Rohit Chauhan joined Mastercard (MC) in 2006 and, for most of his tenure, led the company’s data and analytics division. Its task was to help financial institutions that issued MC credit cards—and the merchants that accepted them—maximize the value of their relationship with MC. The division grew more than tenfold under Chauhan’s leadership. By that point, he was ready for a new challenge.

At the time, a task force within MC was grappling with the question of how the company could make better use of artificial intelligence (AI), defined as “a range of different technologies that use advanced analytical tools such as machine learning to simulate aspects of human thought. These aspects include learning, problem solving, communicating, and more.” MC relied heavily on AI to increase the efficiency of fraud detection, in particular, because AI could draw on billions of transactions and use algorithms to almost instantaneously determine the likelihood that an attempted purchase was by the true cardholder. It could also steadily improve the accuracy of its results based on accumulating data.

MC’s CEO, Ajay Banga, believed AI could be transformational—but only if it were integrated into the company’s work intelligently and intentionally. Chauhan shared his belief and compared AI’s potential in the late 2010s to that of the internet in the early 1990s:

A lot of companies sat there and asked the question, “Should we be on the web or should we just stay the way we are?” And if you stand where we are right now, it’s such a silly question. Will AI impact everything that we do? Yes, it will. And we need to embrace it and run with it rather than resist it.

One clear goal that emerged from the task force was that MC aimed to become an AI powerhouse. That was a stake in the ground right from the outset, Chauhan said. One
advantage the company had was that its products, like those of well-established AI giants Google, Facebook, and Amazon, were primarily digital. It processed transactions rather than created physical goods. “We just manage this massive network,” Chauhan said.

In 2018, when Chauhan accepted the invitation to become executive vice president of MC’s Artificial Intelligence, he faced a daunting challenge. It was clear that AI was a profoundly important tool for companies, and that MC was well-positioned to take advantage of its potential. But it was unclear what organizational structure would help it achieve its goal. MC used AI extensively to simplify the payment process and improve fraud detection—two of its primary objectives. But for MC to become a true powerhouse, Chauhan believed that AI needed to be integral to the work of every division. At the same time, he recognized that each division at MC had different needs when it came to the potential benefits of AI. As MC noted in a white paper, “Growth in AI tech has revealed as many stories of failure as those of success, demonstrating that not all AI solutions are created equal. Often, more cost effective and simpler solutions can drive similar outcomes.”

One option for building MC into a powerhouse was to centralize its AI expertise by creating a new division staffed with experts, who would advise and consult with other divisions on an as-needed basis. An alternative was to seed existing divisions with their own AI staff, which might create a more organic and productive relationship between AI experts and other staff. As the leader of MC’s push to become an AI powerhouse, Chauhan’s first task was to figure out which path would be most effective in helping MC pursue its mission—and how, exactly, new technologies should be integrated into the company’s overall work.

Overview of the Electronic Payment Processing Industry

Americans’ revolving debt, i.e., debts where payments are not a set amount each month but change depending on the monthly balance, was roughly $1 trillion in 2019. Most American revolving debt was on credit cards. The average debt per cardholder in the United States (excluding unused cards and store cards) was about $5,500. The average American had four credit cards.

Along with American Express (Amex) and Discover, Visa and MC dominated the industry. As of 2019, Visa and MC were the leading issuers of credit cards in the United States—issuing 335 million and 200 million cards, respectively. Several banks—Chase, Capital One, Citibank, and Bank of America—ranked third though sixth, respectively, issuing from 91.8 million cards to 54.6 million cards. Discover and Amex ranked seventh and eighth overall, issuing 51.4 million cards and 47.5 million cards, respectively.

