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REPORT

Reimagining the ATM

From Cash-out to Curbside Banking

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With so many options for ATM service delivery, how can credit union leaders make wise decisions to meet their members' needs? Set against the backdrop of rapidly changing consumer behavior and expectations during COVID-19, this report explores the past, present, and future of the unpretentious automatic teller machine—and how its evolution impacts credit union strategy today.

MEET THE AUTHORS

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Introduction

As our financial lives increasingly take up residence online, the ATM may be one of the last physical touchpoints between credit unions and their members. This creates a key opportunity for credit unions to delight members, provide convenience, and create a consistent brand experience across channels. But ATMs can also be an institutional pain point. As physical machines in dispersed locations, they require ongoing maintenance, upgrades, and replacement. Because ATMs touch nearly every part of a credit union's operations, it can be difficult to view the full impact of an aging fleet, a new strategy, or a potential partnership. Faced with this mix of obstacle and opportunity, how can credit union leaders make the best decisions for their organizations?

What Is the Research About?

In the wake of the social and economic changes wrought by COVID-19, ATMs have become an essential way for credit unions to provide members access to cash, deposits, and assistance. Tracing the history of the ATM from early twentieth-century agricultural shows to our pandemic-constrained present reveals a technology that is both deep-rooted and innovative. While ATMs may not seem particularly groundbreaking, they have extended the reach of most financial institutions far beyond their branches—and they may provide a blueprint for how credit unions can rethink those branches entirely. We spoke to leaders from credit unions and supporting organizations about their ATM experiences, challenges, successes, and strategies and drew from those insights to offer recommendations and a roadmap for success.

What Are the Credit Union Implications?

ATMs are one piece of a member's full experience with the credit union and should be viewed in that context. Serving as a billboard, a marketing opportunity, and (hopefully) a positive interaction between member and institution, an ATM transaction can leave the member feeling satisfied, or frustrated by a machine that is laggy, limited, or out of service. Credit unions have a variety of options for offering ATM services to members, from owning and servicing their own machines, to partnering with a third-party provider, to joining a shared network, and some organizations may choose several of these. Because any approach will have benefits and drawbacks, each organization must define what success will look like before pursuing a new ATM strategy.

Finally, credit unions should beware of chasing after shiny technology and instead seek to understand their members' unique needs and preferences in order to design a compatible and accessible ATM experience. But there is plenty of emerging technology to get excited about: contactless payments may render the plastic ATM card extraneous, and open-source software could simplify future upgrades. Making decisions about ATMs may never be easy, but given the variety of available choices, credit union leaders can and should find opportunities to generate value for their members.

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CHAPTER 1

Introduction

In the wake of the 2008 financial crisis, former Federal Reserve Chair Paul Volcker observed that “the most important innovation I’ve seen in 20 years is the automatic teller machine.”[1] Volcker was criticizing the banking industry for what he viewed as a failure to focus on the needs of individuals, but his assessment of the ATM as both inventive and useful was accurate. The original form of digital banking, the ATM is as cutting edge as it is conventional. Consumers today take for granted that they will have access to cash (and perhaps also deposits and balance inquiries) 24 hours a day, in a variety of convenient locations, many of which may be miles from the closest branch. ATMs allow travelers to access their financial accounts overseas, waitstaff to deposit a night’s tips, and shoppers at farmers’ markets to pay for fresh local produce. Despite the oft-bewailed death of cash, ATMs remain ubiquitous—and for many unbanked and underbanked households, essential.

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For financial institutions, on the other hand, ATMs can cause a lot of headaches. Maintaining and upgrading them is expensive; they depreciate and age; and since users are seeking convenience, any downtime reflects badly on the ATM provider. Security is paramount. Balancing cash stocks can be tricky during periods of shifting consumer behavior. And as people increasingly move away from the branch and toward online banking, the ATM is often the last physical point of contact between the institution and a customer or member, placing a lot of pressure on that interaction to be a positive one. For many credit unions, implementing an ATM strategy and troubleshooting problems that arise with the machines are ongoing challenges. Outsourcing ownership and maintenance to third-party vendors can be an effective choice for some organizations, but it brings its own set of complications. Since ATMs touch on nearly every facet of a credit union's operations, there seems to be no way to avoid tackling the question of how to efficiently provide members with cash where and when they want it.

For this report, the authors interviewed credit union leaders and representatives from third-party ATM providers, a nationwide ATM network, and a global payments company during the fall of 2020. During each of the individual interviews, we discussed ATM challenges, successes, cautionary tales, and advice for credit unions moving forward. We also explored ideas about what the ATM of the future will look like and how the COVID-19 crisis is changing the way that consumers interact with their credit unions. The report contains key insights from those conversations.

At this nexus of promise and predicament, there are no one-size-fits-all solutions. But by exploring the questions that routinely stymie credit union leaders, it is possible to create a roadmap for ATM strategy moving forward. This report will enable leaders to weigh the trade-offs between ease and flexibility, develop stronger partnerships, more accurately diagnose the problems they are asking ATMs to solve, employ the machine as a marketing tool, and incorporate ATMs as one element of a seamless, omnichannel delivery method. With the right planning and implementation, ATMs can serve as a comforting reminder to members of the friendly, empathetic service that distinguishes credit unions from their competition.

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Teller Machines for a Post-COVID Future

ATMs have long played a central role in making financial services accessible to consumers outside of bank hours and in convenient locations. But suddenly, beginning in March 2020, ATMs (along with drive-through tellers) were the *only* way many Americans could access their credit unions. "The ATM was . . . the star of the show when COVID happened," says Erin Kolb, senior director of Visa's global ATM network. Because many ATMs are located in essential businesses like grocery stores, Kolb notes, "the ATM became a really critical way for banks to deliver financial services and for government benefits." With lobbies closed or operating with reduced hours, many banks and credit unions increased their ATM transaction limits during the pandemic, she says, and saw higher traffic at ATMs and drive-throughs.

