

# CELENT



## RATTANINDIA FINANCE:

HOW TO TRANSITION END-TO-END LENDING TO THE CLOUD  
WINNER OF CELENT MODEL BANK 2020 AWARD FOR RETAIL  
LENDING

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## CASE STUDY

This is an authorized reprint of a Celent case study. Although the reprint was prepared for Nucleus Software, the analysis has not been changed. For more information, please contact [info@celent.com](mailto:info@celent.com).

## CASE STUDY AT A GLANCE

FINANCIAL INSTITUTION	RattanIndia Finance Private Limited (“RattanIndia Finance”)
INITIATIVE	How to transition end-to-end lending to the cloud
SYNOPSIS	India is undergoing dramatic banking transformations around digital identity, internet adoption, mobile payments, and microlending as a non-banking finance company (NBFC), RattanIndia Finance is part of this transformation and is creating a de novo digital lender to provide faster, easier, and more customer-centric credit services in India. After an initial company launch in 2017, followed by a rapid growth period, the company decided to replace its entire lending IT stack and host it in the public cloud.
TIMELINES	Project start date: February 2018 Technology development end date: June 2018 Implementation and results measurement: 2018-2019
KEY BENEFITS	<ul style="list-style-type: none"><li>• Enhanced business reach, increased loan collections, and established the company as a customer-focused lender</li><li>• 90% reduction in cost of technology ownership</li><li>• 50% reduction in time to market for new product rollouts</li><li>• 75% reduction in FTEs (full-time [employee] equivalents)</li><li>• 99% reduction in time needed to implement third-party integrations</li></ul>
KEY VENDORS	Nucleus Software Amazon Web Services (AWS)

## CELENT PERSPECTIVE

- RattanIndia Finance outsourced 100% of its core lending technology platform to focus on its core company, product, and selling capabilities.
- This end-to-end lending case study was a “big bang” rip out and replacement of its legacy platform, which is now 100% operated in a public cloud environment.
  - This project case study shows that financial institutions’ concerns about putting core systems in the public cloud can be overcome.
  - This case study also shows that legacy on-premise systems may lack the most advanced real-time, componentized, and loosely-coupled features, and that by replacing them lending organizations can add system functionality, flexibility, and variable cost management to continue growing profitably.
- RattanIndia Finance was also able to consolidate its retail lending and commercial lending on one platform. This enterprise lending platform capability gives lenders an enterprise view of small business customers and lower system maintenance costs.
- RattanIndia Finance is one of few retail/commercial lenders operating solely in the cloud and was the first lender to launch financing for electric bikes in the Indian market.

# DETAILED DESCRIPTION

## Introduction

RattanIndia Finance Private Limited (RattanIndia Finance) is a non-deposit-taking, systemically important nonbank financial company (NBFC) registered with the Reserve Bank of India (RBI). It is headquartered in New Delhi, India, and is one of the top 10 NBFCs in India based on its currently estimated capitalization. RattanIndia Finance’s primary business focus is retail and commercial lending, including personal loans, loans against property, and business loans.

RattanIndia Finance is part of a larger business conglomerate—RattanIndia Group—with business interests in power generation and finance. The group’s investors include Lone Star, a global private equity firm with investments in real estate, equity, and financing.

Table 1: RattanIndia Finance Snapshot

RATTANINDIA FINANCE	
YEAR FOUNDED	2017
INDUSTRY RANK	A top ten nonbank financial company in India based on total capitalization.
TOTAL LOAN ASSETS	Approximately USD\$180 million (December 31, 2019)
GEOGRAPHICAL PRESENCE	India. Consumer finance operations are focused on the country’s largest 12 cities.
EMPLOYEES	Approximately 250 employees (December 31, 2019)
OTHER KEY METRICS	The company holds approximately 6,500 total loans and has around 80 salespeople.
RELEVANT TECHNOLOGIES AND VENDORS	<p>Amazon: Amazon Web Services (AWS)</p> <p><u>Nucleus Software solutions for retail and corporate lending:</u></p> <ul style="list-style-type: none"> <li>• Customer Acquisition System (CAS)</li> <li>• Loan Management System (LMS)</li> <li>• Document Management System (ECS)</li> <li>• Mobile Customer Acquisition System (mCAS)</li> <li>• Mobile Customer Self Service System (mServe)</li> <li>• Customer Facing Online Portal for Loan Application (eApply)</li> <li>• Customer Self Service Portal (eServe)</li> </ul>

Source: RattanIndia Finance.

