

Lessons Learned From Chinese Companies' AI Projects

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Findings from Chinese companies indicate a strong commitment to using AI to drive productivity, customer experience and business growth. Enterprise architecture and technology innovation leaders can apply these findings to their AI projects to improve their interactions with the business team.

Key Findings

- Operating in China has had no specific impact on the artificial intelligence (AI) technologies, development and deployment processes of the featured companies, so lessons are generally applicable.
- China's early adopters of AI have a strong interest in the technology and believe getting the solution out first and fast helps to establish industry leadership and gain competitive advantage.
- The companies featured didn't set specific financial targets in the initial stages as they tried to experiment and understand how everything works.
- Chinese companies are at various stages of AI development. Those in the more advanced stages compete on a global basis; others are still trying to find their way and rely on partners for technology development and implementation.

Recommendations

For enterprise architecture and technology innovation leaders developing strategies for AI:

- Set your ambitions for AI — leader or fast follower? As a leader, prepare to fail fast; as a fast follower, quickly adopt proven technologies and practices.
- If developing your own AI solution, work with the business team to improve your visibility and relationship, and to fully understand business challenges to prioritize use cases.
- Leverage business specialists, operational teams, citizen data analysts/processors, IT developers and external partners to help with data collection, cleaning and tagging and with model deployment.

- Identify the use cases that are better handled by AI technologies. Be as specific as possible to narrow the scope of work.
- Allocate enough budget and time to data collection, cleaning and tagging. This often takes the majority of the AI budget and resources — more than developing the model itself.

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Strategic Planning Assumptions

By 2022, 40% of B2C and B2B2C applications developed in China will include AI technologies, up from less than 10% in 2018.

By 2022, more than 60% of large enterprises in China will be developing their own conversational AI solutions with some support from third-party AI companies.

Analysis

China is in a race to establish global leadership in artificial intelligence (AI). Its government has announced a Next Generation AI Development Plan,¹ which outlines its ambition to accelerate AI investment and adoption. Major digital companies such as Baidu, Tencent and Suning.Com

(invested in by Alibaba) are fully committed to AI in order to secure leadership in their respective markets. They have not only invested heavily in AI technology development, but also set up AI labs in the U.S. to compete for the world's top talent where the pool of talent is larger. In contrast, industry incumbents — including those in high-tech sectors with high levels of R&D spending — are still in the process of formulating their AI strategies. These incumbents are not yet ready to divert a large chunk of their R&D budgets to AI while they are still trying to identify use cases with proven business cases and clearly mapped solutions.

The five companies featured in this research (see Note 1 for details) are all industry incumbents that have strongly committed to AI. They all view AI as a strategic technology that will deliver long-term benefits and allow them to establish some sort of industry leadership. None of the five companies has set any specific metrics for their AI investment, in part because they are new to the technology and first want to understand how things work and what results they can achieve. Such practices are commonly observed among early adopters of AI in China. Gartner expects these companies to set specific metrics, once they are past the initial stages and know more about AI technologies and their business impact.

The five case studies cover companies in financial services, e-commerce, aviation, agriculture and industrial manufacturing, representing both common and innovative uses of AI (see Table 1), as listed below:

- Customer review analytics, a top use case in e-commerce, helps a service provider improve store performance and drive revenue growth.
- Customer service chatbots are common in China and have been adopted in many industries. Fewer companies have launched robots in physical locations, notably in banking, retail and airlines.
- Predictive maintenance is the focus for industrial manufacturers.
- Online lending for small and midsize businesses (SMBs) and consumer financing are popular use cases in financial services. Many banks choose to use a solution from a fintech, rather than develop an in-house solution (as is shown in the featured case).
- Computer vision, which has been mostly adopted by the government for public security, is now being used by a pig farm to increase productivity.

