A Data-Driven Approach to Customer Relationships

A Case Study of Nedbank’s Data Practices in South Africa

By Laura Winig
This case study is part of a series of MIT SMR-produced stories exploring the analytically driven organization. This story is based, in part, on interviews with Nedbank executives. Both the featured company and the case study sponsor reviewed this case study prior to publication.

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A Data-Driven Approach to Customer Relationships

Introduction

In 2015, store managers at BUCO, a hardware retailer with 46 locations across South Africa, had an intuitive feel for whether men or women were their most frequent customers, which locations had the most loyal customers, and from what suburbs the most valuable customers to a given store were coming. That all changed shortly after Judy Gounden, a group marketing executive at BUCO’s parent company, Iliad Africa Ltd., began using Market Edge, a commercial data service provided by Nedbank Group Ltd., South Africa’s fourth-largest bank by market value.

According to Gounden, Market Edge — which packages credit and debit card information with geolocation, demographic, and other transactional data — enabled new insights into customers’ behaviors that would have been difficult to identify without the new tool. These insights in turn have changed the way the company operates, says Gounden:

We can now look at card transaction data and say, “On a Wednesday at 9:00 a.m., we had the most card transactions versus any other day in the week, and most of these people are 50 and 60 years old.” That’s our pensioner day. In some geographical regions, we’ve got very high loyalty, and in others, we get new customers constantly, so the tool helps us think about how we market in each region. What’s more, when I told a store manager who believed that most of his business was derived from local residents that, in fact, half of his business was coming from residents that lived in a town 10 kilometers away, his eyes went wide and he said, “How do you know that?” So we shared the data with him. At BUCO’s location in Nelspruit, which is on the Crocodile River in the northeast near Kruger National Park, we learned through the data that a large portion of our clientele was female, so we introduced a Saturday craft workshop featuring chalk paint. It’s the latest craze in do-it-yourself painting. The workshop was a huge hit; it just accelerated the craft area of that business. After that, department sales just skyrocketed. Many stores have replicated this example.

Chris Wood, head of emerging payments, strategy, and regulation at Nedbank, counts Iliad Africa and BUCO as one of the many success stories for Market Edge since its public launch in July 2015.
Wood's team sold or gave away the tool to 1,500 of Nedbank's merchant locations. Several large companies, such as Burger King and McDonald's, were either involved in co-creating the product with Nedbank as part of the pilot or had purchased the tool, demonstrating that it could make a significant business contribution to the bank's credit and debit card line of business as well as to retail and business banking (RBB), the largest business division within Nedbank Group. The value of Market Edge to Nedbank may derive less from sales of the tool — the typical price is a flat fee of 500 rand per location a month (about $35) — and more from expanding relationships with existing merchant clients and acquiring new customers.

A year after its launch, Wood was convinced that he could build a team to place Market Edge in 90,000 merchants. But there was one big challenge: The current sales force in the card and payments line of business was not yet effective at selling Market Edge, despite concerted training efforts. Nedbank had plans to expand the sales force, but there were many competing priorities and it was unclear whether the bank would support a sales force dedicated to Market Edge.

Nevertheless, the tool has shown Nedbank the promise of data and analytics as a commercial offering. It is also just one of several ways that the RBB business cluster is using data and analytics to build an edge in its market. “The strategic challenges that we've set for ourselves highlight the need to ramp up all of that [data] capability,” says Ciko Thomas, group managing executive of RBB. “We have momentum, but we need to build institutional and organizational capability.”

Background and Group Strategy

Nedbank was formed during the late nineteenth-century diamond and gold rushes that established South Africa as an important source of precious natural materials for world markets. Since then, the organization has had a prominent role in South Africa's banking system and can claim several firsts in the South African banking industry. It was the first to introduce computerized banking services (in 1964) and the first to pay interest on current accounts (in 1983).¹ Nedbank also claims that Market Edge was the first “big data” commercial offering by a South African bank.²

With 41 billion rand in 2015 operating income, Nedbank Group comprises four business divisions that effectively serve the full range of banking customers, from youth and mass market to professionals and high net worth individuals, from micro enterprises to large corporate accounts. RBB is by far the largest division in terms of operating income, clients, and employees, reporting operating income of 24 billion rand in 2015. The division offers traditional retail and business banking services, such as checking and savings accounts, alongside credit cards, loan services, and investment products while also operating the bank’s 703 branches/outlets and more than 3,700 ATMs. (See “Nedbank Group’s Other Businesses.”)