"The ATM became a really critical way [during COVID-19] for banks to deliver financial services and for government benefits." —ERIN KOLB, SENIOR DIRECTOR GLOBAL ATM NETWORK, VISA

Some credit unions, on the other hand, noticed less ATM activity. As soon as stay-at-home orders went into effect, says Richard Paige, director of marketing and product development at Vantage West, the credit union raised ATM limits, "so that people could do more at the ATM." However, leaders were surprised to find that "every single type of transaction that was previously happening at an ATM fell off precipitously . . . with the exception of one type of transaction . . . deposits." At the same time, Paige notes, unique members served at retail branches was down only about 25% year over year. As of October 2020, he says, ATM activity was still significantly lower than pre-COVID numbers, and deposits were still higher. "That, I think, was a little bit instructional," Paige says, because "unless [members are] depositing cash, they can do it on their phone."

While Vantage West members shied away from ATMs, notes Chief Member Experience Officer Danielle Bridges, they moved their banking activity online, exposing the limitations of the organization's digital banking platform. "Our NPS scores are starting to take a dive," she explains, referring to a key member experience metric, "as we believe our members grow weary with the modifications from the pandemic . . . as well as the limited access to branches and longer hold times." Hold times are up, she notes, because "our call volumes remain . . . 20 to 40% above pre-pandemic levels." The organization is working hard to allocate resources, protect its bottom line, and manage staffing, she says, but "it's been a struggle to get the resources in the right place in a quick time frame." The longer-term impacts of COVID are uncertain, says Paige, noting that forbearances are currently masking potential delinquencies and losses, and "everyone's kind of on pins and needles right now."

What remains to be seen is how the changes sparked by the pandemic will translate into permanent changes in member behavior. "The moment that you move [members] into a machine, then you've lost them," predicts Bernardo Batiz-Lazo, professor of fintech history and global trade at Northumbria University, Newcastle, in our conversation with him. "They're not going back to the branch." Will shifts in consumer behavior continue beyond a widely distributed COVID vaccine and a gradual reemergence of people into society? The relationship between humans and machines has already been evolving rapidly over the past decade. "Digital transformation is here with a vengeance," says Scott Mainwaring of the University of California, Irvine, "whether we like it or not." Noting that users have come to view virtual assistants such as Siri and Alexa as intimate companions and even family members, Mainwaring sees an opportunity for credit unions to leverage their "natural empathic tendencies . . . as members are confronted with a range of technological mediations."[2] If credit unions can use technology to humanize digital service delivery, he says, they have the opportunity to not merely stay relevant but even create new ethical norms for data collection and usage, the dark underbelly of the Internet of Things.

However, consumer expectations have also been shifting. Credit unions may find that in a post-COVID world, members demand curbside service, fast and flexible online and mobile platforms, and a seamless transition between delivery channels. Delivering these while simultaneously navigating the economic impacts of the pandemic will be deeply challenging. "I get the struggle that the credit unions are having," says Paul Wilmore, CMO of Cardtronics, which is why he encourages credit unions to focus on "utilizing a common infrastructure but yet creating a personal experience. I think in the long run," he says, "that model wins." It is tempting, midpandemic, to make predictions about what awaits us when normal activities become safe again. But before we can predict the future of the ATM, it may be instructive to explore its remarkable past.

Paul Wilmore, CMO of Cardtronics, encourages credit unions to focus on "utilizing a common infrastructure but yet creating a personal experience. I think in the long run that model wins."

History of the ATM

"You can go back to the 1930s, if not before, in looking to alternatives to the branch as a way to distribute financial services," explains Batiz-Lazo. During the 1930s and 1940s, he notes, rural banks and credit unions in the United States would show up at agricultural shows with "the bank on the back of a truck," hoping to attract new business from farmers. In the 1950s and 1960s, consumers embraced the trend of self-service—pumping their own gas and buying their own bus tickets—and the moment seemed ripe for financial services, too, to become a little more do-it-yourself. As the volume of personal checks increased and the average amount per check dropped, banks began to seek alternatives to the branch for delivering financial services. And as rising labor costs met consumer demand for longer banking hours, the inevitable result was a machine that could dispense cash, no teller required.[3]

The first automated teller machines emerged in Europe in the late 1960s. Although a number of companies and individuals are credited with inventing the ATM, its origins are more diffuse than a single eureka moment. Several teams concurrently managed to produce functional cash machines, rolling out three in 1967: the Barclays–De La Rue and Chubb MD2 in the United Kingdom and the Bankomat in Sweden.[4] The earliest ATMs required a token, issued by the bank, which authorized the user to withdraw a set amount of cash, and was sometimes mailed back to the customer for the next withdrawal. This was a clunky process, and even as the token was replaced first by a disposable plastic card and then by one with a magnetic stripe, it took several decades for ATMs to become popular with consumers.[5]

As the 1970s dawned, a push for the financial inclusion of working-class and lower-middle-class people in the United States—and the desire of financial institutions to grow their markets beyond the high end of the income distribution—led to many consumers opening checking accounts for the first time. Wages were increasingly being paid directly to employees' accounts, rather than in cash or check, and banks slowly began to adopt ATMs, largely made by Docutel and Diebold.[6] Banks themselves stood to gain customers and brand awareness through ATMs, cultivating a sense of belonging to the bank as a whole, rather than a single branch.[7]

As the 1970s dawned, wages were increasingly being paid directly to employees' accounts, rather than in cash or check, and banks slowly began to adopt ATMs.