MC and Visa did not extend credit or issue their own cards. Instead, they issued cards through partner financial institutions like banks and credit unions. Those institutions issued cards for individual or business use, sometimes in partnership with airlines, hotels, and other companies. Amex and Discover, which did issue their own cards, also pursued such partnerships. The issuing bank was responsible for setting interest rates, supporting rewards programs, and offering perks like car rental insurance.
MC and Visa had control over how to structure their fees. Both companies’ revenues derived from the service and data processing fees they charged to the card issuers. Visa generated nearly $2 trillion in purchase volume in the United States in 2018, compared with $811 billion for MC, $778 billion for American Express, and $139 billion for Discover (see Exhibit 1). Operating revenue and operating income for MC in 2018 were $18.48 billion and $8.37 billion, respectively. For Visa, they were $25.16 billion and $13.56 billion (see Exhibit 2).

Mastercard’s History and Emerging Challenges

MC, headquartered in Purchase, NY, had roughly 14,800 employees in 2018. Its mission was to connect “consumers, financial institutions, merchants, governments, digital partners, businesses, and other organizations worldwide, enabling them to use electronic forms of payment instead of cash and check” (see Exhibit 3). Its organizational structure distributed executive authority among several divisions—including commercial products, strategic growth, digital solutions, and consumer products and processing—and global regions, including Latin America and Caribbean, Asia Pacific, Middle East and Africa, Europe, and North America (see Exhibit 4).

Its origins dated to 1966, when a group of California-based banks formed the Interbank Card Association (ICA) and issued a credit card. Three years later, ICA acquired the MasterCharge trademark. In 1974, MasterCharge introduced the magnetic stripe on all its cards to reduce fraud and authorization time. Prior to the stripe’s invention, merchants would copy a card’s number to a piece of paper with a device, then take the paper to the bank to verify that the account was not fraudulent. Those steps might take days. Magnetic stripes dramatically sped up the process because the data contained on them could be quickly and easily decoded by machines.

In 1979, MasterCharge changed its name to Mastercard. In 1983, it introduced a laser hologram on cards to reduce fraud, and the following year it introduced a packet-switching network that enabled MC affiliates worldwide to authorize transactions. In 2003, the number of consumers using credit or debit cards for in-store purchases exceeded, for the first time, those who used cash. In 2006, MC began trading on the New York Stock Exchange; its price per share rose from $3.90 at the initial public offering to the $300 range in the summer of 2020 (see Exhibit 5).

In addition to its traditional competitors—Visa, Discover, and Amex—MC faced increasing challenges from the emerging “fintech” sector, which referred to the integration of technology with financial services, often by startups. The most valuable private, venture-backed fintech in 2018 and 2019 was Stripe, founded in 2010 and valued at $35 billion in 2019. It was a payment processing service that allowed businesses to accept online payments. In addition to being a competitor, Stripe was also a collaborator with MC, which used Stripe’s fraud-detection technology in its AI. MC’s executive vice president of digital partnerships for North America, Sherri Haymond, noted that Stripe’s “direct connectivity to Mastercard not only allows us to bring innovative payment technology to market faster but also builds an
environment of connected intelligence that reduces fraud on suspect transactions and increases approval rates on valid ones.”

**Promise and Challenges of AI for the Electronic Payments Industry**

As the partnership with Stripe suggested, MC’s initiatives to reduce “false declines” (or cases of a purchase being wrongly rejected) were its most prominent and robust application of AI. Such rejections were frustrating and embarrassing for consumers; in 2018, a publication ran an article about celebrities whose cards had been declined, including Barack Obama and the singer Adele. “If you’ve ever had a credit card declined in public, you know it’s mortifying,” the article noted. As a result, false declines were also costly for businesses. According to MC in 2016, the value of false declines was $118 billion—or more than 13 times the total amount lost annually to actual credit card fraud.

Throughout the early and mid-2010s, MC introduced several initiatives that used AI to simplify the payment process, increase security, and improve fraud-detection capacities. For example, in 2014 MC (along with Visa and Amex) partnered with Apple to incorporate a mobile wallet feature, Apple Pay, into new iPhone models and the Apple Watch. When customers added a credit or debit card, Apple Pay assigned it a device account number rather than storing actual credit card numbers. Each purchase through Apple Pay was then assigned a unique approval number and security code. The system increased efficiency and enhanced security by eliminating the need for customers to submit their credit card (and potentially expose the expiration date and security code) at partnering retail stores and restaurants.

