



Big Data Analytics Driving Revenue Growth in Retail Banking





### **Banking on Big Data**

Nicolasi has a vision of running a nouveau French restaurant. His grandmother's cooking, which has its origins in the French Basque Country, has taken on an avant-garde twist ever since she arrived in the US. His friends like her cooking style and Nicolas believes he is ready to give a shot at entrepreneurship on the back of his grandma's creativity. At the moment, he is discussing a loan with his banker. But, this is where the "I-dream-of-owning-a-restaurant" story takes a turn. The banker has decided to advance Nicolas the working capital, but, in addition, has some fine business advice. Would Nicolas like to know the best locations in the city for a nouveau French restaurant and the price point at which it can garner customer loyalty much faster? Nicolas is all ears.

Many banks would be happy to give Nicolas a loan. Not many would be able to add an invaluable service that opens a new revenue stream for the bank. For Nicolas, the bank sifts through its growing stockpile of customer and transactions data – acquired largely due to regulatory requirements – and churns out remarkable insights. The bank can also help Nicolas acquire customers through targeted promotional campaigns. The bank examines demographic data, income groups, preferences and spend patterns, behavior indicators by area codes and mashes it with social and mobile data, to come-up with great business insights for Nicolas. This is the power of Big Data!

Regulatory pressure has been forcing banks to invest in more data acquisition, storage, licenses, security, AMCs and people to manage the data. Practically every bank today has a big data implementation in terms of Hadoop running on their IT systems. But not all can generate revenue from data – turning a liability into an asset.

Banks find themselves at the intersection of advanced technology and sophisticated customers in a world gone digital. The data coming-in from IVR, web, mobile devices, ATMs, kiosks, CRM, surveys, social networks and partner services can lead to superior personalization of services.

Using advanced analytics on top of Big Data, customer data can help retail banks solve business problems far more complex than those faced by Nicolas. Banks are in the process of transforming their traditional data warehouses into information delivery platforms or 'Insights-as-a-Service' — an area that can aid service diversification and improve profitability. 'Insights-as-a-Service' will help retail banks go beyond non-interest income products. Banks can also improve top-line growth by acquiring new customers, efficient customer servicing through customer lifetime value maximization, by cross-selling/up-selling new products and services, and preventing customer attrition.