A series of technological and networking challenges initially hindered the ATM's widespread proliferation. To start, there were major security issues: it was impossible to ensure that the person receiving cash was the holder of the account it was drawn from, and reconciling account balances was a slow process that left ample room for fraud and overdraft. Exposed to the elements, machines broke down frequently, making them unreliable and unpopular. There was little standardization in terms of networking, encryption, or hardware, which further slowed repairs and upgrades.[8]

It was IBM, the vanguard of ATM development throughout the 1970s, that pioneered the network allowing banks and ATMs to share information quickly and securely through dedicated phone lines.[9] As hardware and networks increasingly standardized, IBM machines were the gold standard—until, suddenly, they weren't.[10] In 1983, IBM rolled out a sophisticated new family of models, including the IBM 4730,[11] which according to the company "accepted check deposits without slips, dispensed exact change to the penny, cashed paychecks, adjusted account balances on the spot and provided a printed record of every transaction," and its siblings, the 4731 and 4736.[12] The problem was that the machines and their software were totally incompatible with previous models, including the popular IBM 3624. Banks, faced with the prospect of having to replace their entire fleet of ATMs, not to mention upgrading their software and shared cashpoint networks, refused to buy. Eventually, IBM abandoned payment hardware entirely, and new players like Diebold and NCR rushed into the market.[13]

Running on software that was modeled after the IBM 3624, machines created by NCR were sleeker, customer friendly, and multifunctional, setting the stage for modern ATMs. Diebold partnered with IBM for the better part of a decade to pair Diebold's self-service technology with IBM's network, but the partnership led to disappointing returns for both companies and was eventually dissolved.[14] Despite NCR's and Diebold's dominance, a variety of other companies such as Honeywell, Fujitsu, GRG, and Hyosung also moved to introduce their own ATMs. In Europe, banks tended to favor proprietary ATM networks, while in the United States, shared networks were more common.[15] A US Supreme Court ruling in 1984 determined that ATMs were not subject to laws restricting the geographic concentration of bank branches, and thus paved the way for wider distribution.[16]

Network shortcomings were initially an impediment to widespread ATM deployment. Using dedicated phone lines meant that ATMs needed to be located at bank branches or high-volume locations like large airports. Digital telephone networks, along with the introduction of the Windows operating system, dramatically changed how ATMs functioned, and paved the way for their introduction into retail locations like grocery stores. "With Windows," says Batiz-Lazo, "the ATM could in effect become a terminal of the bank's central computer, enabling key operating functions . . . as well as the integration with credit card clearing networks. . . . Through the credit card networks, one could use virtually any card at virtually any ATM."[17]

New manufacturers—Triton and Tidel—introduced lighter, cheaper machines in the mid-1990s, which saved money by initiating a communications channel with a bank's central computer only during a transaction, rather than being permanently connected.[18] These machines gave rise to a host of independent ATM deployers (IADs), which are responsible for the pared-down cash machines found in grocery stores, bars, and other locations where consumers need quick cash and financial institutions have little interest in supplying a networked ATM.[19] As IADs proliferated, local ATM networks were also being integrated with the international Visa and Mastercard payment rails, leading to an explosion of ATMs in the late 1990s.[20] After the terrorist attacks of September 11, 2001, impeded the movement of paper checks, the Check Clearing for the 21st Century Act, or Check 21, was passed, allowing banks to accept check deposits via photograph and paving the way for envelope-free deposits (and, eventually, deposits by mobile phone).[21] Today, travelers can access ATMs worldwide, while PINs are increasingly used for security in an array of nonfinancial systems. The humble—but far from simple—ATM is a ubiquitous part of many consumers' financial lives.

Cooperative ATMs

In the early 1980s, as large banks began to build up their ATM networks, a group of California credit unions decided to collaborate in order to stay competitive. Launched in 1981, the CO-OP Network of shared ATMs allowed credit unions to offer their members greater access and a wider geographic network. That strategy is still proving effective: as the largest credit-union-only ATM network in the United States, CO-OP Financial Services now provides nearly 30,000 ATMs to participating credit union members.[22]

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CHAPTER 4

Credit Unions and ATMs: What We Learned

The following are some key insights derived from our conversations with ATM experts.

The ATM Is a Physical Thing

It may seem obvious, but an ATM is a physical object: heavy, mechanically complex, perhaps exposed to the elements. Like any machine, it depreciates, and requires regular, labor-intensive maintenance. "It's expensive," explains Erin Kolb, senior director of Visa's global

ATM network, "because it's boots on the ground. It's a physical thing. And it's not just like if something's broken on a website, [where] you can just change the code." As with all hardware, certain assumptions are baked into the construction of an ATM, both by the engineers who build the machine and by the user experience designers who create its interface. Some machines are intended to be easy to connect to a financial institution's core processor; others are optimized for sturdiness and longevity, or designed to be sleek, intuitive, and easy to use. Not all ATMs are built alike, and the physical differences from one machine to another—as well as the key distinctions between ATM and online banking services—will have wide-ranging implications for your institution.

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Credit union representatives told us that they feel challenged by the near-constant need to update and maintain ATMs and to reduce downtime. One third-party ATM service provider refers to this as the "endless cycle" of upgrades—hardware, software, regulatory compliance. As machines age, they require more frequent maintenance. At Michigan State University Federal Credit Union (MSUFCU), explains CFO Sara Dolan, a fleet of mostly five-to-eight-year-old machines generated "more maintenance calls . . . more downtime, and it wasn't a great experience for our members." The organization updated its ATM strategy, she explains, which ultimately led it to reevaluate ATM locations, switch manufacturers, and replace the entire fleet with touchscreen machines. But even a hardware overhaul can delay the inevitable for only so long: ATMs are continually aging and will always need updates.

ATM as Billboard

More than just a cash machine, the ATM serves as a billboard for the credit union and a reassuring and convenient touchpoint for members, even if they never use it. "We do get a lot of feedback that 'You guys are everywhere! I see you everywhere!'" says Ami Iceman-Haueter, assistant vice president of research and digital experience at MSUFCU. A lot of that feedback, she adds, "is actually [based on] seeing our ATM or ITMs [interactive teller machines], or the wrapping or logo," which creates the "perception that we are accessible." This effect persists, notes Dolan, even when members are not frequenting the locations they see: "I think there's a comfort level—even if I've never used this ATM or I've never used this branch, I know it's there if I need it." ATMs create visibility within a community for the credit union, simultaneously offering a sense of security for members and an invitation for nonmembers.