In 2016, MC introduced the MasterCard IQ series, which it described as “the latest tier in the company’s multi-layered approach to tackling safety and security” (see Exhibit 6). Also in 2016, MC introduced Decision Intelligence, which was “the first use of AI being implemented on a global scale directly on the MC network.” According to MC, “current decision-scoring products are focused primarily on risk assessment, working [with] predefined rules.” Decision Intelligence took “a radical new approach that goes much further,” leveraging account information “like customer value segmentation, risk profiling, location, merchant, device data, time of day, and purchase made” to decrease false declines (see Exhibit 7).

Such efforts used algorithms that weighed up to 500 different risk factors in the authorization process. But, despite their sophistication, the algorithms sometimes made the wrong call. According to a 2015 survey of adults, 39% said that every fraud alert they received was in error. The same survey showed that the majority of people receiving a fraud alert were relatively affluent; that is, 53% had an annual household income of more than $75,000. The problem of false declines took on particular urgency as online shopping increased. According to the 2017 Global Fraud Survey, the average online store declined 2.6% of all incoming orders; it declined 3.1% of all orders valued over $100.

MC’s competitors were similarly aggressive about using AI. A 2017 Harvard Business Review essay, for example, singled out Amex (along with Proctor and Gamble) for its adept integration of AI technologies. Both companies, it noted, “have long been known for their talent...
management approaches, and their work with analysts and data scientists is no exception. American Express has built up an organization of 1,500 data scientists (primarily in India and the United States), a growing number of whom are undertaking AI initiatives. Meantime, Visa initiated an Advanced Authorization Program—a comprehensive risk management tool that monitors and evaluates transaction authorizations on the Visa global payment network—that reduced fraud by roughly $25 billion annually, according to company estimates. The system processed 127 billion transactions in 2018 and “employed AI to analyze 100% of the transactions—each in about one millisecond.” In 2019, Visa’s executive vice president of technology, Rajat Taneja, wrote that “we are at a critical inflection point in the evolution of AI,” and that “predicting and preventing fraud” was just the beginning of its potential uses. For example, “our operations team is using machine learning models to predict disruptions in our hardware and software systems, giving our engineers the insights they need to fix bugs in the network before they impact our ability to process payments.”

As Taneja noted, AI’s potential went far beyond just reducing false declines. In a white paper focused on AI best practices in the banking sector, MC identified four areas where “AI can generate the greatest value”—customer acquisition, portfolio optimization, risk and fraud management, and customer servicing (see Exhibit 8). It noted that financial institutions often failed to integrate AI “efficiently and effectively” for several reasons. One was the challenge of “data quality and governance,” because “data is often siloed between departments and inconsistent in quality,” and the results were only as reliable as the inputs. Second, there was a talent and staffing problem, because “demand for qualified data scientists is far greater than supply, spurring fierce competition among companies to attract the right people.” Third, developing effective AI solutions imposed heavy up-front costs—both in terms of time and money—and the investments likely would not pay off without a long-term plan and commitment. Finally, errors and human biases that were sometimes embedded in the data posed a variety of problems. The report noted, for example, that Microsoft and Google had “discovered instances of racial and gender-based bias in their machine learning tech,” and when those biases crept into the work of financial institutions, they “could have major impacts on customers’ financial futures and may result in regulatory trouble.” The problem was compounded by the fact that the algorithms used by AI were “widely regarded as ‘black boxes’” and hidden from public scrutiny or accountability.

What Is an AI Powerhouse?

