalised service for each customer. In addition, all this needs to happen immediately owing to rapidly changing information — what is valid now might not be accurate in a couple of days.

It is also crucial to understand which is the best channel for engagement for each scenario. This means identifying the channel that maximises the response propensity and acceptance in a more cost-effective and frictionless way.

Finally, service providers need to be able to continuously measure performance to understand whether they are succeeding in their strategy and introduce the necessary optimisations.

**MAIN PILLARS TOWARDS HYPER-PERSONALISATION**

There are four main principles that represent the crucial pillars of the solution to deliver a truly hyper-personalised approach (Figure 2):

1. **First-party customer data:** Although third-party data usage is heavily adopted across the industry, alternatives must be found

![First-party Customer Data
Online Merges Offline](image)

![Micro moments
Nonlinear Interactions](image)

![One-to-one Experiences
The Care of One](image)

![Measurement
Continuous Improvement](image)

*Figure 2  Solution principles*
before third-party cookies cease to exist. Additionally, this data is limited and does not allow service providers to create a true 360° customer view.

The good news is that, even though it is scattered through multiple sources, service providers already have this raw data, only lacking an aggregated view and real-time access to it. Therefore, a consolidated first-party data view of the customer profile, merging multiple data sources, including online and offline data, is imperative for service providers to fulfil their strategy. Furthermore, this approach directly contributes to ending the dependency on third-party data.

2. Micro moments: The way the customer interacts with service providers is changing. It is no longer through sequential journeys but through nonlinear interactions — the micro moments — which must be orchestrated and correlated.

The customer intent differs depending on the micro moment; in other words, there is no ‘one size fits all’ solution. This needs to be considered if a genuinely personalised solution is to be delivered.

3. One-to-one experiences: Scaling from a traditional segmented and rules-based approach to a hyper-personalised one is obligatory and leads to engaging in one-to-one experiences. Artificial intelligence and machine learning (AI & ML) models can leverage this, delivering real-time personalised experiences and recommendations tailored to individuals based on the triggered relevant, actionable insights. These insights also induce customer behaviour, leading them to take valuable, informed decisions and actions.

From a banking industry perspective, personalised experiences are also about creating a strategic advantage towards differentiation from competition. As part of this strategy, hyper-personalisation takes the customer’s experience to the highest levels; it becomes a very useful tool to increase customer loyalty and minimise the lack of feel good of taking a financial decision.

Crossing the fine line between delivering an impressive experience and being too intrusive, however, is easy, achieving the opposite of the desired effect. Therefore, it is necessary to select the best channel for engagement and take advantage of the moments when the customer is open and willing to receive personalised information to engage more efficiently, maximising more natural interactions.

4. Measurement: Organisations’ chances of survival and continuity are also directly associated with their ability to adapt to their customers and the market’s constant changes and demands. Therefore, having the capability to measure the target key performance indicators (KPIs) is paramount for service providers.

The most effective way to understand whether the defined strategy is progressing is to continuously measure its performance, that is, collect KPIs, analyse and improve accordingly, closing the feedback loop.

As part of this approach, it is crucial to use this information to continuously refresh and train the AI & ML models to adapt to the ever-changing reality and context that service providers are facing.

With the disparate number of channels (eg web, social media, call centre, apps) and devices (eg mobile phones, tablets, personal computers, wearables) currently available to customers, service providers that support a truly omnichannel engagement are able to differentiate from the competition.

To address this approach, there are three crucial aspects to consider, enabled by these important pillars:
1. A comprehensive customer profile to consolidate customers’ behaviours and interactions from all the available sources;
2. A centralised recommendation engine supporting all the different channels;
3. An optimised customer engagement by identifying the best channel, the best time and the best scoring action to engage with the customer.

THE HYPER-PERSONALISATION APPROACH

The hyper-personalisation approach must bridge digital with data and cognitive capabilities to deliver unique, in-context and highly relevant experiences (Figure 3).