RBB has a matrix structure that includes both product lines of business (such as credit cards and personal loans) and three segment business units. Each has its own profit and loss based on a fairly complex set of rules of customer ownership, product revenue allocation, and transfer pricing of cost. “In each of these
business units, your P&L gives you a view of either client or product profitability depending on where you sit, but you never get to see the full picture of what your clients actually look like for Nedbank,” says Annette Francke, managing executive for the professional and small business unit within RBB.

The Card and Payments business, for instance, is a service provider to the business unit heads across the entire group, but it also has its own clients whose only relationship with the bank is around credit cards, and business clients who use Nedbank only for card acquiring. Nedbank transitions clients from one segment to another as their wealth or business circumstances change. For example, once clients reach a certain personal income level, they are offered private wealth products and are transitioned into that cluster.

Expanding its base of lower-wage consumers and micro-businesses is at the heart of Nedbank’s new growth strategy, called “Winning in Transactional by 2020.” “It basically means right-sizing our share of market,” explains Anton de Wet, who heads client engagement for RBB. Basel III banking regulations require banks to diversify their deposit base to diversify their risk, “so banks will be focused on making sure that they have many smaller deposits rather than a few large concentrated deposits,” says de Wet. Nedbank’s share of those smaller deposits — its share of transactional banking, particularly in the consumer retail space — is around 10%. To attract more of these now very valuable deposits, Nedbank set a goal of reaching a 17% share of “main banked” transactional clients by 2020.

The bank does not have a revenue target but rather expresses its 2020 goal in terms of the number of new “main bank” clients — those who do all or most of their business with Nedbank — it will draw in, striving to reach 5 million. As of December 2015, Nedbank had 2.7 million main-bank clients. Executives believe that organic growth, cross-selling, retention, and improvement in acquiring valuable mainstream clients will get them halfway there, but they expect the Winning in Transactional strategy to take them over the finish line.
offerings. They developed Market Edge to address this issue.

A second business issue was operational. RBB had been trying to improve its customer focus for many years, which included an effort to develop a better internal point of view about the value of each customer. However, it had no single system, accessible by all executives, that integrated data from the different product business lines to create a holistic view of a given customer’s profitability to Nedbank. The team is now four years into developing a database to address this issue. They call it “4-Cubed” because it offers four different points of view — by product, customer, region, and channel profitability.

A third business issue concerned customer engagement in branches. RBB was in the midst of an effort to reposition itself as a bank “for all,” seeking to overcome a market reputation for catering to the well-to-do and to build its share of customers from every income level. The business unit was particularly focused on expanding into rural areas and converting unbanked individuals into Nedbank customers, as a significant portion of South Africans have no accounts at all with any bank. At the same time, RBB was trying to improve the consumer experience by using several data-oriented tools to improve customer engagement in its branches, where many customers do most of their banking transactions, and to optimize the locations of branches and ATMs.

Commercializing a Data Product

Nedbank issues debit and credit cards, offers point-of-sale card devices for merchants, and processes payments (termed “acquiring”), clearing and settling transactions for merchants’ walk-in and online customers. With a 20% share of South Africa’s acquiring market, Nedbank has been looking for ways to grow in this space. The card-acquiring business is increasingly becoming a commoditized business worldwide, and customers were beginning to shop around on price. “It’s profitable, but [profit is maintained] through volume growth rather than margin growth,” says Sydney Gericke, head of Nedbank’s Card and Payments business. In 2013, he led a strategic review of the business and concluded that if Nedbank wanted to sustain the acquiring business, it would have to layer value-added services on top of the core business.

Gericke began to consider whether they could use the massive amount of data the bank had accumulated on debit and credit card transactions to help their merchant customers better understand their own businesses. Nedbank’s millions of cardholders — demographically representative of the entire South African banking population — were a very strong proxy for its merchants’ customer bases. He hypothesized that data from their transactions could provide more insights and be more valuable to the bank’s merchant clients than the market data they had been purchasing in the open market.

Nedbank had amassed a treasure trove of transactional data it could share with merchants: the type of card being used, the time of the transaction, the size of the purchase, the retailer, the location, and many other variables. And if the customer’s card was Nedbank-issued, the bank could also provide age, gender, race, marital status, and income bracket — right down to specific customer information. Gericke felt that augmenting the payment data with Nedbank’s demographic data would be the key to creating a differentiated offering.