"I think there's a comfort level—even if I've never used this ATM or I've never used this branch, I know it's there if I need it." —SARA DOLAN, CFO, MSUCFU

The ATM can be a powerful marketing tool. Increasingly sophisticated software has allowed financial institutions to customize the look and feel of the user experience, from the "welcome" screen, to the "wait" screen (during transaction processing), to the final "thank you" screen. These, says Kathy Snider, senior vice president of Engage products at CO-OP Financial Services, are critical moments for branding and a personal touch. "Think about it as a channel for advertising," she advises, "promoting other products and services that the credit union has, carrying that brand message through." Paul Wilmore, CMO of Cardtronics, puts it more bluntly: "I've got 60 seconds of someone's undivided attention with a two-way communication in real time," he says. "There's a lot I can do with that."

Imagine if, while waiting for your cash at an ATM, you saw a screen that said, "Hey, while you're waiting, have you checked out our auto loan rates recently?" The screen could go on to ask if you want to be contacted by a credit union representative, Snider notes, with simple yes and no buttons. In this way, she says, ATMs "have become an extension of the branch and of the brand." CO-OP's director of ATM product management, Terry Pierce, notes that ATM screens can look and feel "consistent with how [credit unions'] websites are starting to look like, or their mobile applications." Software is making it increasingly possible for a credit union to pull its branding all the way through the member experience, from app to kiosk, website to branch. The challenge, of course, is for organizations to define a clear brand experience and then successfully deliver that same experience through all channels.

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Branch Transformation

Any conversation about credit union ATMs inevitably becomes a discussion of branch transformation. As more and more users self-select into self-service channels, says Wilmore, "the teller lines aren't as necessary as they used to be. And the branch is becoming a two-million-dollar ATM." After MSUFCU installed ITMs at several drive-throughs and observed members growing more accustomed to them, says Dolan, the organization decided to replace the pneumatic tube system at every branch with drive-through ITMs, "for efficiency from staffing and then use of space." Without the noisy tubes, she points out, branches will no longer require a separate, walled-off area or dedicated staff members waiting for members to drive up. Under a proposed new rule to update the Community Reinvestment Act, deposit-taking ATMs could be designated as facilities, which may enable credit unions to serve banking deserts with full-service ATMs in place of branches.[23]

Vantage West's members value convenience, says Richard Paige, director of marketing and product development at Vantage West, but in focus groups, they defined convenience as "their proximity to a retail location." Paige followed up: "When was the last time you walked into a bank branch?" The group "kind of cock[ed] their heads," he says, unable to recall. "And the point," he says, "is that you don't need a destination, you need a beachhead to give people a reason to do business with you, even if they never stepped foot in it." When moving into the Phoenix, Arizona, market, Paige says, Vantage West chose physical locations that were "highly visible, highly accessible" and as small as possible while maintaining the ability to serve members. Building 10 new branch locations in Phoenix, he notes, cost about the same as it would have to build 2.5 branches with the traditional layout. "The utility of the retail space is transitioning radically," Paige asserts. The branch is no longer "a destination that people have to pass through to be recognized as your consumer."

Defining Success from the Beginning

An ATM strategy must be shaped around a clear-eyed assessment of the problem that ATMs will solve. Too often, credit unions make changes—deploying new machines, switching manufacturers or service providers—to address symptoms of an underlying problem, without understanding what drives those symptoms. While frequent member complaints, falling metrics, or high transaction costs may seem like problems that can be fixed with new, upgraded, or relocated ATMs, credit unions should remember that "the technology is not going to be the silver bullet. You've got to look inward to the processes and the assumptions that we built around how members do business with us," says Andrew Downin, chief marketing and strategy officer at Vantage West Credit Union.

"The technology is not going to be the silver bullet. You've got to look inward to the processes and the assumptions that we built around how members do business with us." —ANDREW DOWNIN, CHIEF MARKETING AND STRATEGY OFFICER, VANTAGE WEST CREDIT UNION

Because credit unions are trying to "maximize value for the purpose of returning it to the membership," says Paige, they have an obligation to direct their limited resources—"time, effort, energy, capital, attention"—strategically. When it comes to ATMs, he adds, this requires strong, disciplined leadership, and perhaps even educating your board of directors. Everyone involved in making decisions about ATMs needs to clearly understand how a proposed plan supports the organization's goals, and how a successful implementation of that plan will be defined and measured.

The critical first step is to diagnose the need. Do your members need access to more retail locations? Perhaps an ATM is the solution. Do they need expanded hours of service? This is trickier; video ATMs or ITMs might be a solution, but call center staff will need to be trained to handle a wider range of services, and expanding call center hours requires resources. Does your credit union need to cut costs and improve efficiency? ATMs "may not be the solution," says Paige. He asks, "Are you going to improve efficiency? You're adding a lot of equipment that you have to depreciate. And you have to have personnel to manage that equipment. . . . And what you're proposing to eliminate are your lowest cost member-facing employees." On the other hand, if your organization needs to solve "an express consumer need to be able to access retail locations when you have the limited ability for people to physically go in the building," then ATMs may be the ideal remedy.

"The biggest challenge that I see from a technology perspective," notes Kolb, "is the organization needs to be really clear on how they define success as an organization, and then think about how the ATM can be used to leverage that success, not just chasing the shiny toy." When credit unions fail to think strategically about ATMs, she says, they run the risk of installing new technology and failing to put measures in place to support that technology's success. "The ATM is easily hidden or overlooked," Kolb explains. "Within any bank or financial institution, there [are] many support areas that do a little bit with ATM, but they're rarely articulated to a point where someone can say, 'How much do you spend on ATM . . . every year?' and [get] a really clear answer." It is difficult to pinpoint how a shift in ATM strategy might reduce operational expenses, she notes, without being able to calculate those expenses in the first place. ATMs can generate revenue from surcharges and interchange fees, but they also incur maintenance and upgrade costs, and their impact on member satisfaction and behavior is harder to quantify.

When credit unions fail to think strategically about ATMs, notes Erin Kolb, senior director of Visa's global ATM network, they run the risk of installing new technology and failing to put measures in place to support that technology's success.

Understanding Consumer Preferences

Let's say your organization has diagnosed a problem and is charting a path forward. But do you understand what your members want from the ATM experience and how they are likely to react to changes? Does your strategy align with the way members currently interact with the credit union, or are you trying to change their behavior? If the latter, are you prepared for the possibility that, even with investments in education and awareness raising, your members will stubbornly keep doing exactly what they have been doing?