This approach requires three main platforms as the foundations of the solution:

1. Customer data platform as the backbone of the customer profile; customer-related data collect different and relevant real-world events.
2. Data insights platform represents the decision engines that run on top of the customer data to provide relevant and actionable insights, with two primary responsibilities — campaign management and AI & ML.
3. Digital experience platform, used to activate and deliver the experience in the digital channels as per the insights from the data insights platform.

Most of the industry is still focused on segmented personalisation, delivering experiences and recommendations to grouped users considering predefined rules. This can be seen as the starting point or...
the primary solution, but it depends on the maturity level of each service provider. Usually, it is the domain in which most service providers are working.

With hyper-personalisation, service providers can scale up the personalisation leveraged by AI & ML to deliver experiences and recommendations in real time to individuals, creating a one-to-one personalisation.

To be able to deliver a truly hyper-personalised experience, these one-to-one engagements must be tailored to specific micro moments.

One of the most commonly used frameworks is from Google,\(^3\) which identifies three main micro moments:

1. *‘I want to know’* — related to the market; when the customer wants to find something.
2. *‘I want to buy’* — related to the selling moment; when the customer wants to buy something.
3. *‘I want to do’* — related to engaging or with the care moment; when the customer needs to do something or solve a specific issue.

For each of these specific micro moments, service providers can instantiate a hyper-personalisation solution that addresses the particularities of each moment with greater focus on the specific customer intent (Figure 4):

- Smart content experiences
- One-to-one recommendations
- Cognitive care

**SMART CONTENT EXPERIENCES**

Leveraged by the digital experience platform to deliver tailored and behaviour-driven personalisation leveraged on continuous data collection to present unique content according to customer intent in real time (Figure 5).
ONE-TO-ONE RECOMMENDATIONS
Deliver contextualised one-to-one products and offer recommendations based on customers’ real-time interaction history and preferences, leveraged by campaign management and/or AI & ML models (Figure 6).

COGNITIVE CARE
Leveraged by AI & ML to predict customers’ intentions and recommend the best experience to engage with them proactively (Figure 7).

Benefits
One of the main benefits of using highly personalised experiences is that service providers can maximise the value of each customer throughout their life cycle (Figure 8).

This improvement is not achieved by engaging with customers only at the beginning and end of their life cycle, as does the classic customer lifetime value (CVM) approach, but constantly throughout it all. Following this strategy maximises the customer lifetime value and optimises internal costs, especially acquisition and retention costs (Figure 9).

The preceding graphic compares CVM strategies with and without hyper-personalisation investment costs.

The first line represents the typical investment curve: it starts with a significant initial investment for customer acquisition, then reduces dramatically during the development period when service providers typically do not follow customers closely, and increases shortly for contract renewals, during the retention period, with all the renewal campaigns at the end.

The second line represents the investment curve using hyper-personalisation, during which service providers continuously engage with customers throughout their entire life cycle. Overall, two direct benefits can be associated with this approach: maximising customer lifetime value and optimising investment throughout the customer life cycle.
According to McKinsey & Company, hyper-personalisation instantiation benefits can result in the following (Figure 10).

These numbers result from the following effects of using hyper-personalisation:

- Engaging directly with customers and avoiding mass campaigns can reduce up to 50 per cent of acquisition costs. This, paired with direct savings from the reduction in marketing investments, enables 10–30 per cent better cost-effectiveness.

- The buying process becomes more natural when directly targeting customers’ emotions and addressing their preferences, interests and tastes. This approach allows up to 2.5× better conversion rates. Besides this, continuous and closed engagement during the care period, even if representing a slight increase in investment, delivering contextualised and relevant up-sell and cross-sell recommendations, contributes 5–15 per cent uplift revenues.

- Proactively engaging with customers during the care period enables predicting...
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Figure 7 Cognitive care use case

Key: AI: artificial intelligence; NLP: natural language processing

Figure 8 Improving customer lifetime value through hyper-personalisation
and preventing a bill shock or possible issues in customers’ equipment. For example, this type of engagement allows up to 30 per cent improvement in customer retention.

- The previous points can increase the net promoter score by up to 20 per cent owing to an overall customer best experience.

References