In late 2014, Gericke established an Emerging Payments unit within the Card and Payments business, an independent innovation team designed to incubate promising new technologies. He realized that to be successful, new innovations would need to move faster than the traditional pace of the business, yet stay small and focused and, importantly, the benefits — i.e., revenues — had to accrue back to the bank’s core businesses. “That’s how you get their buy-in,” says Gericke.

Nedbank began to develop the product, dubbed Market Edge, by adapting a web-based analytics platform (MicroStrategy) that the company was already using for enterprise-wide analytics. Chris Wood was recruited from a group-level innovations
team to lead the incubator within the Card and Payments product business line. His team focused on a few chosen projects, most notably Market Edge. After running a nine-month pilot of Market Edge with 12 retailers, representing a cross section of different industries, the incubator officially released the product, which cost 1 million rand to develop, in July 2015.

Nedbank markets Market Edge as a data analytics tool that records customers’ shopping behavior and offers behavioral insights mined through Big Data on a web-based platform. Merchants are provided with consumers’ spending patterns, income segmentation, gender, and age demographics; they can view and use their consumers’ transaction histories to improve product development and inventory management, set staffing levels, and the like.

**Market Edge in the Field**

Early efforts to commercialize Market Edge led to several insights about both its business potential for Nedbank as well as the company's ability to achieve that potential. With respect to business potential, many customers — both large and small — were able to use Market Edge to generate significant business value by learning more about their customers. It quickly became apparent that enhanced customer service via Market Edge held the promise of deepening customer engagement and improving customer retention.

Nedbank’s first Market Edge customer was a vegetable store owner who never dreamed he could access Big Data. “A guy like that would never, ever be able to buy the IT and intelligence that we were giving them in Market Edge off the shelf,” says Wood. As one of the early users of Market Edge, the retailer BUCO demonstrated that store managers could improve their decision making with the tool but needed help on how to interpret the data. “We don’t have a lot of data on our customers — where they come from, what they do, how they spend, etc. This is what Market Edge offers us,” says Gounden, who gave her marketing team at Iliad access to Market Edge; her team collects the data, shares it with local store managers each month, and helps them determine how to use the data to impact the business. Gounden estimates that Market Edge has saved the company at least 500,000 rand by stemming losses and improving operational efficiency.

Other Market Edge clients developed unique uses. According to Wood, local pizza chain Andiccio 24 uses Market Edge’s geolocation data — where customers come from, where they live, how far they travel — to plan expansion. The CFO of restaurant chain Cape Town Fish Market requires its franchisees to use Market Edge; while each franchisee gets access to the product free of charge, which helps with operational and staffing-level decisions, the CFO gets oversight. Wood finds that Market Edge provides merchants with a strong incentive to consolidate their acquiring business with Nedbank. With franchise chains in particular, where stores might be independently owned and operated, franchise headquarters wants to use Market Edge to see the entire business. “Market Edge becomes the reason why they will shift their other acquiring business to us,” says Wood. “We may offer Market Edge without an additional cost, particularly to retain a customer that’s threatening to leave the bank or move their business elsewhere or as a carrot for a salesperson to offer a potential new customer — as long as they look at the entire banking relationship, so that the value of Market Edge is incorporated into the gross operating profit that we make on the customer.”

Market Edge also helps improve merchant loyalty to Nedbank. “Where before they might have said, your competitor made me a better offer, you need to match or I’m moving my business, now the issue is around value for the client,” says Wood. As merchants begin to rely on the data to run their business and operations, they became less price sensitive to the acquiring fees. Simon Marland, Nedbank’s executive head of digital and business intelligence solutions, notes: “Once they’ve got skin in the game, they generally don’t argue about the price. Market Edge differentiates Nedbank. We’re telling them something about their business that nobody else has told them.” Jo Baliah-Coelho, head of digital product and innovation, adds, “Our competitors have lost merchants who have moved to us for Market Edge.”
Growing the Venture

Despite these initial successes, Nedbank has encountered several challenges when it has tried to expand commercial sales of Market Edge. The Emerging Payments team recruited 12 Nedbank Card salespeople from across the country and trained them on Market Edge. “We wanted them to go and champion the product into the regions,” says Wood, who expected that these newly trained champions would accompany the regular salespeople and lead the sales conversation to get the regular salesperson more comfortable talking about data analytics. But the plan failed. Even with in-depth training, the champions and salespeople — who, in some cases, had known their merchant customers for 10 or 15 years — did not feel confident representing Market Edge, forcing Wood to dispatch his Emerging Payments team members to meet with customers. “I had three people literally living their lives on airplanes going to see key merchants around the country,” says Wood.