In 2018, when Chauhan was deciding whether to accept the task of leading MC toward becoming an AI powerhouse, he asked a friend who oversaw AI initiatives for a large consulting company to have lunch. “I had only two questions to ask him,” Chauhan said. The first was, “If a company is an AI powerhouse, what does the deployment of AI look like?” And his answer was that for a company to be an AI powerhouse, it has to be deployed in every part of the company. It cannot be just in the places where AI usually ends up.
You know, there are places where it naturally kind of incubates and grows. But for a company to be an AI powerhouse, it has to be in every function. It has to be in audit; it has to be in compliance; it has to be in finance; it has to be in HR. You name it. Everything has to have AI. Otherwise, it will never become an AI powerhouse. So there was clarity.

The second question Chauhan asked was, if AI were fully integrated throughout the company, how would he decide which “use cases” to pursue—that is, which opportunities for developing AI solutions (often identified by staff) were worth MC’s time and most likely to pay dividends? “Because once you open the spigot there will be” a flood of projects demanding attention, Chauhan said. “Anything that they couldn’t ever get done, suddenly people think AI is going to solve it.”

His friend responded with something that was “absolutely brilliant,” according to Chauhan. He said, “I want you to focus on the 15 to 20 most critical tasks within Mastercard.” And these might be really unsexy things, such as how do I do financial forecasts? These are functions that are being done manually—maybe very elegantly, maybe not very elegantly. But without this function, Mastercard would not exist; Mastercard cannot operate.

How do I optimize the relationship with the customer? Thousands of résumés come in; how do you use the résumé to figure out and align them for jobs? You have 15,000 people internally; how do you figure out which are the people that have a lot of potential and should be given special training, coaching—whatever the case may be. How do you audit in a more efficient way? How do you do compliance? All of these are core capacities that allow the different elements of Mastercard to work together seamlessly and profitably.

Chauhan noted that Amazon’s use of AI during the checkout and payment process stood out for him as a model of efficiency and effectiveness. For example, when he once bought a generator for roughly $1,000, the Amazon bot recommended a dust cover for about $29 that (it said) most people bought with the generator. Chauhan said:

For Amazon to be effective, they have to give that recommendation before the transaction is complete. Getting the right recommendation is the easy part. I mean, you take all the historical data, and it’s not rocket science to come up with a recommendation. But to be able to put it at the point where it actually matters most makes all the difference.

**MC’s Internal Debates over Where to Locate AI Expertise**

Prior to 2018, the vast majority of MC’s AI initiatives were concentrated in the Cyber and Intelligence (C&I) division. It focused primarily on fraud detection and prevention, developing initiatives like Decision Intelligence. But the concentration of AI expertise within one division of MC ran counter to Chauhan’s philosophy for building MC into an AI powerhouse.
powerhouse. He compared integrating AI fully into business culture in the early twenty-first century with the widespread adoption of electricity in factories in the early twentieth century. “It’s a massive shift in how work is going to get done,” he said. “A major cultural change has to take place.”

Yet there were relatively few good examples to learn from. A 2019 analysis in the Harvard Business Review found that “despite the promise of AI, many organizations’ efforts with it are falling short.” Based on a survey of thousands of executives, the authors concluded that just 8% of firms “engage in core practices that support widespread adoption,” and “most firms have run only ad hoc pilots or are applying AI in just a single business process.” The challenge, they noted, wasn’t a lack of expertise but “a failure to rewire the organization. In . . . surveys, . . . [they saw] that AI initiatives face formidable cultural and organizational barriers. But . . . [they have] also seen that leaders who at the outset take steps to break down those barriers can effectively capture AI’s opportunities.”

Chauhan’s mandate was to launch the initiative and, without a surefire strategy for success, learn how to break down those barriers. “The journey has to start,” he said. Chauhan noted that the case of Amazon was, once again, instructive. At one level, “it’s just a retail store. Anybody can create a catalog system and then wire it into a logistics company that can ship stuff out. But can another Amazon be created? The answer is, No. Because the sooner you start the journey, the more learning you have that can only come from taking the journey.”