**Company and Strategy:** RattanIndia Finance is a non-banking finance company (NBFC) created to disrupt the consumer finance market served by traditional regulated depository institutions in India. The company’s strategy is to leverage its capital and lending expertise through a technology-first sales strategy supported by local sales agents. They wanted to offer a faster,

easier, and more customer-centric experience as a differentiator in fast-growing lending market segments. This project initiative supported the company’s strategy to rapidly build a substantial portfolio of corporate and retail loans.

**Products and Customer Segments:** The consumer finance portfolio focused on the segments of loan against property, business loans, two-wheeler loans (motorcycles and electric bicycles), invoice discounting, and personal loans.

## Opportunity

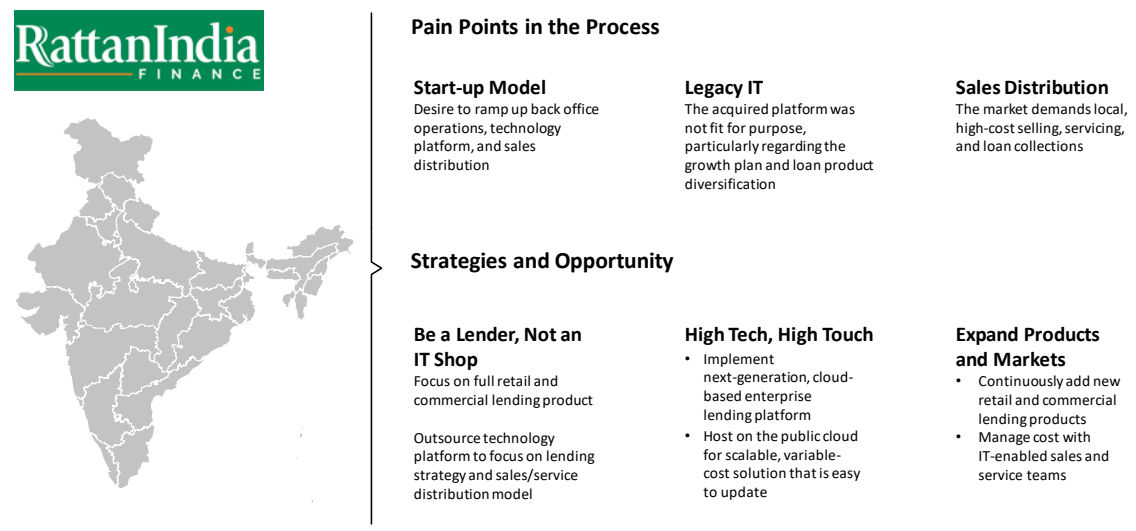
The India banking market has approximately 350 banks. It includes several different types of financial institutions: government-owned banks, other public-sector banks, domestic and foreign private sector banks, state cooperative banks, and regional rural banks. Approximately three-quarters of banks are small regional rural banks and cooperative banks. Although the Indian banking industry is diverse, its scale and distribution is insufficient for efficiently delivering financial services to a population of 1.3 billion people. Of this total, approximately two-thirds of Indians live in rural areas (as of 2018).

**Market Opportunity:** The market for lending in India is traditionally led by regulated financial institutions, primarily banks. RattanIndia Finance wanted to create a more efficient way to sell, originate, and service loans to a large but geographically dispersed market. They acquired an NBFC license, which is not as broad as a regular bank license but which met all their needs and was easier to acquire.

**Legacy Technology:** RattanIndia Finance wanted to launch and expand its lending product lines within the first year after launching in 2017. To get up and running quickly, they bought an existing loans company with a license and lending software. This basic lending platform wasn’t ideal or intended to be used long term, but it helped launch the business.

Figure 1 summarizes the challenges that RattanIndia Finance faced along with the strategies they chose. They had sufficient startup capital and a basic technology platform, but as a new company they had limited sales distribution capabilities.

