WHITEPAPER

The A to Z of Cognitive Banking and Customer Intelligence

The secret sauce behind deriving quality insights for customers

aspire SYSTEMS

attention. always.

www.aspiresys.com

Why This Whitepaper is Not a Waste of Your Time

Time Saver

Have you ever wondered about how the retail and e-commerce industry has so effectively built their recommendation engines through AI processes and rule based algorithms? Have you not felt satisfied with the recommendations provided by Netflix? However, why is it, that the banking industry has not been able to create the same sort of experience for its customers? The industry that handles the financial plans and money – the most important singular item that runs a customer's life – is in a crisis and needs to enhance their systems.

Now there is good and bad news for banks. The bad news is that, the banking landscape just got much more competitive. With non-financial entrants like Facebook, Amazon, Google and Apple starting their journey in the payments domain, customers would be tempted between choosing the big names and their long trusted financial service provider (i.e. the bank). The good news is that, with the latest advancement in technology, traditional banks can truly script the biggest comeback and success story that would give filmmakers another story to tell. It would help banks retain their customers in the years to come.

64%

of consumers expect personalized recommendations, while

48%

of consumers were willing to wait longer in order to receive it.

Cognitive Intelligence is essential to any bank in terms of front, middle and back office operations. The ramifications of not going through with technological innovations are high in today's age and the benefits and ROI in terms of implementing it into your core banking system are massive. It is the case of win big or lose big and the choice is up to you. If you decide to take the leap, then this whitepaper will give you the complete narrative on the process and journey ahead of you. If you have already started on your journey, then, this whitepaper will help you through the complexities that creep up along the way. Understand the journey with which customer intelligence can take you to the helm of the banking ecosphere.

52%

of customers are willing to share personal and confidential information in exchange for product recommendations.

Introduction

The talk around artificial intelligence and machine learning algorithms has intensified in the 21st century. However, when it comes to technology based customer experiences, banks have found it tough to deliver redefined CX as per the customer's requirements. However, **61% of banks agree that personalized and tailored solutions for customers have helped them to build and provide better customer experiences for their customers and 57% state that it helped in the visitor engagement at the organization.**

So how do banks build their customer intelligence journey? The customer intelligence journey should start at the place where any B2B or B2Cs journey should start – around the customer itself. Banks should get involved with as much data as possible. In other words, banks should get to understand as much as possible about their customer with respect to their behavior across platforms and channels, across browsers and among all the other touchpoints of the customer. This sort of data addiction from banks will help customers to rely on banks to provide them with the experience that they have been desperately looking for.

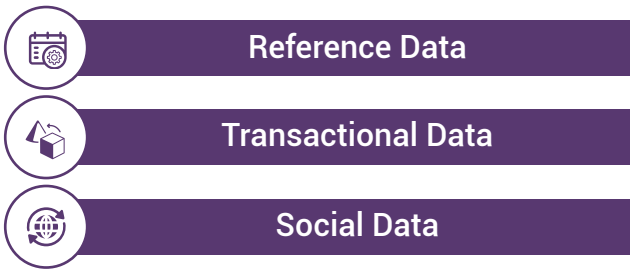
Hence, the sequence of steps in providing better experiences start from having a data strategy in place. Banks need to become more personal and have sensitized conversations with their customers in order to understand more about them. Through these conversations, whether through a bot at the front office or through a human resource, banks will be able to understand about the customer's patterns and behaviors on a daily basis.

What follows data strategies and conversations? Banks then have to start on a process of data ingestion where they can dive deep into the problems that are affecting customers on a daily basis. Banks can also collect data about the customer and their online and offline activity. Once this is completed, banks can move to cleanse the unstructured and messy data to ensure that the ML self-learning model provides accurate analysis of the data. With such authentic financial insights, financial advisors would be able to guide customers across difference service segments of the bank.

Introspect: *Before banks embark on a journey involving investments, data, customers and several crises along the way, banks need to ask themselves one question – What is the risk that banks would have to deal with, in case they do not implement powerful recommendation engines at their bank? What would be the risk of not using AI and ML in an age, where the competition in the banking and payments domain is fierce? In reality, the risks are massive and the solution to the crises is one.*

The Types of Data that Customers want you to look for

The customer's footprint is one which can be found across several online and offline mediums. There are different types of data, which when collected could enhance your forecast model immensely.