Consumers overwhelmingly want ATMs to provide convenience, ease of access, and accuracy, says Paige: cash where they need it, when they need it, and without glitches. Where credit unions can go wrong is in failing to prioritize these aspects of the ATM experience. Installing technology that creates a learning curve for members to access cash and make deposits, for example, will frustrate and alienate some members. But that does not mean members do not want *any* technological upgrades: consumers are coming to expect a seamless experience across all platforms (web, mobile, ATM, call center, and branch). As credit unions look to the future, says Wilmore, a key undertaking will be "this continued evolution of how you're integrating the experience from your phone to a physical machine." Wilmore points to cardless ATM access as a technology that will "[open] up a whole other broad spectrum of activities" for members beyond deposits and withdrawals.

As credit unions look to the future, says Paul Wilmore, CMO of Cardtronics, a key undertaking will be "this continued evolution of how you're integrating the experience from your phone to a physical machine."

Cardless access also creates opportunities for a more personal touch. When a user can simply scan a code in their mobile app to link their account information, the ATM can display a personalized welcome screen ("Hi, Steve! It's great to see you again") and even wish the member a happy birthday. Members, especially those who rarely or never enter a branch, want to feel *known* to the credit union, Wilmore says. "It's personal touches . . . quite frankly, [that] make it feel like my bank cares about me a little bit. And it only takes little, teeny, things like that, that people remember." As ATMs evolve, it is becoming increasingly possible to extend the signature credit union experience—warm, friendly service—from the cold metal and plastic of an ATM.

As ATMs evolve, it is becoming increasingly possible to extend the signature credit union experience—warm, friendly service—from the cold metal and plastic of an ATM.

However, as much as ATM users want to feel that the credit union knows them, they do not necessarily want to interact with a live teller. In the first few months after MSUFCU installed drive-through ITMs, says Dolan, more than half of members were still opting for the ATM function rather than the interactive teller. Many members may specifically *want* to transact without ever interacting with a person, notes Kolb. "Don't make me talk to somebody if I don't have to," she jokes, "because that's very indicative of my generation in general, but it also is just indicative of the change that the [self-service] functionality enables." Wilmore points out that consumers have grown "very comfortable with self-help tools and self-help banking in particular." Members who select into self-service channels likely want to handle transactions on their own and may interact with a representative only when they need assistance.

Despite a growing preference for technology, consumers still need and use cash. "People have been predicting the demise of cash for years and years," says Kathy Snider, senior vice president of Engage products at CO-OP Financial Services, "but at the end of the day, there is still a consumer demand." Unbanked and underbanked households rely on cash, and it is also used for an array of complex purposes, like saving, budgeting, and privacy. Since "consumers still need cash," Wilmore says, Cardtronics has focused on "connecting cash to the digital economy," both in and out. The company recently signed a deal with Amazon Cash that will allow an ATM user to add cash directly to their Amazon balance using any deposit-taking Allpoint+ ATM in the United States. "So now, if I'm unbanked or underbanked, I've got a way to participate in the digital economy," Wilmore explains.

Deposits are increasingly a key function of ATMs, and they emerged as a growing source of ATM transactions for many institutions during spring 2020 lockdowns for COVID-19. "Whether it's cash or check deposits," says Pierce, "[that] is a functionality that I think has been critical to the ATM environment," especially when consumers were receiving paper stimulus checks. During lockdown, he says, consumers relied on CO-OP's nationwide ATM network for "cash withdrawals, [depositing] the checks, and access to making transfers."

As members grow accustomed to self-service banking, the demand for after-hours banking services is growing. "Really, one of the consistent things that credit unions hear from their members is that they would like some support outside of [traditional business] hours," says Kolb. Ideally, this is one of the ways in which the flexibility of mobile, online, and ATM channels can meet members' needs. The hope, Kolb says, is that video ATMs can enable "a banking or banker-like transaction, just facilitated through a machine," but she notes that credit unions that have successfully made this shift have "staffed appropriately," which means "they had the right procedures in place . . . and they enabled their people to have a very consumer-focused approach for how they deployed the technology." This might include retraining call center staff to function more like retail associates and thinking strategically about when and where virtual teller services will be available to members.

ATMs may fulfill a consumer desire for more privacy, in a world where our data are constantly being tracked, analyzed, bought, and sold. "Based on your credit card spend, in online spending and everything else," says Wilmore, "literally everybody can write a profile of exactly who you are based on all those [purchases], right? Even down to a sort of

SKU level: I know you bought this medicine at this pharmacy." When consumers balk at being tracked, Wilmore says, they may turn to the relative anonymity of an ATM to provide them with a layer of privacy. What if a sensitive online purchase could be made via cash deposit into an ATM, rather than through a website laden with tracking cookies? For the same reason, Wilmore says, when credit unions use member data to provide personalized service, they need to avoid seeming creepy. "I think what it comes down to is permission-based marketing," he says, "permission-based data collection." Members may want to feel known and seen by the credit union, but only to a point, and with consent.

When it comes to member preferences, specificity matters. It is essential to know what kinds of service and access your members expect and need. At Coastal FCU in Raleigh, North Carolina, the core membership of current and former IBM employees expected their financial institution to be on the cutting edge of technology. In 2003, Coastal says it became only the thirteenth financial institution in the world to offer online banking, and in 2011, the first financial institution to move 100% of its tellers to video. "I think their consumer base really expected them, as a credit union, to make those investments and to live on the edge and to deploy new technology," says Kolb. In rural Michigan, on the other hand, MSUFCU has found that ITMs need to be introduced slowly, and in the right places. Drive-throughs seem to work well, but "if you've taken the time out of your day to drive to our branch, park your car, and walk inside," Dolan says, "we don't think you want to talk to a video teller." The organization is working with a video banking partner, POPio, to enable its service team to "walk [members] through an online account opening, different digital transactions, help them through that kind of self-serve at home," explains Ben Maxim, MSUFCU's assistant vice president of digital strategy and innovation.