Figure 1: RattanIndia Pain Points, Strategies, and Business Opportunity



Source: RattanIndia Finance, Celent

Their strategy was to hire local sales agents to develop relationships, source loans, and service clients and loan applicants. They would technology-enable these agents for better loan

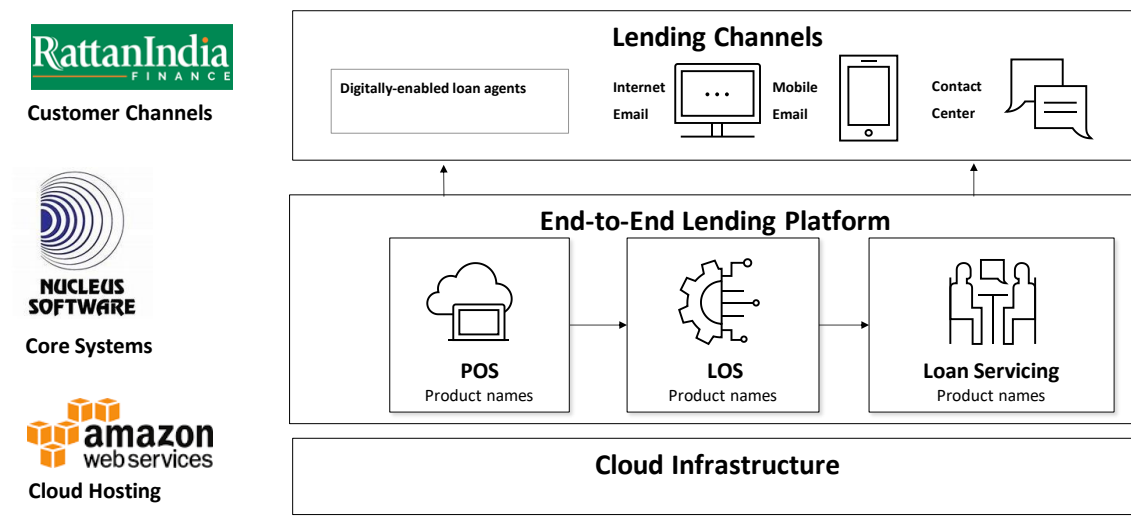
advisory, digital loan application collection, and faster loan decisioning and funding. They started off with a basic product set with the plan to add new products after the new system was built.

## Solution

RattanIndia Finance’s goal was to position itself in the market as the new benchmark for speed of loan application approvals, loan funding, and fastest time to market for new innovative product launches. To support this vision, the company wanted to create a completely digitized and automated lending process. RattanIndia Finance understood that to realize this vision its technology platform would have to provide flexibility, scalability, and low-code product configurability. They also wanted lean, fully automated back-office operations.

The project was a green-field initiative through which RattanIndia Finance planned to launch their lending business per their specified timelines, while strictly adhering to regulatory norms and prioritizing customer experience initiatives. Figure 2 outlines the channels, core lending software, and technology platform that RattanIndia Finance had architected, built, and deployed.

Figure 2: RattanIndia Finance Cloud-Based Lending Platform



Source: RattanIndia Finance

The company chose to partner with Nucleus Software and implement its entire FinnOne Neo line of loan origination, servicing, and collections software. FinnOne Neo is the cloud version of Nucleus Software’s lending solutions. Nucleus Software is a market leader in its technology category in India and has numerous bank lending customers.

Nucleus Software Solutions are hosted Amazon Web Services (AWS), which RattanIndia Finance also approved. AWS is one of the top two global cloud providers based on reported global cloud revenues.

**Sales Channels and Management:** RattanIndia Finance’s sales and product distribution strategy is tailored to the unique characteristics of the Indian market. Although technology and processing are centralized, sales is decentralized. They use a direct sales agent (DSA) sales model in local markets. Sales agents sell loans directly to businesses and consumers. They also sell employer loans indirectly to consumers through employers.

However, the sales strategy is high tech and high touch. Sales agents have both internet and mobile application access to the company’s products, loan applications, and back office operations. They can collect loan application data directly from the loan applicant, transmit the

data to the system, pull credit, initiate automated underwriting, receive a decision, and communicate it to the loan applicant.

**Centralized Product Management:** The technology platform also allows the corporate office to access transaction data by sales agent, analyze operating metrics, and manage the decentralized sales operations. RattanIndia Finance can also use the built-in business rules management system (BRMS) feature to create and apply local geographic rules for product eligibility, underwriting guidelines, target product profit margins, and other factors. For example, they can set different net margins targets for loans to different industry segments. They can also use the technology to adjust the sales model by geographic region to account for different business practices, quality of data, and ability to apply data-driven analytic loan decision-making rather than relying on judgement-based decisions by loan underwriters with local market experience.

For business loans, the sales agent can also upload the financials of the applying company from Microsoft Excel spreadsheets into FinnOne Neo, which then calculates ratios for automated underwriting. Digital verification of loan applicant income, assets, and employment is not always possible and verification is difficult to do manually, but in these cases a centralized underwriting team works with local sales agents to understand local custom and apply experience-based adjustments to submitted data to set target industry margins by geography.