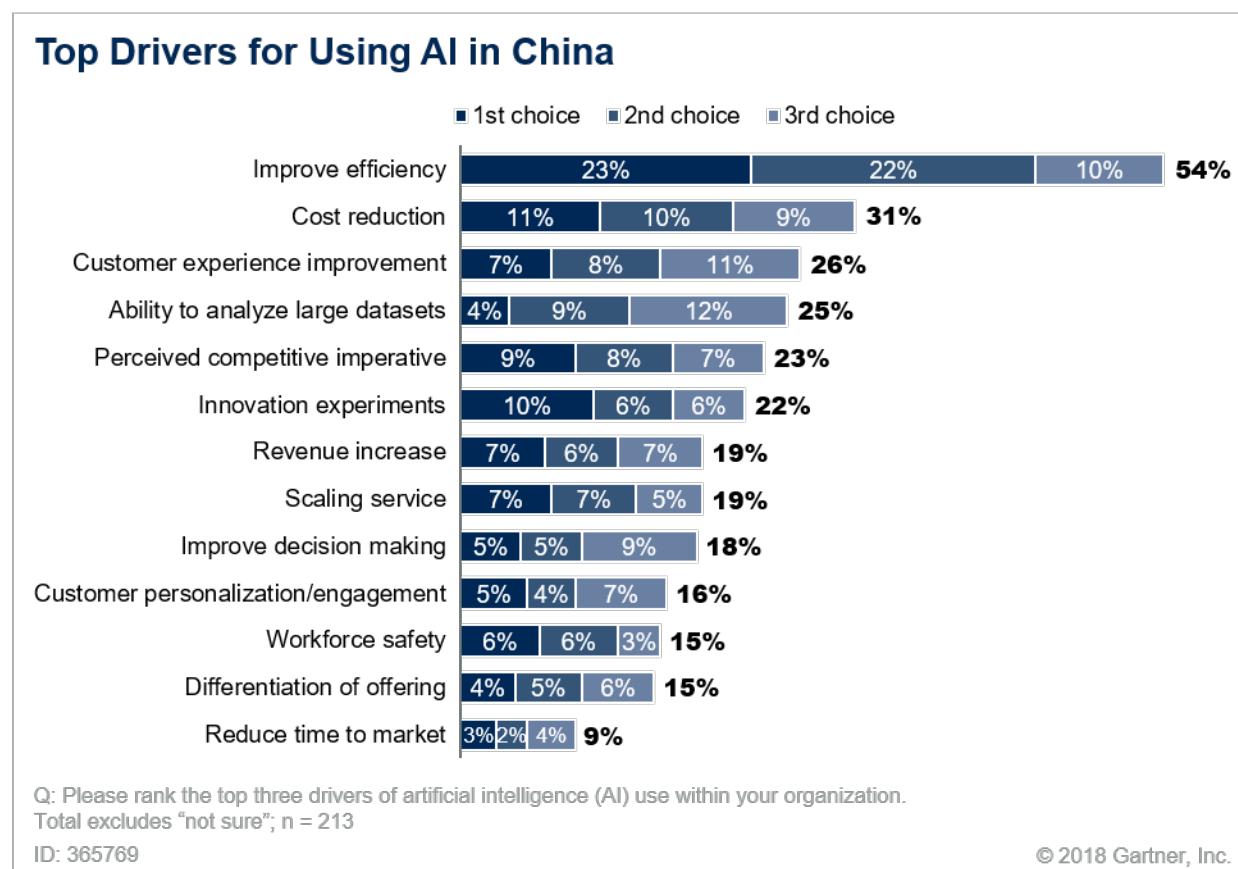
Table 1. Featured Companies and Their Use of Artificial Intelligence

Company	Industry	Purpose	Use Cases	Technologies	Approach
Baozun	E-commerce	Revenue growth	Customer review analytics	Text analytics	In-house
China Eastern Airlines (CEAir)	Aviation	Customer experience	Customer service robots	Natural-language processing (NLP), facial recognition and robotics	Technology partner
CIB	Financial services	New products, customer experience	SMB online lending	Credit assessment and decisions	In-house
Tequ Group	Agriculture	Productivity	Livestock productivity	Computer vision, infrared/acoustic sensing	Technology partner
Xuzhou Construction Machinery Group (XCMG)	Industrial manufacturing	Operational efficiency	Predictive maintenance	Prediction of Internet of Things (IoT) equipment breakdown	In-house

Source: Gartner (August 2018)

These use cases match well with Gartner's survey results for China,² which indicate that the top drivers of organizations' use of AI include improved efficiency, cost reduction and customer experience improvement, with revenue growth being a much lower priority (see Figure 1).