Members may have specific expectations of their credit unions, but at the same time, they are comparing the credit union with all the other financial institutions they bank or have banked with. "A lot of credit unions don't have the discipline to actually go out and learn from, not just their members, [but] . . . consumers," says Paige. "What we recognize is that the market is determined not by us, not by whether or not we're marginally better than we used to be." The concept of primary financial institution, the idea that a consumer chooses one bank or credit union to serve all their banking, borrowing, payment, insurance, and investing needs, "has been eviscerated over the last ten years," Paige asserts, and credit unions should expect that their members are using other financial products and fintech apps. Credit unions do not necessarily need to stay ahead of the curve, he says, but should put themselves "in a position to be able to move with the market," staying nimble and agile and as informed as possible. "You don't have to be out in front," he notes. "But if you're trying to draft and you're going slower than everyone else, you're not drafting—you're getting lapped."

Credit unions should expect that their members are using other financial products and fintech apps. Credit unions do not necessarily need to stay ahead of the curve, says Richard Paige, director of marketing and product development at Vantage West, but should put themselves "in a position to be able to move with the market," staying nimble and agile and as informed as possible.

Design for Diversity and Inclusion

Credit unions should approach diversity and inclusion holistically, intentionally examining all of the organization's practices. "Financial institutions need to have a lens for their inclusivity and how that extends out through all the channels that they operate," explains Kolb. This includes ATMs, which must be accessible and feel safe. Members will use ATMs only if they trust the device and feel that it is designed "for me."

To accomplish this, credit unions should ensure "they are not unintentionally excluding audiences from participating in their services," says Kolb, by failing to understand the specific challenges of different member segments. While regulations like the Americans with Disabilities Act have made financial services more accessible, compliance is just the beginning. Credit unions must be sensitive to and aware of members' preferences, needs, and barriers to access. For example, serving the defense community requires designing ATMs that can be used by wounded warriors. And there may be cultural barriers to overcome. Kolb explains that, while working at a financial institution where a large segment of the clientele lived paycheck to paycheck and some spoke English as a second language, it was not uncommon to walk into a branch and see a line of minority customers waiting to speak to a teller, while white customers queued for the ATM. This was not primarily a language issue, she notes, but rather, "some customers felt like they were able to self-service, and others didn't." Organizations that fail to be thoughtful in their approach to diversity may find that they are inadvertently creating channels from which some members feel excluded.

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Language matters. When it comes to self-service, "you want to think about the language capabilities of the consumer," explains Snider, "[and] what you might need for your branch demographic, your field of membership. You know who's going to be using the device." But language is rarely the whole story, and offering native language support may not even be what members want. Recent Filene research into virtual assistants found that credit unions' ESL members specifically *did not want* a virtual assistant to speak with them in their native language, because they believed they would not receive the same level of service.[24]

Finally, "there are populations for whom the ATM will never be a solution," Kolb says. Some populations may have low trust in institutions; asking members to trust a big metal box with a screen may present a challenge that no amount of education or awareness raising can overcome. If your credit union is struggling with low ATM usage at a particular site or with a specific segment, it may be time to find a new way to deliver services. "At the end of the day," Kolb says, "it is not always about technology; it's about meeting the needs of your members."

External Drivers of Change

To some extent, credit unions will always be at the mercy of external trends, shifts, and changes that affect ATM strategy. Operating systems gradually become obsolete, new technology revolutionizes payments, cash always seems to be dying, and fintechs are moving aggressively into all corners of the industry. How can credit unions stay abreast of constant changes while staying true to their mission?

In 2017, when financial institutions were forced to update their ATMs to the Windows 7 operating system, Kolb says, "it really forced everyone in the industry to stop and . . . make massive investments into the ATM." This was a watershed moment for many, she explains, because institutions were forced to ask themselves, "If I have to make this massive investment just to keep the ATM going, how do I define success with this tool? Is this just to keep the lights on? Is this something that I can use to further attract and retain my consumer?" The Windows 7 upgrade became the impetus for many institutions to view ATMs "more strategically, more broadly," Kolb says, and in many cases, it became a driver of positive change. On the other hand, the constant need to upgrade and maintain ATMs can be a pain point for credit union leaders. In early 2020, only a few years after the Windows 7 migration, ATM operators were once again forced to upgrade, this time to Windows 10. At CO-OP Financial, Snider describes maintaining ATMs as a "constant journey of change" and working to stay in compliance with regulations.[25]

What kinds of technology are on the horizon for ATMs? Contactless payments seem imminent. "Looking into the future," says Snider, "things will get even faster as we think about near field communications (NFC) being universally available." Leaders at MSUFCU are looking forward to adding NFC technology—user authentication via tap card—at their ATMs, Dolan says, to speed up transactions. She is also envisioning a completely contactless future, in which there is "the possibility to . . . pre-schedule an ATM withdrawal" via mobile or online banking. "And then you go to the ATM and you scan a QR code," she explains, and "your money just comes out, and it's faster and it's more convenient." When it comes to these two prevalent contactless payment technologies, the jury is still out on whether NFC (moving a smartphone or card within a few inches of the ATM) or QR codes (scanned by the ATM from the phone's screen) will ultimately prevail.[26] Of course, there are trade-offs to speed; as technology compresses the amount of time that users spend at ATMs, credit unions will have less time to cross-sell other products or create a user experience that is reflective of their brand.

What kinds of technology are on the horizon for ATMs? Contactless payments seem imminent.

Contactless payments also promise greater protection against fraud, by having fewer moving parts, rendering skimmers ineffective, and making it impossible to spy on users and capture their PINs. "There are a number of other fraud detection capabilities that have evolved over time," notes Snider, "just to make sure that [ATMs] remain really safe, secure, reliable." And if the interaction of a card with the ATM is becoming less compulsory, it stands to reason that someday, the physical card might become obsolete. "We're going to get to a point . . . where you don't even need the plastic," says Downin. He envisions a future in which Vantage West can offer "digital provisioning of a credit card, so that I don't even apply online; I've been pre-approved. I click the button and five to ten seconds later, that credit card is on my phone." Cardless ATMs would protect consumers in the event of a lost or stolen wallet and remove the anxiety of forgetting a PIN (or the security nightmare of leaving it on a sticky note attached to the card).