When Baliah-Coelho and Wood sell Market Edge, they have a very deliberate approach: They show prospects the tool populated with the prospect’s own data. “We come to the end of the demonstration, and they’re always taken aback. It’s not something they expect from a bank,” says Baliah-Coelho. She says she serves as a data interpreter, helping clients understand what the data means and how to use it.

“We can’t just expect a retailer who is very good at knowing what shampoo should be on the shelf to see data and interpret it in a way that makes them change their business,” says Wood, who sees an opportunity to add consulting services to the mix. After one such meeting with the CFO, COO, and CEO of a large pharmaceutical retailer who expressed interest in quarterly data discussion meetings, Wood and Baliah-Coelho explored the idea of contracting with boutique consultancy firms that could package the data into a quarterly report and meet with Nedbank’s clients to help them optimize the findings. “One of the things that Nedbank always talks about is being your strategic partner in growth. And in Market Edge, we literally live that, because we give you strategic aids that absolutely change your business,” says Wood.

While he was pleased with the results — “we signed up some really, really big brands” — the sales model isn’t yet scalable. Wood feels a successful sales team would need to understand data analytics and be trained in statistics — knowledge and skill sets that the current workforce does not have. “It is difficult to take a sales force that’s used to selling widgets [and ask them to] now sell value,” says Wood. Gericke agrees: “I don’t think we’re going to achieve huge success with our sales force as we know them today. A specialized sales force will have to supplement the current workforce.”

However, current planning for a specialized sales force in Card and Payment does not include a sales team dedicated exclusively to Market Edge. “We don’t want to overcapacitate one idea,” Gericke explains. “One idea can always go faster than the rest. What you don’t see is how that makes everything go slower. You’ve got to actually change the very way you operate so that you can do it on a broader front.” At the time, the bank was retooling its IT infrastructure, causing delays in any project that required technology support. This situation exacerbated a tendency at the bank to leave innovations unsupported once they moved beyond the pilot stage. Given this situation and history, Gericke was concerned about the pace of moving innovations past initial stages and had proposed a model to speed up the pace of the bank’s digital innovations, specifically their commercialization. This included bringing in a specialized sales force for all of the most promising innovations, not just for Market Edge.

In the meantime, Wood’s staff of three continued to be the primary closers of Market Edge sales. “Whenever they engage, they make a sale,” says Gericke. Yet these capacity constraints meant they couldn’t sell very much Market Edge, currently just at 1,500 locations. Gericke would like to see 10,000 more merchant locations using Market Edge. Wood is more ambitious: With 200,000 businesses in their base, he’s shooting for 90,000. To date, Nedbank has targeted very large organizations — the strategic partners the bank as a whole is anxious to retain. But they do not yet have a clear picture of what success will look like, their financial return on investment, or even a metric to measure their progress outside of
counting merchant locations. Still, Wood believes he has a sleeper hit on his hands. "We're selling something that people don't yet know they want," he says. Once customers see Market Edge and begin to use it, he says, they want to go further. "Now they want the next thing, and they want the algorithms to tell them what they should do with their business."

While speaking about Nedbank's plans to commercialize data through Market Edge at a conference for banking and financial services executives in Europe on social media analytics, some expressed concern that Nedbank was attempting to sell merchants their own data. But Wood argues that even though merchants may already see the data in its raw transactional form, Market Edge packages it to be more easily used for analytics and business insights by augmenting the transactional data with Nedbank's own client information and other valuable data sources, such as census and geographical information, to make the end result far richer.5

Gericke feels that Market Edge will be a strong driver of achieving the Winning in Transactional by 2020 goal but admits that his colleagues might not agree — most likely because they don't understand how the product can contribute to boosting transactions. Many merchants only purchase acquiring services from Nedbank, preferring to keep their transactional accounts, such as checking, with another bank. Gericke believes that the bank has an opportunity to use the lure of Market Edge to convince these clients to move their other accounts to Nedbank. "You cannot have Market Edge if your [transactional accounts are] with another bank," says Gericke, envisioning the sales call. "So Market Edge is not fighting against the direction the bank has crafted for 2020. It's very supportive."