Figure 1. Top Drivers of Organizations' Use of Artificial Intelligence in China



Source: Gartner (August 2018)

From the five cases studied, Gartner didn't observe any particular impact that operating in China would have on the outcome, or development or deployment processes, of the featured AI projects. Therefore, lessons learned from these featured projects are generally applicable to businesses in other countries. Enterprise architecture and technology innovation leaders can learn from these projects to guide their own AI development and deployment processes.

Baozun Develops a Voice-of-the-Customer Solution to Drive Revenue Growth

Baozun is an e-commerce service provider that operates online stores on over 20 marketplaces, including Tmall (Alibaba's B2C marketplace), on behalf of brand companies. It provides technology platforms and operational support for online stores, and primarily targets sports, fashion, mother and baby, and consumer electronics industries. The company set up an innovation lab in Baozun Innovation Center in 2017, focusing on AI technologies to support business growth. The lab has about 70 employees, consisting of product managers, data scientists, data processors, product architects and market analysts.

Challenge

The operations team needs to analyze customer ratings and reviews and use that analysis as guidance in crafting corrective measures to improve store performance. Previously, such analysis was done manually on an anecdotal basis, combined with sampling that was limited to the customer review section of the online store. It usually took a few weeks between updates, causing lags in corrective actions in response to customer feedback.

Approach

Baozun decided to use AI to tackle this challenge with a voice of the customer (VoC) project. It employed text analytics as the key technology, and chose to analyze in three dimensions: products, services and delivery. It started by collecting data from various sources that include product, order, delivery and customer reviews of the online store, customer service chat sessions and its brands' social interactions with customers. It then cleaned and tagged the data for training. Initially, it had help from the operations team for tagging. Later, it developed a categorization system to reduce the tagging efforts, though manual tagging is still necessary due to the complexity and vagueness of the review wording. For each vertical industry, Baozun estimates it requires 100,000 tags to produce an effective model. The model is retrained every one to two weeks, depending on the amount of training data available.

Baozun's product managers play a key role in identifying the use cases that are suited for AI and that are most urgently needed by the organization. They communicate frequently with the business team to understand its needs, and set the direction for product development. They also work with the engineering team to develop friendly UIs for business users, and the VoC product has its own brand, BlueJay, and logo.

The innovation lab has its own profit and loss (P&L) responsibility. It charges the business units for using the products in the same way it charges external clients. This ensures the business units develop products that solve real business problems, rather than just carrying out research and experimentation.

Results

Baozun didn't set specific business metrics for the VoC project, but it's clear that it didn't do this to cut the head count of the operations team. Baozun takes a strategic view of AI-related investments, and aims to solidify its leadership in e-commerce technology and operational excellence with such capabilities. AI projects have high visibility among executives as well as business units, which often come to the lab for help. With the VoC product, the operations team can run analysis on a more frequent basis — from once every few weeks to daily, or as often as they like. With data-backed analysis, the operations team can also make targeted and responsive adjustments to drive store performance. The sales team also benefits, because it can position this capability as a differentiation when going after prospects.

Lessons Learned

- Take a product development approach. Baozun's product managers defined the project and scope, and the product was delivered with a friendly UI, brand and logo, and an attractive price tag.
- Work closely with the business team to raise the visibility of your development team and to better understand the business challenges.
- Require an experienced data science team to work out the algorithm to address the particular problem. Algorithms from research papers or open libraries don't always deliver the best results.

China Eastern Airlines Deploys Customer Service Robots for Better Passenger Services

China Eastern Airlines (CEAir) is one of the top three airlines in China. It currently operates more than 600 passenger and cargo aircraft and reaches 177 countries and 1,062 destinations worldwide. Its annual passenger traffic volume exceeds 100 million. It is ranked seventh among the world's airlines.

Challenges

Faced with strong competition, CEAir wants to improve the customer experience to differentiate itself. Initial initiatives are to automate and to provide personalized service via passenger identification, giving directions and answering questions.