Broadly, Chauhan had two options for integrating AI more fully into MC’s organizational structure. One was to create a separate division staffed with AI experts. Staff and executives would funnel their “use cases” through that division, and experts would be assigned from the AI division to work with staff in the appropriate division on an as-needed basis. The second option was to seed each division with its own AI experts—essentially broadening out the model that MC already used in its C&I division and making that the norm company-wide.

Seeding the various divisions with AI staff seemed to fulfill the goal of integrating AI fully into MC’s organizational structure, because there would actually be an AI presence in each division. The decentralized approach had the advantage of positioning expertise close to the work and to the challenges that AI could help solve. By contrast, “somebody sitting in Purchase, New York, is not on the ground in all of these places, where people are kind of afraid of the technology,” Chauhan said. “They don’t even know what it is exactly and what [it] might do.”

But in the task force meetings held to discuss the integration of AI—which consisted of leadership from several divisions, including finance, technology, data, and C&I—several other competing questions, priorities, and concerns emerged.

One was the issue of staffing. Because MC needed to hire the best talent available—and because AI experts were in relatively short supply—it was critical to offer attractive opportunities for advancement. Would being part of a potentially small division—versus a
well-resourced, centralized AI division—offer sufficient opportunities for career development and promotion to attract the talent that an AI powerhouse needed?

Second, because ethical issues were a major concern and potential pitfall, as the MC white paper on AI observed, would centralizing authority over AI be more prudent than distributing the authority across several divisions? And if the authority were fragmented, how would MC establish and enforce policies governing the ethical use of AI? “We were very concerned that everybody is going to implement whatever they want,” Chauhan said. “And that we might not have the kind of cohesive standards that we wanted to implement.”

Third, there were territorial issues to take into account. One goal of “rewiring” the organization to integrate AI was to foster synergies both within and between divisions. Would centralizing AI expertise create barriers between those experts and their colleagues across divisions? As Chauhan said, if staff in other divisions “started feeling threatened for any reason, they could just delay the project, so that before we even know it, the project would be over. Because they can spin a story and not provide us critical information. So, we would have to make sure that people didn’t feel threatened.” Seeding the divisions with AI experts would help solve that problem—but it might be less conducive to the kind of cross-divisional pollination that MC hoped to achieve with AI.

Challenges for Harmonizing MC’s Organizational Structure

Three specific challenges followed from these broader questions.

First, who should have the authority to decide which use cases to pursue—AI experts, divisional leadership, or some combination? AI experts would likely have a better sense of which projects were most technically feasible and cost-effective; on the other hand, divisional executives were better positioned to assess which projects would have the most impact on MC’s ability to pursue its mission effectively. Although Chauhan knew that he wanted to focus on 15 to 20 core, critical functions within the company, there would likely be more use cases targeting those functions than the AI experts could feasibly implement. Which executive(s) should decide which ones got the green light—for example, would Chauhan have the ultimate authority, or would the authority be invested in a committee consisting of executives across some of the company’s divisions, as well as AI experts? And would the answer to that question affect the model MC should choose for integrating AI?

Second, was it a high priority to educate the broader staff about the fundamentals of AI? That is, because MC’s integration of new technologies depended in part on use cases that flowed from staff, would it be wise to invest in educating them about AI best practices? One model was AirBnB’s Data University, which consisted of 55 volunteers within the company who taught courses on the basics of data-informed decision making. As of 2018, they had offered 400 courses, and there were roughly 6,000 course registrations among AirBnB’s more than 4,000 employees. “When business partners can answer their own questions using basic SQL [Structured Query Language] queries and dashboards, it frees up significant time for data scientists to work on higher impact projects,” according to an AirBnB data scientist.27 If MC
pursued something similar, should that process be formalized and integrated into the organizational structure? And would one organizational structure—centralized expertise or dispersed, divisional expertise—lend itself better to the project of educating MC staff?

