Hyper-Personalisation: How The World's Most Innovative Companies Are Winning With Data

2020 saw a pandemic send everyone online, forcing a new breed of savvy Internet users previously accustomed to - and preferring - in-person experiences. Consumers today have instant access to endless information and are inundated with choice, so how do companies stand out?

Spearheaded by innovative brands utilising improved data capture and accurate predictive analysis, companies can deliver exceptional CX driven by hyper-personalisation. However, customer expectations have dramatically changed. Once limited to Millennials and the occasional Baby Boomer, today, multiple generations are demanding exceptional, highly personalised interactions at every point of the customer journey.

Companies must offer something extra; they must speak directly to their customers with empathy whilst carefully anticipating every want, need and desire - even before the customer knows it themself. By collecting real-time data and gaining insights through behavioural science, companies can determine that the appropriate services, products and pricing are delivered at the right time, in a context-specific, relevant environment.

Changing habits

Traditionally, customers would visit a bank branch to complete transactions, resolve problems, or receive personalised financial advice. But when all these offerings are available digitally and by proxy remove the inevitable frustrations of in-branch experiences, it begs the question: is there a need for physical banks? Outdated legacy systems contribute to a disjointed view of the customer, leaving tellers unable to solve issues, gain access to data quickly or efficiently, and unable to deliver hyper-personalised experiences. These encounters mixed with long queues in-branch further contribute to a disappointing customer experience.

Previously, digital interactions generally supported the physical experience. Customers would browse services, find answers to FAQ queries and contact information. However, as technology improved, efficient, easy-to-use digital-only banking solutions arose providing seamless customer journeys, efficient payment systems and instant communication through in-app messaging and chatbots. This enhanced end-to-end format was suddenly competing against traditional incumbents. Digital services were already on an upward trajectory when worldwide lockdowns forced branches to shut and customers to stay home, exponentially driving digital uptake.

However, behavioural science has identified that too much choice can be a bad thing; around 39% of customers leave a website and buy from a competitor after being inundated with options. In response to the overwhelming customer decision fatigue, innovative companies formulated hyper-personalised solutions that narrow the decision pool and offer experiences that superseded physical encounters. But as more brands innovate, expectations skyrocket. Customers feel entitled to obtain what they want, whenever they want, and as brands become increasingly globalised, 24/7 immersive, appropriate, enjoyable, customer-specific interactions are expected.

Netflix: hyper-personalisation through data

Why are Netflix and Spotify so popular? No two accounts are identical. Every customer has personalised interests, so why advertise the same content? To entice users to remain and return to the platform, Netflix uses data metrics such as user behaviour to capture and memorise preferences. This information is then applied to suggest content the system predicts the user will enjoy.

Leveraging data is not easy, especially with a dataset consisting of over 203 million subscribers. In the case of Netflix, the company uses; data processing software, traditional business intelligence tools such as Hadoop and

Teradata, and open-source solutions such as Lipstick and Genie to gather, store and process massive amounts of information. These findings then influence what content is created and promoted.

To store and process the rapidly increasing data sets, Netflix uses Amazon's S3 warehouse, which allows multiple Hadoop clusters from different workloads to access the same data. Within the Hadoop ecosystem, Hive is used for ad hoc queries and analytics, in a Pig for ETL (extraction, transformation, load) algorithm. Netflix also created Genie to assist in the breakdown of increasing data volume.

To enhance UX and build their recommendation system, Netflix uses the following metrics:

- Viewer interactions (ratings, history),
- Category information (year of release, genre)
- Other viewers with similar preferences
- Time duration of viewer watching
- The device used,
- Date, time of day and week watched
- Searches made within the platform,
- Re-watched content,
- Was content paused,
- User location,
- Metadata from third parties like Nielsen,
- Social media data

Netflix knows the importance of data; in 2020, a meagre $2.23 billion was spent on marketing (down 28% YoY), which was considerably less than the $17 billion invested in content. Proving successful with an impressive engagement rate of 90 percent of users consuming original content and 93 percent of shows being renewed past season one (compared to 35 percent in the TV industry).

Banking is no exception

Customers are willing to share their data as long as they receive offerings tailored to their needs, and 54 percent of banking consumers surveyed will consider switching providers if their banks do not offer the services they demand and expect. Yet 94 percent of incumbent banks are not delivering on this hyper-personalisation potential.

Even though banks have access to a goldmine of customer databases, legacy technology, lack of harnessing data analytics, poor understanding of behavioural science, and stringent regulations are stunting modernisation.

Incumbent banks have a negative reputation heavily influenced by the Global Financial Crisis in 2008. Customers believe that their focus is on selling products rather than addressing customers' needs, placing profits over ethical business practices. With growing frustrations and declining loyalty, customers favour challenger banks that utilise smart devices to offer personalised digital experiences, streamlined journeys, live alerts, accessible, easy-to-use, immersive apps, and frictionless service.

How challenger banks are leading innovation: Starling bank

Founded in 2014 and voted Best British Bank in 2018, 2019 and 2020, Starling Bank is one of the UK's first mobile-only banks. Promising to give their customers a 'fairer, smarter, more human alternative to banks of the past.' Starling Bank promotes 'the kind of banking features people actually need in today's world' by turning terabytes of data into real-time, actionable insights and scaling improved customer interactions.

Starling Bank identifies as a tech company as much as a financial institution. The bank uses tools such as; BigQuery for processing power, Google Cloud's Firebase and Firebase Crashlytics to build and run successful apps, produce clear, actionable insights into app issues with robust crash reporting solutions. To help customers track their spending and identify fraudulent transactions, Google Maps APIs are also embedded to provide geographical locations of transactions.