**Lending Platform:** After a rigorous assessment of the leading solutions in the market, RattanIndia Finance selected Nucleus Software's FinnOne Neo because the system and company capabilities matched their vision. Nucleus Software's ability to deliver a 100% cloud-hosted end-to-end lending solution was an ideal fit for RattanIndia Finance's product sales and technology strategy. Reasons for this selection included the service-oriented architecture (SOA) based design, the scalable Oracle database management system, configurable workflows, and the ability to launch new products easily. RattanIndia Finance was keen to implement an advanced and streamlined loan lifecycle management platform while benefiting from Nucleus Software's three decades of lending domain expertise and the proven market leadership of FinnOne Neo. RattanIndia Finance chose to deploy FinnOne Neo in the cloud for its lower cost, advanced cloud data security capabilities, and ease of infrastructure management.

In addition, the Nucleus software team clearly understood their business requirements, and this understanding carried over successfully into the system development phase, when the project team expertly mapped the solution to the business problem and process.

Another major strength of the Nucleus Software platform is its combined support for both retail lending and corporate lending. FinnOne Neo is designed to cover virtually all areas of lending, and has multiple clients originating both retail and corporate lending on premise and in the cloud.

**Amazon Web Services (AWS) Technology Infrastructure:** RattanIndia Finance's early strategy was to deploy infrastructure technology and application software in the cloud with a zero on-premise technology footprint. They currently do not have any data centers, which enables them to focus on lending and scaling as the lending business grows rather than managing IT.

They have a cloud-based subscription to Microsoft Office 365, and host other business applications on Amazon AWS. AWS provides RattanIndia Finance with cloud-based analytics, computing, database, mobile, networking, security, storage, and other applications. With the cloud deployment, RattanIndia Finance was able to better match their IT costs with their pace of business growth.

In general, the factors driving public cloud versus on premise computing are evolving. Variable cost pricing and lower total cost of ownership (TCO) used to be the key factors, but increasingly financial institutions are focused on variable costs, outsourcing the infrastructure headache,

faster system updates to support faster new product launches, and the automatic update of cloud applications on mobile devices as well as lender back office systems.

**Implementation:** The implementation process was made easier due to the relatively small size of the company at the time and the focus on lending without a large retail branch and ATM network. Although it was not a start-up situation, there was not a lot of required data and system migration. Nucleus Software provided a pre-configured set of products in the base system, which shortened deployment time configurability, as did reusable software components and API interface integrations.

The two companies created a central planning and activity room to design custom user interfaces (UIs), workflows, etc. Having been through a half dozen cloud lending deployments previously, the Nucleus Software implementation team was able to manage the development and implementation very effectively. The system configuration exercise was carried out by RattanIndia Finance itself with FinnOne Neo experts playing a supporting role.

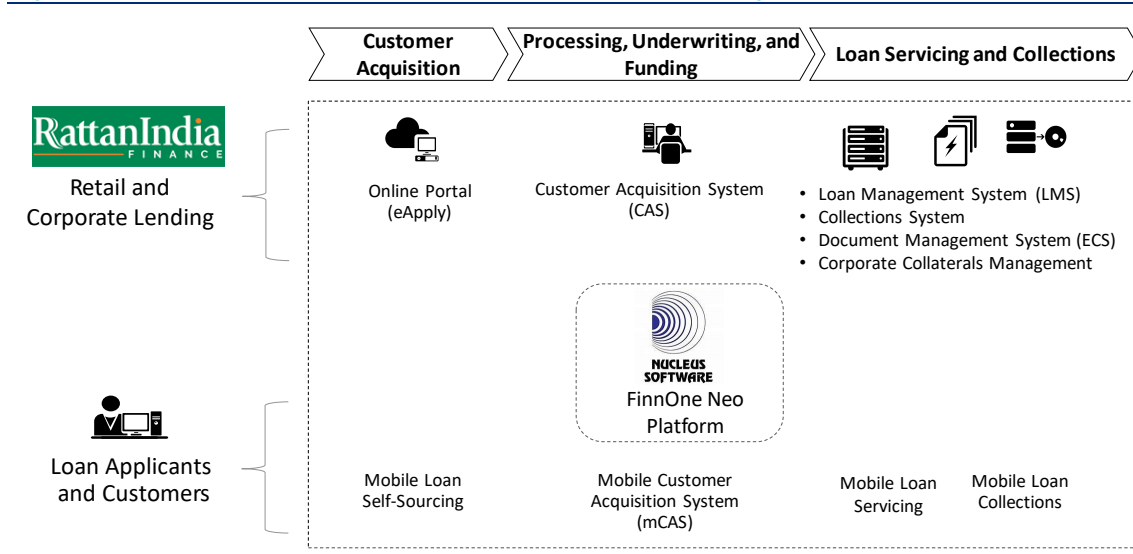
Cloud deployment also shortened the project timeline, since no servers need to be ordered, procured, received, or installed. This enabled the team to focus more on system testing and integration. Computer-based learning with the “train the trainer” model kick-started rollout among sales agents and loan underwriters.