# **Drivers for Big Data Analytics in Retail Banking**

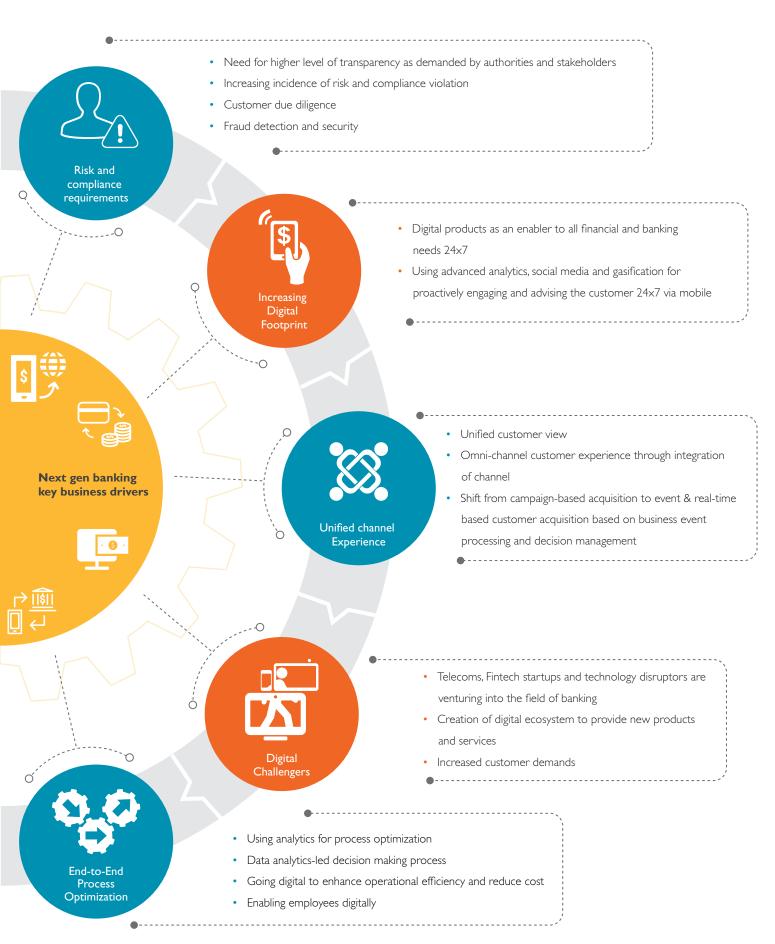


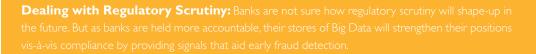
Fig 1: Drivers for Big Data Analytics in Retail Banking

Big Data has a way of solving the leading challenges the industry faces that old methods cannot. These include the following:

**Meeting New Customer Demands:** Technology companies like Google and Facebook are setting new customer expectations. As a consequence, customers want scores of new features from their banks as well<sup>ii</sup>. Big Data is doing this in three ways: by helping identify the services that customers want; by helping identify the price points for new services and forecasting ROI; and by helping customization of services.

**Managing Customer Lifetime Value:** Big Data can surface campaign strategies to acquire new customers, track customer response across channels, and adjust channel investments. Insights from Big Data can drive offers that matter to individual customers rather than generic approaches with non-optimal returns. Successful on-boarding can be followed with precise cross-selling, up-selling and next best offers

**Restricting High Cost of Operations:** Channel ROI can be maximized by using Big Data to identify locations where new physical branches need to be established, scaled-down or shut; data can flag services that can make branches profitable; and it can establish cost-effective channels for customer outreach, interaction and service.





### Emerging Core: Leading to Data Independence and

**Transparency** One of the key challenges in banking has been the data silos created due to multi-product/multi-LOB scenario and the data (structured and un-structured) being buried amidst multiple databases and core systems. Retail banks are exploring setting-up a common data repository that lies between front office (channels/touchpoints) and back office (core systems). A replica of all customer data and transactional data, including financial and non-financial data, is pulled-up and held in a common repository that forms parts of the middle office layer also referred by us as "Emerging Core". This has been touted to be the best approach to deal with the digital disruption — increasing the speed and agility to leverage customer data.

The set-up of this common data repository, aligned with the maturity and size of the bank is essential. Once consolidated, Big Data can turn into the underlying engine for building unassailable customer intimacy, creating new revenue streams, lowering cost of existing operations and risk management. APIs and Open Source technologies along with new approaches like Emerging Core are helping organizations to get their arms around huge volumetric data and make the prospects of gaining insights faster in a cost effective way. It is easy to see why banks taking bold steps with Big Data will lead the future.

- i Our fictitious example who helps explain the business magic that data can conjure
- ii For example, they want hashtag banking on a social media platform or the ability to transfer funds directly to friends using just an email ID like PayPal.

### **About the Author**

#### Sandeep Bhagat, Practice Head, Big Data Analytics, Wipro Analytics

Sandeep Bhagat is a Big Data technology strategist, product and platform visionary at Wipro. Sandeep plays a vital role in business & practice management, solution conception to execution, innovative application & product development. He is a Data Science practitioner with over 18 years of experience He has extensive experience in Business-Technology alignment, technology strategy advisory, new service offerings launch, new revenue stream generation and capability building for niche skills such as performance engineering, Big Data & data science.

His core technology expertise includes Big Data & Analytics, Data Science, Machine Learning, Business Intelligence, Information Architecture, Designing & Architecting High Performance applications, Product Engineering, Performance Engineering and Cloud Computing. In his past working engagement outside Wipro, acting as the chief architect, he has developed an innovative big data management platform BigDataEdge™.

Sandeep holds a Master's Degree in Computer Science from University of Pune & has undergone an Executive Program in Global Business Management from Indian Institute of Management Calcutta (IIM-C). Sandeep also has various industry certifications to his credit in Enterprise Architecture, Data Science, Data Management, High Performance Computing & Cloud Computing.

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