Approaches

CEAir started its AI project in early 2017. This involved deploying customer service robots in major airports, with an initial goal of providing useful information and entertainment to passengers. It currently doesn't have a dedicated data science team and relies on a team that includes business and IT expertise. CEAir hopes to set up its own AI team as a separate business unit by the end of 2018.

CEAir selected a vendor providing physical robots with natural-language processing (NLP), facial recognition and movement capabilities. CEAir then worked on data integration and content development, focusing on the most frequently asked questions. The NLP solution parses text and applies intent, topic and category detection. The system recognizes and identifies passengers using facial recognition, conversational interfaces and identity documents. In August 2017, CEAir placed the first robot in Shanghai Hongqiao airport, supporting content search, such as for weather conditions, flight schedules, flight status and prices. The robot can provide personalized services based on the passenger's identity. For example, it can identify frequent-flyer program members and show the relevant benefits. It can also answer questions based on a passenger's travel information, such as the aircraft model, destination weather and local attractions. CEAir plans to increase the number of questions that can be handled by the robot every month.

CEAir also places robots in VIP lounges, where they can recognize passengers and identify them from its frequent-flier membership system. The robot can perform services such as providing directions and walking distances to the boarding gates, and singing songs to wish people a happy birthday. Passengers can also ask the robot for a joke or a song. In the first phase, the robots are used for information and entertainment. Some of the initial use cases are experimental in nature, to see how various technologies interact with passengers, and may not necessarily resonate with passengers. By understanding AI technologies, the airline can develop future use cases that would bring more value.

Satisfied with the results in the first phase, CEAir has continued with the second phase of its project. This focuses on processing transactions such as flight bookings, changes and cancellations, and passenger self-services such as check-in, upgrade, seat selection and printing of flight change letters — with a target launch date in early 2019. CEAir's current products work in Mandarin Chinese. The company plans to develop support for the English language in the future.

Results

As of July 2018, CEAir has placed one robot each in Shanghai Hongqiao airport, Shanghai Pudong airport and Beijing Capital airport. During peak hours (about eight hours), each robot handles about 200 passenger interactions. CEAir expects the number of interactions will be much higher once it deploys the transaction-processing feature. Deployment in more airports has also been planned.

CEAir's main goal for the robot project is to improve passenger satisfaction and brand awareness and, as the project is experimental, to better understand AI technologies. Return on investment (ROI) is not a consideration at this point.

Lessons Learned

- The biggest lesson learned by CEAir was to select the right use case. There are many AI technology providers in the market, with various capabilities — for hardware, software, NLP and facial/image recognition. It's important to identify use cases that can bring value to the business, so the company is not being led by vendor marketing. CEAir selected customer services because of the service nature of its business and a focus on the competition, which also makes the impact more visible to the business.
- During the first stage, some use cases — such as singing birthday songs and telling jokes — may not have resonated with passengers and are more experimental in nature. They are, however, important for helping CEAir understand how to work with AI technologies. In future stages, the company needs to focus on use cases that can directly contribute to business value.
- It's crucial to have close collaboration between the business and technical teams, and a clear goal for the project. It's also important to use data from various sources in order to improve the solution's capability. CEAir integrated data from both internal and external sources, such as passenger information, booking, membership status, weather and flight information. This data helped to enrich the services and support personalization.

CIB Launches Online Lending to SMB Customers

Founded in 1988, China Industrial Bank (CIB) is No. 21 in the ranking of the world's most valuable banking brands, with a market capitalization of \$55.5 billion. CIB's main services include banking, consumer financing, trusts, financial leasing and asset management. As a subsidiary, CIB FinTech is the leading cloud provider for China's banking industry, which hosts 204 small and midsize banks' information systems. CIB FinTech provides a comprehensive range of banking applications, including core banking, credit, payment and online banking, and provides CIB with the AI solution in support of SMB lending.

Challenges

Lending to SMBs is an underserved market, because the application and approval processes are mostly manual and there are not enough bank employees to handle the increasing demand. In addition, it takes a long time to process applications because there is only limited and poor information to assess the credibility of those businesses. CIB wants to make it easier for SMBs to secure loans and to offer them more attractive rates by automating processes, while controlling its exposure to risk.