As credit unions shape their ATM strategies, they must do so against the steady drumbeat of reports that cash is dead. While overall the number of transactions and amount of cash withdrawn from ATMs have declined somewhat over the past decade, surveys indicate that US consumers still carry cash and even prefer it for certain kinds of transactions.[27] The Federal Reserve's Diary of Consumer Payment Choice study has tracked a slow decline in cash payments over the past several years, from 31% of total payments in 2016 to just 26% in 2019, but notes that nearly half of payments under $10 were made in cash.[28] Still, it can be unnerving to make capital investments in a technology centered around the use of cash. Even if cash use among members is waning, says MSUFCU's Dolan, "if you look at the alternative, it's [that] those members then come into the branch to get cash. That's not sustainable from our staffing model, so there is still a lot of value in having the machines available as that resource for our members."

As credit unions shape their ATM strategies, they must do so against the steady drumbeat of reports that cash is dead; yet surveys indicate that U.S. consumers still carry cash and even prefer it for certain kinds of transactions.

Another challenge that credit unions face is competitor fintechs, which, Wilmore says, “are eating the lunch of the big retailers right now.” Ultimately, he says, “I think credit unions, if they don’t watch out, are going to start to feel that pain as well.” Fintechs target many of the same populations that credit unions serve, he notes—“the underserved, the credit vulnerable or the cash-dependent”—but he contends that ATMs are the key differentiator for credit unions. “The fintechs, all these challenger banks, literally the day that they go live, they’ve got a national footprint,” Wilmore says, but they lack the “last yard to the consumer”: the ability to dispense and receive cash. If credit unions can partner with fintechs or help members navigate the ever-changing landscape of apps and online products, they may well be able to fend off challenges from the tech sector and articulate the credit union advantage.

Buy, Build, or Partner

Many credit unions find themselves partnering with third-party providers to supply and maintain ATMs. The benefits for a credit union can be substantial: while the machines still carry the credit union’s branding, the organization is “able to take a $2 million a year branch and convert that into a fraction of the cost, yet still maintain some connection . . . with their consumers,” says Wilmore, who represents Cardtronics, a third-party ATM provider. In many ways, the question of partnerships—how, who, when?—is also a question of branch transformation and how to deliver services more efficiently to members. Branches are expensive, and “the struggle that banks are trying to figure out,” Wilmore says, “is: How do I still touch the consumer?” For organizations that are seeing little return on investment in their own ATMs, given the costs of maintenance, upgrades, and obsolescence, a partnership can be a valuable move.

At Vantage West, Downin says, partnering with a provider is on their roadmap for consideration, “because we can’t be the experts at a lot of these types of systems [and] delivery channels that very focused startups or other companies can be.” He notes that it takes strong leadership to acknowledge an organization’s limits and capacity. “I’m happy knowing that we can’t be the best . . . at driving our own ATMs in the long run,” he explains. “There are others out there who can do that much better, and perhaps for a lower cost, and with a better end user experience when it comes to downtime.” Some of his confidence, Downin says, stems from relying on processes to thoroughly vet ATM partners for their capability, reputation, and ability to tailor solutions to meet Vantage West's needs.

Even with careful vetting, credit unions can (and often do) run into problems with their partners. This "can be really challenging for credit unions," says Kolb. "I think one of the things that I hear most from them is 'I'm so little that they don't ever pay attention to me.'" Credit unions are at the mercy of their providers' roadmaps for upgrades and improvements and may have limited flexibility to customize the user experience of third-party ATMs. In addressing member issues or planning for the future, they may find themselves constrained by vendor preferences and without much leverage to improve member satisfaction or design the ideal user experience for their members.

"When you think about ATM technology, you have to get all of the vendor partners aligned," says Dolan. "So you have your ATM vendor [for] the equipment, you have your card processor, and then you have your core system, and . . . those could be three different entities." MSUFCU's leadership has worked hard to build close partnerships with all of their vendors, Dolan notes, proactively working "to make sure that everybody's roadmap aligns." This takes the shape of quarterly update meetings in which her team asks vendors "what [we should] be getting ready for." Additionally, she says, MSUFCU actively pilots projects for its vendors, providing valuable input and feedback in exchange for getting a glimpse at technology in the pipeline. She recommends that credit unions "get to know your vendors and be candid with them on both sides, in what works well and what doesn't." Most importantly, she says, credit unions must explain their goals and desired outcomes. "As a client," she says, "you can't expect all of the [vendor's] offerings to align with what you want to do if you never share what you want to do."

Above all, deciding to enter into a partnership requires some real soul-searching on the part of the credit union: What problem are we trying to solve through partnership? What need are we trying to address? Credit unions often get pulled forward in a relationship "by someone else deciding that we needed to be the Porsche when I just wanted to be a Toyota," as Kolb put it. Because partnerships can put the credit union at the mercy of the partner's technology roadmap, and because most credit unions are smaller clients in relation to other financial institutions, there is the risk of sacrificing the organization's brand identity and technological destiny. Path dependencies get created by partnerships—and may only be solved by ending the partnership. Credit unions need to go into any potential relationship thinking about those downstream consequences. Things can line up well, though, when the problem to be solved is clearly identified by both parties, the partners check in with each other regularly to ensure ongoing alignment and undertake course corrections, and the partner is responsive to the credit union's needs.