Finally, the heavy concentration of AI in the C&I division raised the question of how its experts would relate to the new organizational structure. If MC chose the path of centralization, for example, would their work be considered the highest priority, since it was traditionally so important to MC’s mission and profitability? Or would that work be considered an equal among many competing interests? And would the division’s priorities be formalized and reflected, for example, in the budgets for different kinds of projects? Alternatively, if MC chose an approach that seeded each division with AI experts, would the budget allocation for AI teams be equal across all divisions, or would priority be given to AI teams in divisions that were deemed most vital to MC’s overall success?

Decision Point

MC set the bar very high in 2018 when it decided to become more intentional about its AI initiatives. Simply deploying more AI wasn’t enough. It wanted to become a new AI powerhouse. With a sense of urgency about starting the journey, and with a clear focus on a limited set of fundamentals, Rohit Chauhan faced a decision point. To achieve its goal and succeed where many companies had fallen short, MC needed to undergo a cultural change. But which organizational structure would serve best to achieve that change and maximize AI’s potential—a decentralized approach, in which expertise and authority were dispersed across divisions; or a centralized approach, in which AI experts were assigned to collaborate with colleagues from other divisions on a project-by-project basis?
Exhibit 1
Mastercard, Visa, Amex, and Discover Annual Purchase Volume, 2006–18

<table>
<thead>
<tr>
<th>Year</th>
<th>Visa</th>
<th>Mastercard</th>
<th>American Express</th>
<th>Discover</th>
<th>Total Purchase Volume (In Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>$1,956</td>
<td>$811</td>
<td>$778</td>
<td>$139</td>
<td>$3,684</td>
</tr>
<tr>
<td>2017</td>
<td>$1,777</td>
<td>$743</td>
<td>$708</td>
<td>$129</td>
<td>$3,357</td>
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<tr>
<td>2016</td>
<td>$1,549</td>
<td>$693</td>
<td>$700</td>
<td>$121</td>
<td>$3,064</td>
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<tr>
<td>2015</td>
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<tr>
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</tr>
<tr>
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</tr>
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<td>$509</td>
<td>$407</td>
<td>$86</td>
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</tr>
</tbody>
</table>

Exhibit 2

Mastercard, Visa, Amex, and Discover Annual Operating Revenue and Operating Income, 2008–20

Exhibit 3
Mastercard’s Core Products

Our Products and Services

We provide a wide variety of integrated products and services that support payment products that customers can offer to their account holders. These offerings facilitate transactions on our core network among account holders, merchants, financial institutions, businesses, governments and other organizations in markets globally.

Core Products

Consumer Credit. We offer a number of programs that enable issuers to provide consumers with credit that allow them to defer payment. These programs are designed to meet the needs of our customers around the world and address standard, premium and affluent consumer segments.

Consumer Debit. We support a range of payment products and solutions that allow our customers to provide consumers with convenient access to funds in deposit and other accounts. Our debit and deposit access programs can be used to make purchases and to obtain cash in bank branches, at ATMs and, in some cases, at the point of sale. Our branded debit programs consist of Mastercard (including standard, premium and affluent offerings), Maestro (the only PIN-based solution that operates globally) and Cirrus (our primary global cash access solution).

Prepaid. Prepaid accounts are a type of electronic payment that enables consumers to pay in advance whether or not they previously have had a bank account or a credit history. These accounts can be tailored to meet specific program, customer or consumer needs, such as paying bills, sending person-to-person payments or withdrawing cash from an ATM. Our focus ranges from digital accounts (such as fintech and peer-to-peer payment solutions) to business programs such as employee payroll, health savings accounts and solutions for small business owners. Our prepaid programs also offer opportunities in the private and public sector to drive financial inclusion of previously unbanked individuals through social security payments, unemployment benefits and salary cards.

We also provide prepaid program management services, primarily outside of the United States, that provide processing and end-to-end services on behalf of issuers or distributor partners such as airlines, foreign exchange bureaus and travel agents.