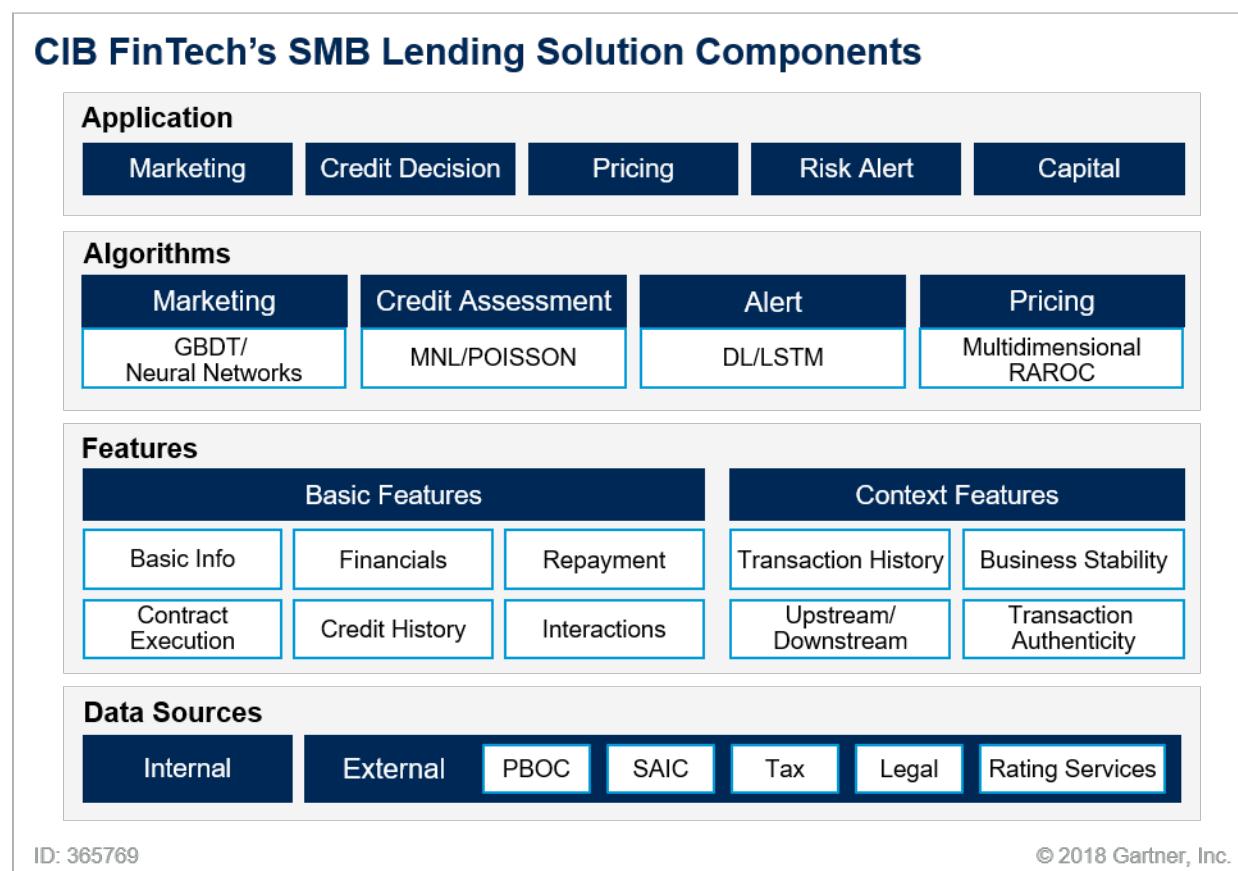
Approaches

CIB FinTech set up an AI lab to explore the use of AI, along with other emerging financial technologies in developing new digital products and services. The team has more than 10 employees with four roles:

- *Scenario and data analyst* — Responsible for analyzing the interaction between business scenario and required data, and designing customized algorithm products.
- *Algorithm engineer* — Responsible for researching, identifying and developing algorithms, and for exploring effective algorithm application in various business fields.
- *Financial modeler (a hybrid of financial engineer and financial analyst)* — Responsible for feature engineering and applying algorithms to model building, training and testing.
- *Model implementer* — Responsible for developing SDKs and APIs, and packaging, deploying and integrating AI models with existing IT environments to ensure smooth operation.