Reference Data refers to the personal data, which provides the identity of the customer and ultimately defines the core profile of the customer. It includes the general portfolio along with the preferences of the customer, which banks generally use. However, this outer layer of data, which banks use, is directly available to banks.

Transactional Data refers to the history of the customer with respect to his activities with the bank. It includes transactional history, service history and history of all complaints, suggestions and feedbacks. Hence, the transactional data gives an idea of what are the demands and requirements of the customer. Branch visits, phone calls, SMS and Emails trace these forms of data

Powerful Recommendations through a clear data strategy can help banks increase their revenue by

75%

and reduce costs by

25%

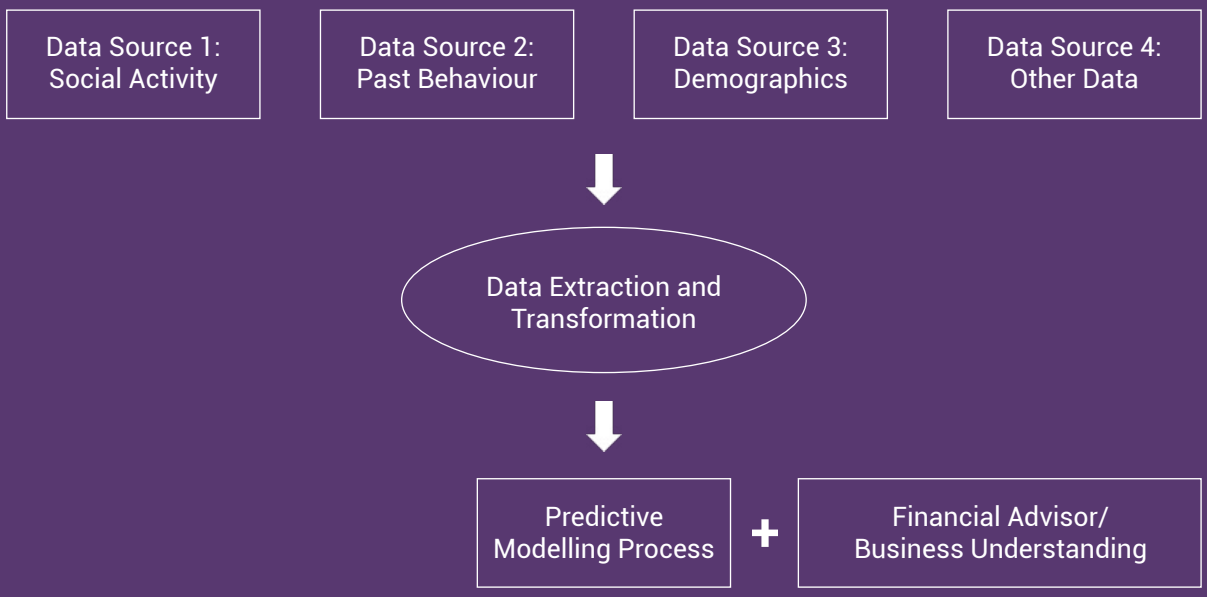
Social Data refers to the engagement history, google searches and social media activity. Sentimental analysis captures the emotions of customers through the positive and negative comments that one finds on social media sites. Social data can also refer to the content and frequency of visits and feedbacks.

Banks could also learn a thing from Netflix, the global entertainment giant. Netflix uses its platform to collect magnanimous amounts of data. Netflix collects all sorts of data concerning the movement of the customer on their application – this includes rewinding and fast-forwarding moments and how frequent do viewers leave the app denoting, how interested they are in the video. Banks could do the same with their digital applications.

The Pillars holding up the Customer Intelligence Journey

Pillar 1: The Ground Work that's required

Data discovery and collection begins with banks trying to understand more about their core banking system and the system requirements needed to entertain AI/ML models. This demands a gap analysis that can help the executives and strategists to create a strategy. Moreover, banks need to bring into perspective, the happenings in the banking landscape in the past, the present and the future of the banking industry. Only then, can rules be determined and the algorithm for the ML process be chartered out.