A New Look at Customers With Four-Dimensional Financial Data

David Crewe-Brown, executive head of finance for RBB, recalls that when he first joined Nedbank Retail as chief financial officer, nobody knew how much profit was derived from any given customer. All of the management accounting and reporting had been set up around product-line views of the business. "We knew very well the profitability of a home loan or a vehicle finance loan, but we didn't know what the profitability was of a particular client or client grouping. We were very product-focused," he says. As a result, a customer with a personal loan with Nedbank who wanted to open a current (checking) account would have to start the application process from scratch, as if he had no existing relationship with the bank.

In 2010, Crewe-Brown began to build a database that uses all the general ledger data feeds to go beyond a product-line view to offer profitability data by product, line of business, region, and distribution channel. The database, officially called client value simulator or CVS by the development team but widely nicknamed 4-Cubed, debuted in 2012. (See “4-Cubed: Four Dimensions of Customer Profitability.”) Geoff Meyer, head of Business Intelligence Services, explains the problem they are trying to solve with 4-Cubed:

The head of a business unit or branch doesn't get to see the full financial impact of the suite of products that his or her clients have purchased. For example, all credit card revenue is allocated to the credit card line of business, so when you look at the income statement for Retail Relationship Banking, they only see 60% of their clients' revenue within the financials. That makes it difficult for them to manage their business because they don't know the true value of their clients. 4-Cubed enables the business units to see all their clients' business with the bank, regardless of which line of business the profit accrues to.

Francke explains that if the only lens she has available to measure her business unit's performance is an income statement, she misses revenue her customers are generating for other business units in the bank. "This is a benefit of 4-Cubed. I can see the..."
total value of our clients’ engagement with the bank regardless of how that income is accounted for, and take this into account in client pricing and servicing decisions,” she says.

Because the database allows managers to take a holistic view of their customers’ profitability, they can make better product pricing decisions because they now can take into account a client’s entire portfolio of business with the bank. Crewe-Brown feels that the ability to customize pricing increases client retention while giving the bank an advantage over its peers. “Nedbank could offer a client a lower rate on a home loan, for example, if we know we’re bringing profitability elsewhere,” he says.

By using a channel view of 4-Cubed, Nedbank is able to determine the profitability of its ATMs and branches. “The various formats of branches and outlets all have different profit margins, and we can start measuring how they’re performing to make decisions around distribution,” Crewe-Brown says. For example, in the past, if a client took out a home loan, the branch that originated the loan would receive credit for the loan’s profit for the life of the loan, regardless of where future loan servicing took place. Now, the bank has the ability to allocate profit between the originating and the transacting branch for home loans, personal loans, and any other long-term product. As a result, the bank can make better decisions about which branches to keep open and which are transacting too little business to justify current size or even remain open. “If a branch is only getting revenue from home loans that were sold 10 years ago and nothing’s going through today, you don’t want to keep the branch going. It might look profitable because of the historical revenue, but you want to look at the current year’s profitability. The branch profitability model is focused on current sales, current profitability, and current targets,” he says.

Francke feels the 4-Cubed management tool has shifted the organization’s thinking and ability to understand data, though she agrees that it hasn’t been used to the full extent yet. “I think it’s been instrumental in thinking about branch as a channel, understanding branch profitability, payback periods, and informing roll-out strategies. It has also been used extensively in understanding client segments and their profitability at a high level, but the real value will come when we can make the information accessible at client level to all decision makers,” she says.

Expanding Use of 4-Cubed

Only three managers — Crewe-Brown, Meyer, and another CVS team member — had access to the 4-Cubed data. Though Meyer and his team have created dozens of off-the-shelf management reports and put a dashboard on top of the data to make it easier for managers to use, they are still inundated with requests for ad hoc reports, which can take two to three days to create. “We are physically unable to meet demand due to resource constraints, which means we start losing momentum,” he says. Even after four years and 12 iterations, they are still working to develop a dashboard that meets everyone’s needs.