The team developed a credit assessment and pricing product that enables CIB branches and affiliated institutions to offer SMBs an online loan application service that can make decisions in less than a week. In Phase 1, the product uses a whitelist to identify high-quality candidates, and invites them to use the online credit service. The system then assesses the creditability of the SMB by analyzing various types of data. This data includes the bank's internal data, such as the business's and owner's financial standing; also, external data on business registration, branches and locations, management, investment, invoicing, tax, court notices and more (see Figure 2). The system then calculates risk-based interest rates and credit lines for the SMB, using the credit score and relevant business rules. After loan issuance, the model monitors the borrower's credit status and sends repayment reminders or warnings for potential default.

Figure 2. CIB FinTech's SMB Lending Solution Components



PBOC = People's Bank of China; SAIC = State Administration of Industry and Commerce; SMB = small and midsize business

Source: Adapted from CIB FinTech

CIB FinTech faced challenges in terms of the limited amount of training data and few variables that can be obtained from historic transactions. The team focused on optimizing the model to work with small samples, engineering derivative features, and tapping into external data sources. For example, it worked with various government departments for business registration, investment, tax, invoicing and court notices, and commercial rating services for SMB owners' personal credit score, social security payment and fraud incidents. Because the data from these sources tends to be sparse and "noisy" and to have weak attributes, the team allocated more time to data cleaning and aggregation than to the actual building and training of the model. About two-thirds of the project time was spent on data analysis, including structure conversion, dimension reduction, numeric calculation and feature engineering.

Evaluation of an SMB's credit and pricing model is done on a quarterly basis. Retraining is done every six to 12 months, depending on the availability of new data on users, investment assets and the model's outputs.

Results

The quality of the model is evaluated based on the actual default rate versus the predicted rate. The default rate predicted for all SMBs in the validation sample from 3Q16 is five times higher than that of the top 10% clientele, and the actual default rates match the same pattern.

CIB FinTech plans to further invest in refining the model in order to improve its credit assessment and grow the business. After accumulating enough data, and when the model is mature enough, the solution will rely less on whitelist filtering and the service will be extended to all SMB customers.

Lessons Learned

- Require team members to have a blend of knowledge and skills in financial services, business use-case analysis, algorithm research, modeling and implementation.
- Model planning, building and implementation is a multifaceted process. The AI team needs to actively engage with the process and collaborate with both business stakeholders and IT teams to ensure synergy in model development and deployment.
- Training data quality, the types of algorithms used and the availability of computing power can affect a model's development time, processing efficiency and overall performance. CIB FinTech continues to research, identify and experiment with new algorithms — such as autoencoder and deep learning — to improve model performance.
- Educate IT staff on basic AI model design principles and foundational knowledge of algorithms, to ease the integration of AI models with existing IT platforms and solutions.
- Work with government departments and ecosystem partners to gain access to valuable business data that impacts model performance.

Tequ Group Improves Livestock Productivity

Tequ Group specializes in husbandry, feed processing and production. Its digital ambition is to operate throughout the industry value chain — from feed production to breeding to food processing — with high levels of efficiency and productivity. Tequ started its “informationization” journey about 10 years ago and has been investing heavily in IT, including technical infrastructure, ERP and RFID technology for livestock. Tequ plans to automate the entire operational process and leverage the data insights to maximize production.