Pillar 2: Data Discovery and Collection

Essentially data ingestion is the first step in creating a high performing data strategy. However, data ingestion is a highly complex process. When data comes in, it requires a destination that can pull it. However, banks have to decide on whether to opt for a batch ingestion or stream ingestion. Stream ingestion can pull data in real time, however are extremely expensive to implement. Some of the complexities that bankers face are when they have to code and build a proper analytics architecture. Banks need to take precaution in this regard, as any disturbance in the initial stages of the ingestion process can affect the entire process down the line. *At the end of the day, with the data explosion that is happening, it is highly important that banks build a solid analytics architectural pipeline for their data.*

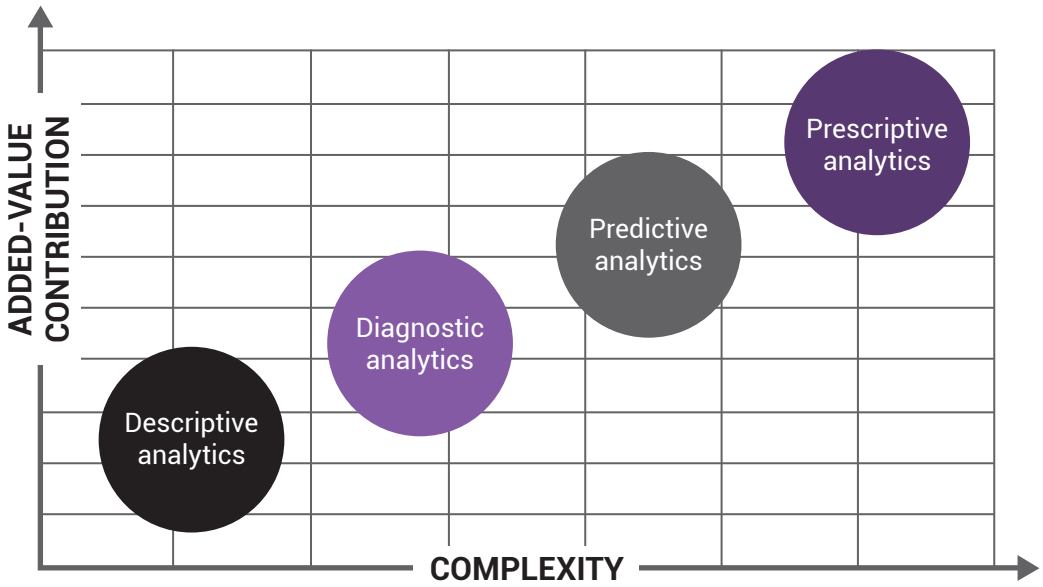
Pillar 3: Data Governance and Cleansing

Cleansed data is the required output for banks to use for their AI/ML model. However, raw data is always unclean in its true form. There would be innumerable cases of incomplete, inaccurate or irrelevant data, which could corrupt the dataset. There could also be several cases of outliers present, which if not corrected can cause skewed results, resulting in completely inaccurate insights.

Pillar 4: Customer 360° and Intelligence

The main aim of having a Customer 360° approach is to ensure that financial advisors give appropriate insights and suggestions to the customer. An approach, which gives the financial advisor a view of the complete database of the customer, provides the solution for this. Banks would be able to act on a customer issue effectively if they implement a customer centric approach when compared to an account centric account.

The Analysts Rule Book



Source: https://www.scnsoft.com/blog/4-types-of-data-analytics

Descriptive Analytics

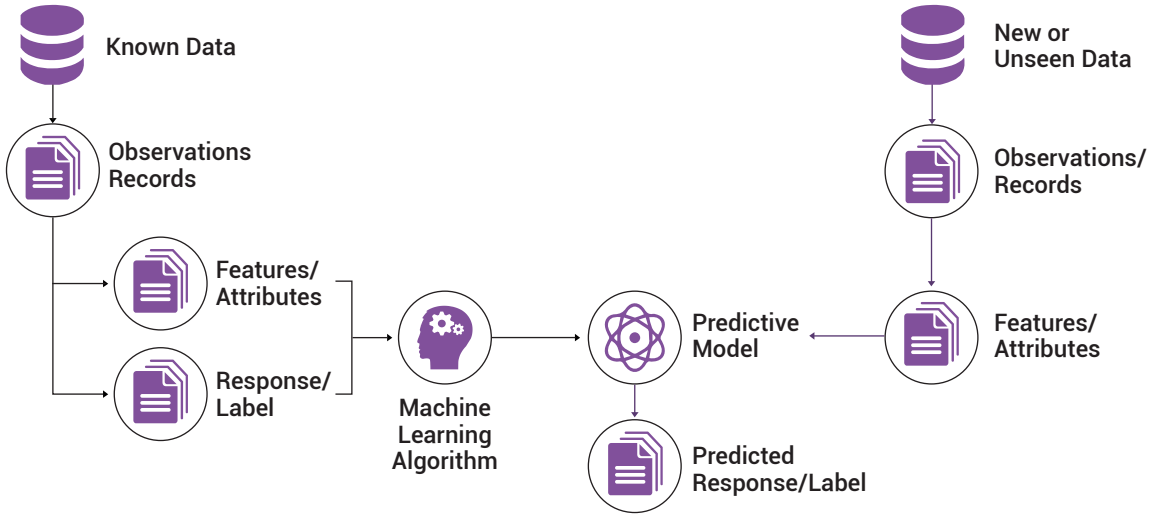
The first stage of analytics at any bank is to collect the available data based on financial transactions or solutions, which were opted by customers. Banks need to make sense of the vast amounts of data, before they can predict or reason or debate on the pros and cons of each solution, service or product offering at the bank.