Due to the massive size of the database, Crewe-Brown is limited to providing managers with aggregated data, which forces them to go to Meyer for client-level reporting. Indeed, before a recent infrastructure upgrade, Meyer did not grant managers outside his department access to 4-Cubed because it put too much constraint on the already overloaded servers. “We’ve now started allowing people from outside the department access in a controlled manner,” says Meyer. But Crewe-Brown says offering broader access means his team must first segment the database into more useable chunks. “For example, the branch profitability model is just a chunk of the data. We can make that database much smaller if you need just to look at one channel or a particular need, which might then make it more useable and more relevant — as opposed to giving access to the whole database,” says Crewe-Brown.

Though Crewe-Brown feels the database is robust and well-supported, from a usability standpoint, it is “not even halfway to where we need to be.” For example, Francke would like to use it to get a full view of professional and small-business clients. “That’s something we’re building,” says Crewe-Brown.
According to certain managers, 4-Cubed is a very powerful tool to evaluate financial performance through different lenses, but it has limitations for broader business use. “It offers only a one-dimensional, financial view,” says Tina Pieterse, integrated channels enablement executive. Her team — which crafts distribution strategy for the bank, determining where ATMs and branches will be located — needs a database that combines the financial information within 4-Cubed with environmental, geolocation, and external information such as census data to help her make distribution decisions. “I can only use one or two dimensions of it as an input to our decision models,” she says. Indeed, it may be the core source for the finance fraternity, “but it can’t be the only source for us, as we generally require certain lead indicators such as sales, transaction, and operational data to serve a broader business need.” Marland says 4-Cubed’s drawback isn’t the database itself but management’s capacity to interpret and act on the data. Though 4-Cubed may be able to measure a customer’s profitability, it doesn’t help bank managers understand why profit may vary from one customer to another. “Besides doing profitability categories, we need an interpretation that will simplify it, will script it into machine learning,” says Marland.

Crewe-Brown acknowledges the challenge. “If we could plug 4-Cubed into decision-making process tools immediately, that would be a big win,” he says. “If a banker could be sitting across the desk from a client and immediately call up the client’s profitability, I think the banker could make much better decisions as to what’s the next best product to offer.” But while bankers can look up historical data manually, they cannot see it in real time on their branch computers because the interface does not yet exist. Crewe-Brown and his team requested an interface from the banking platform team at the group level but received pushback over concerns that relationship bankers in branches might not know how to properly interpret the data. “You can’t have a banker say to a client, ‘Oh, I see you make us 2,000 rand a year, so you’re quite valuable.’ You don’t want them to have that conversation,” says Meyer. In the interim, however, the bank is using data and analytics (“propensity models”) to identify the “next best product” for the banker to introduce to the client in front of her.

Crewe-Brown is frustrated with the length of time it has taken to get to the stage where the 4-Cubed data is seen as reliable and therefore valuable as a decision-making tool. The team is planning to roll out data models by the end of 2016, and Meyer thinks their use of data models will be a big step, allowing more managers access to the data. However, he points out that there is a business understanding that needs to come along with this data: “It’s up to us to educate our clients,” he says, yet his team finds it difficult to get managers to understand how to run queries and interpret the results. Even so, only power users who can code in SQL will be able to use the data models — and none of them are senior decision makers. Still, self-service for executives is a goal, and Meyer says infrastructure constraints — rolling out hardware and software capable of processing the massive volumes of data — is the biggest hurdle. He thinks mid-2017 might be a realistic target to meet the self-service goal.

Improving Customer Engagement With Data

Several strategic decisions and related financial difficulties in the early 2000s led Nedbank to allocate resources and management attention in ways that fostered a market impression that it was a bank for elites. Its branch network languished as investments were made in online and mobile banking. The result was a much smaller branch network than its competitors had. Consequently, Nedbank lost customers who chose to go to banks with more branch locations, especially customers at the lower end of the income scale. Nedbank began expanding its branch network in 2006, but in 2009, RBB’s head completed a strategic review of the retail business and concluded that to stay relevant in South Africa, RBB would need to reposition itself as a “bank for all.” That meant continued expansion of its branch network, especially in rural areas, and freshening the format of its branches (making them smaller, while
adding more technology and an updated brand image). It also meant enhancing the customer experience inside the branches.