Starling Bank also uses Open Banking compliant APIs, so third-party developers can integrate technologies and provide a broader range of financial products and services, including insurance and investment. They also have

the potential to explore more hosting capabilities with open-source Kubernetes and Google Kubernetes Engine to build cross-cloud resilience and avoid dependence on one cloud provider.

Customers have already become accustomed to standardised, easy-to-use digital banking features. From real-time data capture and instant notifications to a quick and easy setup process - it's no wonder customers are voting with their downloads. Starling also boasts: insights and automatic categorisation of spending, nearby payments, settle up and split the bill features, a 'goals tool' to transfer money into savings, a marketplace for smart integrations, the ability to deposit cheques digitally, international payments and transparent fees, access to statements on-demand, in-app overdraft controls, and finally, both the Mastercard and debit cards are made from recycled plastic (first of its kind in the UK).

Empowered staff lead to excellent CX. A straightforward interface enables non-technical employees to navigate the system comfortably, allowing them to analyse and interrogate anonymised data, look for solutions, and add value to the business without relying on an analytics team. Not only is the technology allowing staff to provide better, more efficient service to their customers, but it also reduces the substantial overhead costs for IT departments, rent for multiple branches, in-house staff and uniforms.

Starling Bank contributes its growing success to the continued commitment to innovation. Consistently working on pilot projects using multiple platforms such as Google Cloud AI and Machine Learning allows for transactions to be analysed and continually developed, aiding the improvement of CX, operational efficiency and customer satisfaction.

Best Bank For International Travellers: N26

Named after a 26-side Rubik's Cube, N26 provides free basic current accounts and a Debit MasterCard to all its customers. Priding itself on being 100% mobile, allowing customers to open accounts within minutes from their smartphones, start spending with a physical card as soon as it arrives, flexible banking in real-time, instant access to personalised spending statistics, free cashback, no hidden or monthly fees, free cash withdrawals, instant transfers via MoneyBeam, inexpensive currency exchange, push notifications and exclusive discounts from brands their customers love.

Voted the best bank for international travellers in 2020, N26 is completely hosted in the cloud, and uses various tools to build and provide an exceptionally seamless, personalised and efficient customer experience on a user-friendly, secure app based platform. In the backend, ELK is used for consistent monitoring and capture of user actions, inbound and outbound http traffic, requests, users, response status and times. Nomad and Saltstack are used for flexibility, Consul for service discovery and configuration management, and Vault for managing security.

By using these developing tech tools, N26 gains invaluable insights enabling the bank to communicate with their customers on their level and offer services that matter to them. N26 is paving the way in an increasingly globalised economy for customers looking to travel the world, on their terms. By creating a best-of-breed partner ecosystem, rather than trying to reinvent service offerings, N26 are able to niche-down on their product and provide free services, therefore, how can incumbent bank's compete?

Is there room for retail banking?

It's hard to imagine with costly overheads, archaic legacies and a generalised stubbornness to evolve that traditional banks can survive, let alone compete with the up-and-coming digital disruptors of challenger banks. However, HSBC refuses to get left behind, declaring that CX and personalisation will drive success after Covid-19.

In 2016, HSBC embarked on an ambitious technology transformation to fundamentally change how it serviced its customers. From new ways of working to automation and tooling, an entire overhaul of the global IT function occurred.

Initially, the Bank attempted to crunch the enormous quantity of information through data warehousing systems, but the mixed stack was inefficient. As volumes grew with unstructured data, HSBC turned to Hadoop (Netflix's system) to foray into open source technologies. However, to integrate all the necessary components, cloud

technology was required. “Four years into the journey, we have built an enduring capability to enable personal and relevant customer experiences. We are improving data-driven business decisions that will also support the regulatory agenda. We have various modern Analytics and Machine Learning modules running on massive, curated datasets to support automated decision making for Risk, Financial Crime and Fraud,” says Pradeep Menon, HSBC’s Global Head of Data Engineering.

In 2018, HSBC became the first bank to fight financial crime with artificial intelligence and machine learning. Today, the AI solution has doubled the speed and accuracy of sanctions and money-laundering screening in cross-border payments. It’s undeniable that HSBC is paving the way for other large organisations to follow suit. By leveraging the latest data engineering technologies and utilising accurate analytics tools, personalised CX can be achieved, whilst still adhering to the stringent security, privacy and compliance rules of the sector.

Conclusion

91 percent of consumers are more likely to shop with brands that recognise, remember and provide them with relevant offers and recommendations. Therefore, it’s undeniable that hyper-personalisation driven by accurate data capture and curation is key to continued success.

As we emerge from Covid-19 and the subsequent isolations, a change window presents, providing an unmissable opportunity for companies across all sectors. The choice will be to maintain the status quo and watch the erosion of the customer base, or transform businesses to better engage and service customers. In the financial world, incumbent banks face impending demise if they don’t catch up. Even though traditional banks are not wholeheartedly trusted, they are still the primary source of financial housing for many. Challenger banks are new and disrupting the market. Some people remain unconvinced. Sceptics will be driven by their overwhelming sense of apprehension for the unknown - leaving space for traditional banks to reclaim their status - but not for long.

Customers will likely use both banking options in unison until they fully commit, so it’s imperative that incumbent banks consistently deliver experiences so personalised and seamless - they won’t even think about abandoning ship to their digital rivals.