The 100% cloud-based lending system still needed to integrate with external services and solution providers for credit reports, fraud assessment, loan disbursals, deposit processing, and digital document management. Nucleus had pre-built integrations for many of these needs and this further accelerated project completion.

## End-to-End Cloud Lending Platform Details

Figure 3 maps out the key components of the end-to-end lending platform.

Figure 3: Nucleus Software's End-to-End Retail and Corporate Lending Platform for RattanIndia Finance



Source: RattanIndia Finance, Celent

### The Core Platforms

The FinnOne Neo Platform includes a number of core lending systems and digital channel systems. The FinnOne Neo Customer Acquisition System (CAS) is the core loan origination system (LOS) which controls and automates numerous loan origination business processes and activities. There are separate modules for retail lending and corporate lending.

The FinnOne Neo Loan Management System (LMS) is the core loan servicing system that manages closed loans, collects payments, stores loan and customer information, and provides business reporting. FinnOne Neo Collections is a separate module that works in cooperation with LMS when a customer is delinquent on a loan. It manages, monitors, and controls delinquent loan accounts while automating loan collections processes. It has a rules engine that defines and supports collections policies and procedures in line with the lender's policies.

FinnOne Neo Enterprise Content Management (ECM) complements the other data processing-oriented core systems. It digitizes and automates document processing by capturing, indexing, storing, managing, and archiving loan documents. While many financial institutions have successfully moved data-oriented transaction processes to digital, document processing not always digitized or is digitized only in fragments. Integrated document processing is often the missing link in creating and delivering an end-to-end digital experience in both the front and back offices.

### Channel Technologies

RattanIndia Finance has deployed numerous digital channel (internet and mobile) technologies that support both customers and employees. The mobile app for direct sales agents is integrated to order and receive credit bureau reports and other in-house lender information. The collected information can then be sent directly into the LOS rules engine for automated loan eligibility and underwriting. Underwriting approval is then sent automatically to the agent's mobile app.

RattanIndia Finance also deployed all of Nucleus Software's digital channel solutions for customers, including:

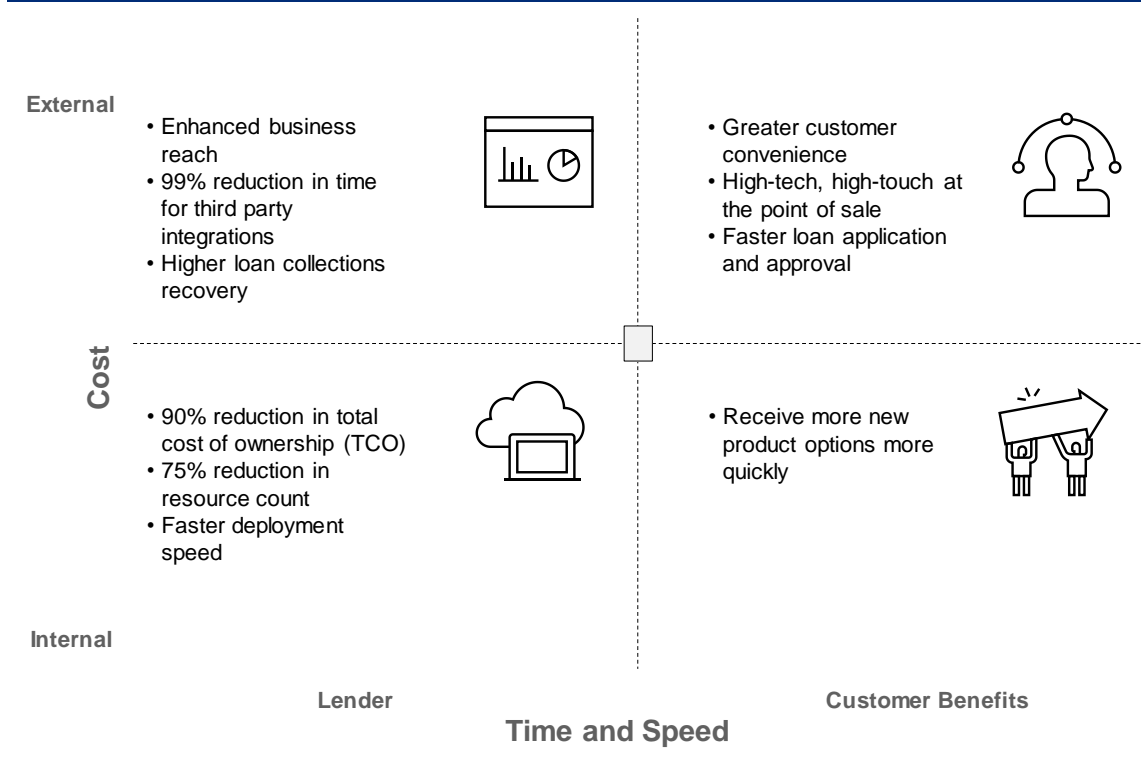
- Mobile Customer Acquisition System (mCAS) and Online Portal for Loan Application (eApply). These include loan application submission and loan status functionality.
- Mobile Customer Self Service System (mServe) and Customer Self Service Portal (eServe). These include customer self-service for changing customer information, making loan payments, and checking loan balances.