**Relationship Banking**

To improve customers’ branch experience and create more value from each customer, Nedbank launched the Retail Relationship Banking (RRB) business unit in 2012. RRB provides banking services to professional clients — white-collar wage earners (up to about 1.5 million rand) and self-employed doctors, accountants, and other service providers — and small businesses (startups and small enterprises up to 10 million rand in annual sales). At first blush, this might seem like an odd way to segment customers, but Franke explains that all of these customers have one thing in common: They receive relationship services through the physical branch locations.

The RRB bankers operate within Nedbank’s branch networks structure. Each relationship banker has a portfolio of approximately 400 to 600 RRB clients. Relationship bankers are expected to attend to walk-in customers as well as making proactive customer calls to clients within their portfolios. “We realized that relationship banking means that your clients firstly have to know who their relationship banker is before we can meet our business objective of building deep and enduring relationships. The revised strategy asked our bankers to contact their clients at least twice a year,” explains Grace Govender, head of new business and sales support. “What we wanted was a relationship banking team that was able to look at information and hold relevant client engagements that is aligned to the client needs.”

Prior to 2014, bankers received a monthly spreadsheet report, called Triple I (for information, insight, and intelligence), to review a client’s profile before making contact. The report identified products their clients had purchased and accounts opened or closed, but it did not adequately support the task at hand. Using the tool was cumbersome and time-consuming. “The banker would sit in front of it, but [had] no strategy to apply,” says Juan Human, national strategy and change implementation manager. As a result, Nedbank’s relationship bankers were having a hard time improving their cross-sell ratio, increasing sales, or otherwise improving the client experience.

In mid-2014, the bank rolled out a new Triple I report format, overlaid with a dashboard to help bankers better understand their clients’ demographic and sales history data. While Govender considered the Triple I report to be a “sales enabler,” she and other executives realized that the new format would require change management to ensure that all bankers were equipped to interpret this information while empowering them to structure a client engagement that was relevant to the client.

In early 2015, the bank conducted a formal sales-readiness program at 55 branches, using roleplays and case studies to demonstrate how to interpret and use the report data. The bank also hired sales-support managers to help the bankers interpret the data and coach them on how to have client conversations. Human felt that the new report removed complexity, providing bankers with more direction. “They can use the report data to determine, ‘Is this a client I need to retain? Is it a client that I need to develop? Is it a client with more potential compared to other clients in my portfolio?’ They can answer these questions now,” he says. Govender believes that the sales-readiness program, coupled with bankers’ use of the Triple I data, is improving the quality of customer engagement and loyalty. “We’re seeing that where clients have had a proactive, quality client engagement, that they are more likely to promote us as Nedbank.”

Higher customer satisfaction is also leading to better employee engagement and reducing staff turnover, which has dropped from 15% to 7% in the last 18 months, helping to meet Govender’s goal of retaining frontline bankers for a minimum of two to three years.

**Expanding Branch and ATM Networks**

Until recently, Nedbank relied primarily on descriptive analytics to assess the productivity and efficiency of a branch location once it was built,
rather than using predictive analytics to assess potential profitability before settling on a new location. Now, the bank uses data analysis to ensure they are taking into consideration census flows, traffic patterns, and population density before they build; by early 2017, they hope to layer on Nedbank customer data. For instance, one aim is to calculate the profitability of a potential branch by using data about the products that customers who live in a particular area are likely to purchase if a new branch opens in their neighborhood. This predictive data will then be used to inform a decision about whether to build a branch in that location.

Conclusion

The very nature of the banking business means Nedbank has access to vast amounts of transactional and personal data about its customers. “If you have to go to a bank to look for credit, you pretty much have to tell your life story to the bank, and that puts Nedbank in a position of incredible privilege,” says Thomas.

But while Nedbank has begun developing a robust data capability, it hasn’t yet created the organizational scaffolding to bring insights into the organization to generate value. “What we’ve got is pockets of excellence now sitting in businesses such as Market Edge. It gives you the first vestiges of the scaffolding. But we need other Market Edges,” Thomas says. “We don’t live Big Data. We don’t yet see problems and think, ‘How could data solve this for us?’ We have to ask ourselves, ‘How might the data help us do things better? How might it help us deliver better value for customers?’ We have to build institutional and organizational capability.”
Even organizations outside banking can likely see some of themselves in the Nedbank case study:

- **Silos** where information doesn’t flow well between parts of ostensibly the same organization.
- **Different sales channels** eager to claim revenue but reticent to own expenses, leaving the sum different than the parts (data dictator).
- **Encroaching competition** due to changing market conditions or strategies that haven’t panned out.
- **Staff** that are reluctant to embrace analytical results or have not yet mastered the new skills required.