Challenges

Stock farming is a labor-intensive industry with lots of laborious manual operations. For example, workers have to weigh pigs frequently to track weight changes, and have difficulty counting the exact number of newborns among tens of thousands of pigs. Due to the lack of data, or poor data quality in many cases, decision making is often based on a worker's gut feeling, rather than facts. Tequ identified three areas that can be addressed by AI:

- Automating data collection through the pigs' lifetime in order to build a more comprehensive and accurate picture of the livestock
- Providing early warning of major events, such as epidemics, that could impact production capacity
- Automating operational processes based on a better understanding of pigs' health and living conditions

Approaches

Tequ partnered with Alibaba Cloud in 2016 to collaborate on research into the application of AI to pig breeding. They formed an AI team with eight dedicated agriculture experts from Tequ and 12 engineers from Alibaba Cloud. By leveraging AI, Tequ was able to:

- Leverage computer vision technology and infrared devices to automate the data collection process. It can now collect more accurate information about pigs' food intake, body temperature, exercise intensity/frequency and movement trail. This builds on the profile data that Tequ has amassed during the past decade, which includes each pig's breed, age and weight. This data is used to analyze each pig's characteristics, such as behavior, eating habits and feed-to-meat ratio. Tequ is able to trace every piece of meat back to the pig it came from.
- Combine acoustic recognition and infrared temperature measurement technologies to tell whether a pig is sick — by analyzing its coughs, snores and other sounds — and send early warnings of a potential epidemic. This is critical for detecting potential disease and preventing it from spreading.
- With the system having a better understanding of the condition of the livestock, prescribe more suitable amounts and combinations of feed, and instruct operational systems for feed placement, weight measuring, and temperature and humidity control.

Results

- Tequ's annual production capacity increased by three pigs per sow, piglet death rate declined by about 3%, and income increased by 10%.³
- Tequ measures the annual productivity of its sows by the number of live weaned piglets, an indicator of the efficiency of pig farms and of reproduction performance. For sows with reduced productivity, the system will give elimination advice in advance.

Due to the early success of the pig project, Tequ plans to expand the use of AI to cows, sheep, chickens and even fish — for breeding and monitoring. The company plans for annual feed sales to exceed 10 million tons, breeding of more than 10 million pigs, and annual poultry breeding of more than 250 million — all by 2020.

Lessons Learned

- The top management has a clear vision for and strong determination to pursue digital business transformation, and wants to bring disruption to traditional livestock farming and the agriculture industry. This ambition makes it easier to get funding and resources for the project.
- One challenge Tequ had is in the data collection stage. There is little specialized hardware, such as infrared and acoustic sensing devices, for agriculture, and the current cost is prohibitive for large-scale deployment. Tequ worked with its partner to purpose-build devices for the pig farm that can meet the project's requirements.

XCMG Optimizes Machinery Operation With Predictive Maintenance

Xuzhou Construction Machinery Group (XCMG) is a government-owned heavy equipment manufacturer with global operations. It engages in the research, development, manufacture, sale and servicing of construction machinery and spare parts. Since 2005, the company has made extensive investments in exploring the industrial internet, the Internet of Things (IoT) and big data technologies to improve operational efficiency and develop smart manufacturing capabilities. The AI team was formed in 2017. About 10 people were recruited, both internally and externally, including data scientists, big data engineers and business specialists.

Challenge

Historically, routine maintenance services are scheduled based on the equipment's cycle of operation; for example, inspecting the condition of the key parts every five hours of operation, or major maintenance every three or six months. XCMG recognizes its customers' need to continuously optimize equipment uptime and maximize operational efficiency. Detecting potential breakdowns before they happen, and performing maintenance, will be crucial to achieving that, which in turn helps contain repair costs and productivity losses.

Approaches

XCMG decided to develop predictive maintenance to help its customers improve their machinery operations and life cycle management. Over the years of investment in IT and operational technology (OT), XCMG collected an abundance of data on machinery, such as usage patterns, fault diagnosis and repair and maintenance histories. Following the deployment of its IoT platform, the company has continuous data feeds from control systems and IoT endpoints embedded in the machinery.

The team utilized IoT and big data platforms to collect, process and analyze key operational data on an ongoing basis. This included equipment parameters such as engine speed, hydraulic system pressure, and when and where a breakdown has occurred, as well as operational conditions such as air temperature and terrain conditions. Each machine requires different datasets for the model to deliver the best results. For example, the model for a computer numerical control (CNC) machine tool is most sensitive to noise, electric current and vibration. Due to the large amount of data from various systems — such as control systems, sensors, and industrial applications that employ

different data forms and include lots of noise — data cleaning is required. The team created purpose-built sensors optimized for data collection and monitoring, so that it can improve the real-time communication and completeness of the sensor signal. The team then developed models to detect individual equipment usage patterns, predict potential breakdowns and recommend maintenance service in order to optimize machine uptime and operational efficiency.