Commercial. We offer commercial payment products and solutions that help large corporations, midsize companies, small businesses and government entities. Our solutions streamline procurement and payment processes, manage information and expenses (such as travel and entertainment) and reduce administrative costs. Our card offerings include travel, small business (debit and credit), purchasing and fleet cards. Our SmartData platform provides expense management and reporting capabilities. Our Mastercard InControl™ platform generates virtual account numbers which provide businesses with enhanced controls, more security and better data.

Source: Mastercard, Inc., Form 10-K, December 31, 2019,
Exhibit 4 Update chart to December 1, 2020
Mastercard, Visa, Discover, and Amex Share Prices, 2008–20

Exhibit 5
Decision Intelligence Infographic

Consumers experience more friction being falsely declined than actual fraud—leading to lost customers and lower wallet share for Issuers.

When consumers experience a false decline:

- $443B
- Losses due to false declines will grow to $443 billion by 2021
- 89% switched financial institutions
- 51% used another card

Moving from static fraud detection to an optimized decisioning strategy will help Issuers make smarter authorization decisions.

Mastercard Decision Intelligence leverages the power of proprietary data, unique models and machine learning combined with Mastercard’s global insights, analytics and support.

Exhibit 5 (cont.)
Decision Intelligence Infographic

Decision Intelligence (DI)
- Transaction scores generated and delivered in real-time
- Decisioning fine-tuned to approve more genuine transactions
- Insights across three spending dimensions: overall, by channel, and by transaction type

A powerful 4-in-1 solution delivers real-time decision scoring, unique cardholder and transaction-level insights, and the tools to leverage both.

- **Decision Intelligence Score (DI)**
  - Applies world-class AI Technologies and unique network insights to recognize genuine transactions, resulting in higher approval rates while reducing fraud and false positives. (Decision Scores range from 001 (High Approval) to 999 (Low Approval))

- **Authorization IQ (AuthIQ)**
  - Network-based segmentation helps issuers make more informed authorization decisions, providing insights across three cardholder spending dimensions: overall spend, by channel, and by transaction type.

- **Digital Transaction Insights (DTI)**
  - Leverages authentication risk insights, merchant-consumer relationship insights, and EMV 3DS data to deliver valuable pre-authorization information in real-time on card-not-present transactions. (Available for EMV 3DS Secure Transactions only)*

- **The Fraud Center (TFC)**
  - Enables the power of Decision Intelligence through a hosted web portal providing rules capabilities and case management to support issuer fraud management operations.

Enhance consumer experience and drive greater profits with actionable insights.

- **Higher Revenue**
  - **Approve more genuine transactions without increasing risk exposure.**
  - **Gain share of wallet** by becoming the go-to payment choice for online shopping.

- **Lower Costs**
  - **Decrease customer service costs** due to more approved transactions.
  - **Retain revenue** formerly lost to fraud and chargebacks.
  - **Improve productivity** and operational efficiency.

- **Greater Loyalty**
  - **Reduce cardholder inconvenience** from erroneous declines.
  - **Increase cardholder satisfaction** by approving more transactions.
  - **Deepen consumer relationships** through a more consistent, seamless shopping experience across all channels.

- **Easy Implementation**
  - **Simplify decisioning** with a single transaction score using Mastercard’s established platform.
  - **Easily integrate** decision score into issuer authorization decision and cardholder strategies.

*Use subject to PCI Data Security Standards

For more information on Decision Intelligence, please contact your Mastercard representative.

**Source:** Company sales document designed to describe how Decision Intelligence helps issuers approve more transactions through smarter authorization decisioning.
Endnotes


2 This and all other quotes from Rohit Chauhan are from an interview on June 17, 2020, conducted by case study authors by video conference.

3 Mastercard, “Artificial Intelligence in Banking.”


11 Frellick, “Credit Card Magnetic Stripe.”


20 Crouch, “Fraud Alert False Alarms.”
25 Mastercard, “Artificial Intelligence in Banking.”