### Results, Lessons Learned, and Future Plans

The RattanIndia Finance effort to create a 100% public cloud based end-to-end lending platform was a very innovative achievement in the retail and corporate lending worlds. The initiative has enabled the company to provide faster, easier, and more customer-centric credit services in India, and to disrupt the traditional regulated banking lending approach to lending. Figure 4 summarizes the qualitative goals and quantitative results RattanIndia Finance achieved.



Figure 4: Qualitative and Quantitative Results



Source: RattanIndia Finance

**Reduction in Resource Count and Cost of Ownership:** With FinnOne Neo Cloud, the total cost of ownership for the lending technology platform at RattanIndia Finance was less than INR 10 million. This cost of ownership is estimated to be 90% lower than the cost for a similarly sized lending business in India using an on-premise approach. After implementation of FinnOne Neo, a five-member IT team was able to manage the entire lending product portfolio. The standard IT team size for a similarly sized lending company is about 15, which translates to an estimated 75% reduction in resource count for IT at RattanIndia Finance.

**Enhanced Business Reach and Faster Third-Party Integrations:** Faster and more easily maintained integrations with external systems are providing faster back-office processing and better front-office customer engagement.

**Greater Customer Convenience:** Using the lending mobility applications and digital portal solutions for loan application and loan servicing, RattanIndia is providing fast, convenient, 24/7 availability to its customers through multiple channels. The loan servicing apps provide easy availability of loan servicing information about repayment amount and schedules to its loan customers, resulting in higher customer satisfaction levels. This has improved the loan collections experience for customers with integrated communications (messages and emails) regarding outstanding loan payments, and ultimately helps customers pay on time and increases RattanIndia Finance collection rates.

**Reduction in New Product Time to Market:** With FinnOne Neo, RattanIndia Finance launched five different loan products within one year versus four to five months per product typically. The business rules engine helped shorten this time frame through faster creation of different product definitions and process workflows. This capability enabled the company to become the first lender to offer loans for electric bikes in the Indian market.

## Future Plans

With the successful completion of this initiative, RattanIndia Finance is focusing on a number of new initiatives. First, they are building out a digital direct-to-consumer channel to complement their direct sales agent model to reach a larger audience and serve locations without a physical presence or direct sales agent. In a country like India, digital channels are more than a convenience—they also make it possible to expand into new geographic markets and identify customers while keeping costs low. The company can then follow up with direct sales agents as needed to sell and service new customers.

Second, they are experimenting with robotic process automation (RPA) to reduce human intervention by digitally collecting and processing paper documents. Early results showed the need for better image quality, and the company is continuing to apply artificial intelligence training and improving the models. They expect to soon have a clear idea of how RPA can help them and their ability to put it into production.

Although the growth of cloud computing has accelerated in recent years, the movement of mission-critical core lending and banking solutions has not. RattanIndia Finance's successful transition of its entire end-to-end lending platform for retail and corporate banking is a leading-edge example of the future potential for the public cloud, which is why RattanIndia Finance is worthy of Celent's Model Bank 2020 Award for retail lending.

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