Diagnostic Analytics

Diagnostic Analytics helps banks to understand the 'why' behind the data observed in the first stage. It also enables a data analyst at a bank to drill down into why a bank failed to attract a particular customer. Diagnostic analytics also comes into play when analysts have to figure about reasons behind outliers and their validity.

Predictive Analytics

The stage of predictive analytics utilizes the art of machine learning and data mining. The art of data mining comes into play when analysts have to work on finding hidden relationships between the attributes. Banks usually deal with millions of data points classified under hundreds and thousands of attributes (the more the data, the more the attributes and classifications). Once the data analysts have enough data to predict an outcome, banks can build predictive models for the same. With the new or unseen data that flows in, the machine-learning model will be able to self-learn and alter its predictive model automatically.



Prescriptive and Cognitive Analytics

Based on the predictive model that the machine-learning algorithm spews out, banks can provide prescriptive solutions that aim to improve the recommendations that financial analysts at banks provide. Along with prescriptive analytics, there can be one more stage – cognitive analytics –, which aims to mimic the human brain and provide automated solutions and deriving solutions and recommendations based on the existing patterns and inferences.

Final Thoughts

Stop Understating and Start Understanding the value of Analytics. Only 7% of banks focus on an extensive data collection process. A smaller percentage of those banks focus on having a working data strategy. Banks have been consistent in agreeing on the impact that AI and ML have to play in the banking landscape. However, with several challenges regarding the present core banking architecture, banks are struggling to progress further, even as technology threatens to outpace everything else in its sight. With each newspaper daily providing something novel as the latest innovation, banks have to start restructuring their platform, their data strategy and their model for better customer intelligence. We are at the juncture where customers opt for services and products, which aim at highlighting solutions for futuristic problems that they might face. Lagging behind in customer experiences and having a very low ease in banking rank does the bank no good, especially in a competitive space with multiple third party service providers and understated portfolios coming to the fore. It is vital for banks to act now. They can do that by being data addicted and chalk out a clear data strategy for their AI and ML process.

Retrospection: *So why have banks been hesitating to move to an analytics, data dependent infrastructure? Well, until now banks have been looking at the financial reward that comes through an analytics driven approach and guess what – it is not as cost effective as this whitepaper deems it to be. However, that is a very short sighted approach from banks. The truth is that any new discipline takes time to reach its peak and AI/ML needs that time to mature down before it highlights its true value to a bank. However when that day dawns sometime soon in the near future; will your architecture still be handicapping your entire bank from taking one-step into the future?*

References

1. https://www.finextra.com/blogposting/16882/customer-intelligence-and-ai-a-banks-lifeguard-in-the-millennial-age
2. https://www.mckinsey.com/industries/financial-services/our-insights/analytics-in-banking-time-to-realize-the-value
3. https://towardsdatascience.com/how-to-take-on-the-megabanks-with-predictive-analytics-and-ai-eff3c849fcc0

About Author

Ashish Cherian
Research Analyst,

Contact Us

NORTH AMERICA
+1 630 368 0970

POLAND
+44 203 170 6115

INDIA
+91 44 6740 4000

MIDDLE EAST
+971 50 658 8831

EUROPE
+44 203 170 6115

SINGAPORE
+65 3163 3050

Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

For more info contact

info@aspiresys.com or visit www.aspiresys.com