Results

After deploying the model, the utilization rate of a CNC machine's blade improved by 3% to 5% and the unit production cost was reduced by at least 3%.

Lessons Learned

- Be as specific as possible when describing the use case and what operational elements the AI model will optimize. Different machines often require different parameters to monitor their operational conditions. In this case, XCMG focused the AI model on CNC machine tools, rather than the entire product line.
- Work with the business to gain a deep understanding of equipment design, processing dynamics and critical factors that impact operational efficiency. Select a set of key parameters and operational data points to train the model.
- Establish a strong technology foundation. Invest in the network, storage and computing power required for model development and training.
- Develop fit-for-purpose solutions to improve data quality. In this case, XCMG developed special sensors to improve data collection and quality.
- High quality and rich datasets are the key to shortening development time. Equipped with a wealth of historical data and a broad spectrum of continuous data feeds from IoT systems, XCMG was able to build a model in six months.
- The upfront investment is often high for industrial AI applications, considering the costs associated with upgrading existing IT and OT infrastructure, hiring AI talent and, sometimes, even modifying the product designs. It's important to build a strong business case and define how to measure ROI.

Acronym Key and Glossary Terms

AI	artificial intelligence
CNC	computer numerical control
IoT	Internet of Things
NLP	natural-language processing
OT	operational technology
SMB	small and midsize business
VoC	voice of the customer

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

“How CIOs Can Analyze the Strategic Possibilities of AI”

“Driving an Effective AI Strategy”

“Artificial Intelligence Hype: Managing Business Leadership Expectations”

“How to Identify High-Value AI Use Cases in Digital Commerce”

“Cool Vendors in Digital Disruption and Innovation in China”

Evidence

¹ [“A Next Generation Artificial Intelligence Development Plan,”](#) China Copyright and Media.

² 2018 Gartner Artificial Intelligence Enterprise Perceptions, Plans and Implementation Study, which included 213 respondents from China:

- The results presented are based on the 2018 Gartner Artificial Intelligence Enterprise Perceptions, Plans & Implementation study. This was conducted online in January and February 2018 among 848 respondents in U.S. and Canada (n = 208), U.K. (n = 217), China (n = 213) and India (n = 210). All respondents were screened for active employment in organizations that are piloting or have deployed/are using at least one of the following AI technologies: natural language processing (NLP), computer vision, artificial intelligence, physical robots, process augmentation and decision augmentation.
- Respondents were also required to be at least of manager level, and to have knowledge of the AI budget for 2018. They were also required to have knowledge about adoption plans for AI

solutions. Also, depending on the AI technology mentioned, they had to have knowledge of its strategy, business objectives, business requirements, technology requirements, selection and/or use of providers, effectiveness/ROI measurement, operations management and/or solution design and implementation.

- At the country level, “soft” quotas were established to guarantee a good distribution in terms of the adoption of AI technologies, company size and industry. The results of this study are representative of the respondent base and not necessarily of the market as a whole. The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested and administered by Gartner’s Research Data and Analytics team.

³ [“Alibaba Launches AI-Backed Agricultural Tool to Boost Income for China’s Farmers,”](#) South China Morning Post.

Note 1 Case Studies

Each case study was written based on phone interviews conducted between June and July 2018 with the following people:

- Baozun — Shuliang Zheng, technology director, Innovation Lab
- China Eastern Airlines — Zhi Zhang, IT Solutions
- CIB FinTech — Qiang Chen, chief of Algorithm Financial Lab
- TeQu Group — Degeng Wang
- XC Manufacturing Group — Xiang Zhou, product director; Yi Zhang, director of Industrial Internet Research Department and Louis Chen, marketing director

More on This Topic

This is part of an in-depth collection of research. See the collection:

- AI Use Cases, Tales From the Trenches: A Gartner Trend Insight Report

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