Your organization may not be in South Africa or in banking or even at the same analytical maturity, but some of these issues probably feel uncomfortably familiar.

In this case study, Nedbank offers candid insight into its efforts to take advantage of its vast data resources. While everything hasn’t been smooth, the bank is making progress. It is becoming data-focused, and this illustrates several tensions organizations face.

Nedbank has had a long history of success with its current matrix structure, in which each unit has its own P&L. But increasing demands for holistic views, particularly of customers, strain this independence. Myopic focus on a single product, for example, doesn’t reflect the current or future value a customer might bring to the organization. The availability of data, shared across units, provides better indicators of the overall potential value of a seemingly unprofitable deposit customer. This potential value may be current, predicted based on other customers, or even based on the diversity the customer adds to the overall portfolio. But this cross-unit view represents a significant change for many.

Conceptually, human beings like the idea of classifying people into groups in order to vary offerings by type. Nedbank, for example, “transitions clients from one segment to another as their wealth or business circumstances change.” Increased data about customer behavior should allow Nedbank to take a far more granular approach in the future than its current segments allow — ideally, individually tailored interactions. It won’t be long before everyone expects this level of personalization, and cognitive technologies that use artificial intelligence will likely be necessary to achieve personalization at that scale. This will require the data infrastructure Nedbank is building now.

Incentive structures are critical in order to align employee actions with organizational goals. In banking, the current scandal at Wells Fargo & Company shows how well incentives work; employee benefits tied to account creation resulted in many new accounts. But vast quantities of token accounts was not likely the underlying organizational goal. Nedbank has a 2020 goal of five million “main bank” clients. Analytics can help make sure that the accounts created in pursuit of this goal are actually contributing value to the bank, not just new account numbers.

Nedbank’s current infrastructure hasn’t yet developed to the point where it can open access to all employees. However, technology advances relentlessly, and I expect it won’t be long before they do. Rather than being a nirvana, things might get rough. Widespread availability of data puts pressure on employees to use that data well. But these skills are currently not possessed by many of its employees. What is Nedbank doing to develop its employees’ analytics skills? Making data available is just one step. While the employees may be empowered, it takes experience to know what do with that power. (By analogy, there is a reason that hospitals don’t give everyone a scalpel.) Just being in the water doesn’t mean people automatically know how to swim. The gap between the organization’s ability to produce analytical results and its ability to consume those results may grow as people struggle with the pace of increasing sophistication.
Relatedly, privacy will be difficult to layer on after the fact as well. The potential for trouble is ever present; indeed, “[t]he very nature of the banking business means Nedbank has access to vast amounts of transactional and personal data about its customers.” Currently, only a handful of managers have access to this detail. But the tools Nedbank is building will increase access across the organization to detailed data about its customers. Technology will no longer be a limit. Employees will have newfound ability to do things that they should not.

As in many other organizations, the transition to a data-oriented approach can call fundamental aspects of the business into question. For GE, data is radically changing how the company creates value. Nedbank may soon face a similar transition with its Market Edge initiative. If it is able to scale this product—which is still far from certain—the organization will face some existential questions. In order to fuel Market Edge’s data needs, should it give away card and payment services—or even pay customers to allow Nedbank to process payment transactions for them? Reduction in silos should help organizations develop holistic views, but within these holistic views, it may no longer be clear which parts of a business should produce revenue and which parts should be in supporting roles.

Nedbank’s focus requires that its “executives understand customers’ behavior.” Data and analytics enables that. Building on, as the bank becomes more data-oriented, it should be able to turn its developing prowess on itself. As the bank dives deeper into analytics, data can help Nedbank understand more than its customers—it can better understand its own organization, employees, suppliers, and more.

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3. Basel III (or the Third Basel Accord) is a global, voluntary regulatory framework on bank capital adequacy, stress testing, and market liquidity risk intended to strengthen bank capital requirements by increasing bank liquidity and decreasing bank leverage.

4. The Card and Payment business was not strictly speaking a business unit within RBB, as it provided services to all customer segment businesses within Nedbank Group.


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