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Credit Union Workforce Implications

To shift to a seamless, omnichannel model of service delivery, credit unions are going to have to rethink their front-line workforce. At Vantage West, says Bridges, the organization is moving to a "universal banker model," in which member-facing staff members are trained across all products so there are fewer handoffs. Vantage West is rolling out after-hours online banking, Bridges notes, but there are challenges to converting "what used to be a teller platform side into a universal role that needs to be able to handle all types of questions and transactions." The organization is still finessing the new workforce management practices, she says. When will staff members retrain? Will business bankers want to work evenings and weekends? Extended hours are what members love about ATMs, Bridges says, so with online virtual banking, "we have to be prepared to staff it appropriately and efficiently. And that's going to be a challenge." Merging call center and retail associate roles is difficult, but done successfully, it allows an organization to create a member experience defined by personal connection, the credit union differentiator. And it can save money. Kolb says that "one of the common traits that people are looking for today is: How can I shift transactions that a teller is doing [where] the cost per transaction is fairly high to a self-service channel?" Members may not want to perform complex transactions at an ATM, but they may be willing to do so online, with a little help.

Don't Believe the Hype

When it comes to ITMs and video ATMs, leaders are cautious about the buzz. "Is this something shiny and sexy that everyone should have?" asks Kolb. "Or is this just hype?" Wilmore agrees: "I think some of the big institutions have gotten out in front of themselves," he says, warning leaders not to "[try] to create a box that does everything." Members likely do not want to apply for mortgages or consumer loans at an ATM, Wilmore notes, and some consumers strongly prefer self-service to having to speak to a virtual teller. A tech-savvy membership base may appreciate the more sophisticated functions of an ITM, but among tech-resistant members, they can wind up just being an expensive ATM still used for only one or two functions. Some credit unions have even found that members resist ITMs based on fears that the machines are replacing beloved branch staff. More than one credit union has begun installing ITMs only to scale back the number of locations or even remove them entirely.[29]

Members likely do not want to apply for mortgages or consumer loans at an ATM, and some consumers strongly prefer self-service to having to speak to a virtual teller.

Credit unions that roll out ITMs must "have a clear vision for how they define success," says Kolb, "like: we are going to buy this tool. We're going to extend our hours. We're going to staff up our contact center, we're going to make the choices in order to drive our business towards making sure that this channel succeeds." Without these steps, Kolb says, and without members eager for new technology, ITMs are unlikely to be a successful move. Leaders may find themselves under pressure to investigate much-hyped technology, says Downin, and they must have "the discipline to say, 'Hey, I'm not going to chase after the seven shiny pennies'" while diagnosing and solving problems.

On the other hand, some new technologies may hold promise for credit unions in terms of enabling cardless access and reducing ATM upgrade and maintenance costs. The NextGen ATM consortium, a project of the ATM Industry Association (ATMIA), envisions "an API App model for ATMs which will enable mobile phones to replace cards as the main medium for transacting at ATMs," as well as "an interoperable vendor-agnostic operational environment to give ATM owners more flexibility and choice when migrating to new operating systems, while . . . reducing the risk of costly hardware upgrades associated with OS migrations." However, according to ATMIA, these standards and models are still being developed.

CHAPTER 5

Conclusion

COVID-19 has, at least temporarily, changed the way that people interact with each other, with their workplaces, and with their financial institutions. It is reasonable to assume that some of these changes will persist long after vaccines have been distributed and activities resume. Meanwhile, corporations are wondering what it means to be *connected* when physical proximity is dangerous, what it means to build a purely digital relationship when the hallmarks of human connection have long been sensory—a handshake, a shared view, a booming laugh. In one way, ATMs bridge this physical-virtual divide by allowing consumers to travel to a physical location to enact their financial lives, connect with their financial institutions, and receive something tactile—cash, a receipt, something to hold on to. In a different way, they exemplify the divide by separating members from the friendly tellers they used to visit and presenting them, instead, with a blinking screen.

ATMs bridge this physical-virtual divide by allowing consumers to travel to a physical location to enact their financial lives, connect with their financial institutions, and receive something tactile—cash, a receipt, something to hold on to.

The pandemic has also accelerated changing consumer expectations for the digital banking experience. If interacting with a financial institution—through any channel—is not seamless, convenient, and fast, consumers will find an app that better meets their financial needs. As credit unions evolve to stay ahead of consumer demand, they must make choices about how ATMs fit into their overall strategies. Those choices begin with a few simple questions: What do we value? What do our members want and need? Where will we direct resources in order to meet those needs? It makes sense for some organizations to own and maintain their ATM fleet, in order to have full control over the user experience, uptime, and ongoing technological development. For others, offering members access to a shared network may free up funds to invest in a superior digital banking experience. Some credit unions may find that ITMs enable the creation of low-cost branches with a lighter footprint, a "beachhead" for the brand that drives new account openings even though members rarely stop in. Others may find that co-branded ATMs best serve members' needs while simplifying demands on their staff. A credit union that can articulate its values and truly knows its members is already equipped to develop a successful ATM strategy.

A credit union that can articulate its values and truly knows its members is already equipped to develop a successful ATM strategy.

At the end of the day, Kolb notes, "ATMs should be used as a means to . . . achieve your goals, not the other way around." So perhaps, along with those simple questions, credit union leaders should be asking themselves a much bigger one: What should it feel like to be one of our members in a post-COVID future? What will they experience as they interact with us, whether in person, online, when requesting customer service support, or at an ATM? The best ATM strategies will serve to move credit unions from the user experience they are currently delivering to this vision of a world in which *connected* does not have to mean "nearby," and a warm, caring relationship can be built, one interaction at a time, through a diverse array of screens.

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25. There are alternatives to Windows, Batiz-Lazo points out in our interview with him, such as Linux (used in Brazil) and Triton’s proprietary operating system. Smaller credit unions might have the flexibility to migrate away from Windows, he notes, while larger financial institutions might struggle even to make the case for doing so.

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About Filene

Filene Research Institute is an independent, consumer finance think-and-do tank. We are dedicated to scientific and thoughtful analysis about issues affecting the future of credit unions, retail banking, and cooperative finance.

Deeply embedded in the credit union tradition is an ongoing search for better ways to understand and serve credit union members. Open inquiry, the free flow of ideas, and debate are essential parts of the true democratic process. Since 1989, through Filene, leading scholars and thinkers have analyzed managerial problems, public policy questions, and consumer needs for the benefit of the credit union system. We support research, innovation, and impact that enhance the well-being of consumers and assist credit unions and other financial cooperatives in adapting to rapidly changing economic, legal, and social environments.

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